

THE JOURNAL ON TELECOMMUNICATIONS & HIGH TECHNOLOGY LAW
is published semi-annually by the
Journal on Telecommunications and High Technology Law,
Campus Box 401, Boulder, CO 80309

POSTMASTER: Send address changes to JTHTL,
Campus Box 401, Boulder, CO 80309

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Journal on Telecommunications & High Technology Law,
an association of students sponsored by the
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Cite as: 1 J. TELECOMMS. & HIGH TECH. L. — (2002).

**JOURNAL ON
TELECOMMUNICATIONS & HIGH
TECHNOLOGY LAW**

Volume 1

2002

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From the Editors

We began the adventure of creating the Journal on Telecommunications and High Technology Law just as the industries were, by many accounts, beginning their fatal crashes. There probably isn't a single student on this journal who hasn't been asked why he or she has put this much effort into constructing a periodical geared towards exploring legal questions presented by a dying industry. The answer is simple – it isn't dying. When people want to communicate, they turn to wireless devices and e-mail more often than paper and pen. When they need to answer a question, they are more likely to consult the World Wide Web than their local research librarian. While we continue to move more and more toward a digital world, the legal questions go unanswered and the regulatory issues remain out of sync with the technology. These inquiries do not go away merely because accounting profits have. We are interested in them and we learn a great deal from exploring them. We are certain there are plenty of other minds out there anxious to tackle the challenge.

In taking on this project, we have encountered great number of people we wish to thank for a wide variety of assistance and effort. First, the Silicon Flatirons Telecommunications Program sponsored us both intellectually and financially, and without that organization we would not exist. Both Phil Weiser and Adam Peters were mentors and assets as we tackled uncharted waters. Also, Dean Harold Bruff and the faculty and staff of the University of Colorado School of Law had enough faith in us to believe that we could and would make this happen, in spite of the diminutive number of staff. Chairman Raymond Gifford of the Colorado Public Utilities Commission deserves special thanks for mentoring our Board during periods when our advisor was working remotely. Both Westlaw and the Jane Chu Foundation were generous enough to donate the computer equipment we used to produce this issue. Viva Moffat of Mastbaum & Moffat, LLP was kind enough to assist us with copyright and author permission questions. Junichi Tsuneoka designed our logo, a creative task we law students were reluctant to tackle. Without these gifts, we would not have been able to produce the work you hold in your hands.

Also, each and every one of these authors has been patient beyond our highest hopes. They were eager to submit papers to an as of then nonexistent publication, and were tremendously cooperative every step of the way. We are especially grateful for

the number of encouraging comments we received from our authors. We are extremely grateful that they had the audacity to join this undertaking and the tolerance for a group of students climbing our way up the learning curve. Obviously, without them there would be no Journal on Telecommunications and High Technology Law.

Lastly, the Board and Staff of Volume I was daring enough to sign up for a journal without a track record. They were dedicated enough to follow through when it turned out to be more work than we expected. Similarly, the Board and Staff of Volume II was willing to continue the commitment and finish where the Bar exam forced Volume I to leave off. Some of these individuals' names don't appear on the masthead of this volume either because they transferred into Volume II or stepped up early as 2L members and assisted. These folks, particularly Dave St. John-Larkin, Matt Kaiser, Craig Hein and Lori Hughes have been a saving grace for us.

We're both honored and excited to be a part of this adventure. We truly hope you'll enjoy reading the result of everyone's efforts.

James L. Wooll (Editor in Chief Volume I)
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JOURNAL ON TELECOMMUNICATIONS & HIGH TECHNOLOGY LAW

Volume 1

2002

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A symposium co-sponsored by the Journal on Telecommunications and High Technology Law and
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LAW AND INFORMATION PLATFORMS

PHILIP J. WEISER*

INTRODUCTION

This symposium presents an ideal “platform” to support the launch of a new journal focused on telecommunications and high technology law. Unlike more established areas of the law, the field of telecommunications or, as more aptly termed, information law, is not easily defined. To be sure, there is an ambitious statutory code (the Communications Act of 1934, as amended, most notably by the Telecommunications Act of 1996¹) and an agency charged with administering it (the Federal Communications Commission). There is even a leading casebook for teaching “Telecommunications Law.”² But as the history of telecommunications makes clear, legal regulation of this industry defies easy categorization, as it strays across legal spheres—into antitrust, intellectual property, and First Amendment law—as well as into non-legal disciplines—into principles of engineering and economics, for example.

With the rise of the Internet and recent advances in information technology, businesses, lawyers, and scholars have focused on how to create and implement a new regulatory regime premised on competition and technological convergence.³ Over time, this new regime will begin to transform telecommunications regulation into a particularized form of antitrust; that is, rather than follow its traditional role of addressing market power concerns directly, telecommunications regulation will increasingly

* Associate Professor, University of Colorado School of Law and Department of Interdisciplinary Telecommunications. Thanks to Ken Bamberger, Dale Hatfield, Jon Nuechterlein, Daniel Ravicher, Marius Schwartz, Jim Speta and Molly van Houweling for helpful comments and encouragement.

1. Pub. L. No. 104-104, 110 Stat. 56 (codified in scattered sections of 47 U.S.C.).

2. See STUART M. BENJAMIN ET AL., TELECOMMUNICATIONS LAW AND POLICY (2001).

3. For a description of the substance of this model, see Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1326 (1998). For a description of the procedural framework for this model, see Philip J. Weiser, *Chevron, Cooperative Federalism, and Telecommunications Reform*, 52 VAND. L. REV. 1, 6-7 (1999); Philip J. Weiser, *Federal Common Law, Cooperative Federalism, and the Enforcement of the Telecom Act*, 76 N.Y.U. L. REV. 1692, 1736-46 (2001).

focus on addressing these concerns indirectly by facilitating competition wherever possible.⁴ Moreover, because technological convergence—i.e., the provision of identical services through different technologies—will continue to blur the boundaries between the various segments of the information industries—telecommunications, computing, and entertainment—legal regulation in any of these areas will impact all of them.

We are still too close to the onset of the Internet age to determine whether it will spark a series of legal responses that can be studied and understood as part of a larger whole. More powerfully than any other legal scholar, Lawrence Lessig makes the case for how the law should understand and respond to these changes.⁵ Like other notable scholars in the area, Lessig's work seeks to understand the implications of technological convergence, the Internet, and the advent of digital technology across a number of related legal areas—i.e., telecommunications regulation, intellectual property, antitrust, and First Amendment law. Each of these areas of information law, however, only addresses a particular aspect of the challenge of information platform regulation. Thus, only by pulling back the lens to see how all of these areas interact can we appreciate the entire legal context for the regulation of information platforms.

Before moving on to discuss some of the specifics of information platform regulation, let me first acknowledge that this conference will give short shrift to a set of important information law concerns that will remain potential subjects for future events. Most notably, there will be only very limited discussion of how government will regulate content and commerce on the Internet. But as recent court cases involving Yahoo's website and the Child Online Protection Act make clear,⁶ these issues will keep information lawyers busy in the years to come. Second, because most information platforms relate to a network standard or physical infrastructure that underpins the delivery of Internet

4. As then-Chief Judge Breyer put it, “[e]conomic regulators seek to achieve [the goals of low prices, innovation, and efficient production methods] *directly* by controlling prices through rules and regulations; antitrust seeks to achieve them *indirectly* by promoting and preserving a [competitive] process that tends to bring [these goals] about.” *Town of Concord v. Boston Edison Co.*, 915 F.2d 17, 22 (1st Cir. 1990), *cert. denied*, 500 U.S. 930 (1991).

5. *See, e.g.*, LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (1999); LAWRENCE LESSIG, *THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD* (2001).

6. *See Yahoo!, Inc. v. La Ligue Contre Le Racisme et L'Antisemitisme*, 169 F. Supp. 2d 1181 (N.D. Cal. 2001); *Ashcroft v. ACLU*, 122 S. Ct. 1700 (2002) (evaluating constitutionality of Child Online Protection Act, Pub. L. No. 105-277, 112 Stat. 2681 (1998) (codified at 47 U.S.C. § 231 (Supp. V 1999))).

content, we will focus less on issues related to the ability of copyright holders to limit what will be accessible on the Net.⁷ My expectation, however, is that even issues like content regulation will make more sense—and fit more closely with other areas of information law—when evaluated in reference to the concept of information platforms.⁸

I. INFORMATION PLATFORMS, INSTANT MESSAGING, AND THE FUTURE OF INFORMATION LAW

I expect that even many in the telecommunications field are not accustomed to thinking about information platforms. For those coming from the computer world, you will be familiar with a “platform” as a synonym for an operating system.⁹ In the Internet world, there are actually a series of information platforms that build on top of one another. An instant messaging system, for example, builds on top of the basic Internet protocol, which can be accessed from any number of hardware devices connected to the Internet, including cell phones, a cable modem, or a computer that uses dial up access via an Internet Service Provider. What all of these information platforms have in common is that they rely on network standards around which complementary products must be developed. Thus, for an information platform to become successful, a sponsor of the technology must ensure “a critical mass of adopters and a critical mass of complementary software (and sometimes other components).”¹⁰

By directing our analysis to platforms, I believe that we can gain insight into three important themes. First, I believe that we can better understand exactly how telecommunications regulation, antitrust, intellectual property, and First Amendment law

7. For a discussion of this issue, see LESSIG, *FUTURE OF IDEAS*, *supra* note 5, at 250-58. *See also, e.g.*, *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001).

8. For another effort to build a framework for information law around the platform concept, see François Bar & Christian Sandvig, *Rules from Truth: Post-Convergence Policy for Access 21-22*, at http://www.stanford.edu/~fbar/Publications/Rules_from_Truth.pdf (last visited July 27, 2002) (paper presented at the *28th Annual Telecommunications Policy Research Conference*, Arlington VA, Sept 23-25, 2000).

9. *See* “Platform,” *WEBOPEDIA*, at <http://www.webopedia.com/TERM/p/platform.html> (last visited July 27, 2002). But as those familiar with the computer world understand, the platform concept is more complicated, as new middleware technologies, such as a browser, can also serve as a platform. *See United States v. Microsoft Corp.*, 253 F.3d 34, 53 (D.C. Cir. 2001) (explaining “middleware”).

10. Timothy F. Bresnahan, *New Modes of Competition: Implications for the Future Structure of the Computer Industry*, in *COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY* (Jeffrey Eisenach & Thomas Lenard, eds., 1999), available at <http://www.pff.org/microsoft/bresnahan.html> (last visited July 27, 2002).

intersect in their respective missions. Intellectual property—as well as real property—law defines the scope of a provider’s control of its platform, whereas antitrust and telecommunications law regulate whether—as well as when and how—access to a platform should be granted. The First Amendment provides a judicial check on congressional and agency regulation of information platforms, both in terms of whether access can be denied to would-be fair users of a platform¹¹ as well as to whether government can mandate access to an information platform.¹² In this regard, only *information* platform regulation—as opposed to, say, the regulation of physical platforms like railroads—implicates intellectual property and First Amendment issues.

Second, the information platform concept also enables lawyers to better identify and appreciate the relevant relationships in a particular system of production and distribution. Some providers will offer products that “substitute” for another—say, broadband transport by a DSL telephone line as opposed to a cable modem—while others will offer products that “complement” one another—such as, a broadband music provider that relies on a high speed connection. Using the platform concept, some products or services rely on or build on top of an information platform, thereby adding value to that “network,” whereas others provide an alternative platform. As a number of economists have explained, how rival platforms relate to one another and would-be complementors raises a number of competitive issues, with the issue of whether and how interoperability is managed being paramount.¹³

The final crucial distinction highlighted by the platform concept is that it reflects the Internet’s layered architecture. In short, the Internet operates as a modular system, where the critical commonality lies at the logical layer, with the open Transmission Control Protocol/Internet Protocol (TCP/IP) standard, and at the physical interconnection points between backbone networks. This “end-to-end” and open architecture network design allows for diversity of the modes of physical access as well as a plethora of applications and content developed to work with the

11. See, e.g., *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001) (evaluating constitutionality of Digital Millennium Copyright Act’s access restrictions).

12. See, e.g., *Turner Broad. System, Inc. v. FCC*, 512 U.S. 622 (1994) (evaluating constitutionality of “must-carry” regulations).

13. For a good treatment of this subject, see Stanley M. Besen & Joseph Farrell, *Choosing How to Compete: Strategies and Tactics in Standardization*, 8 J. ECON. PERSP. 117 (1994).

TCP/IP standard.¹⁴ As envisioned by the Internet's pioneers, the end-to-end principle envisions that the intelligence capabilities of the network (i.e., the ability to activate an application) will remain at the edges and that the middle of the network will function as a "dumb pipe."¹⁵ In an era where proprietary development introduces technologies that deviate from the end-to-end principle by providing for a more intelligent network, the Internet's architecture may well come to resemble something other than the one envisioned by the leading Internet pioneers.¹⁶

The current state of the relevant fields that comprise "information law" reflects the legacy of regimes that have grown up without the benefit of cross-fertilization or reform efforts to ensure that they work well in tandem with one another. To be sure, there are exceptions among the relevant court cases, such as Judge Boudin's concurrence in the *Lotus* case.¹⁷ But in terms of implementing a coherent competition policy strategy, information platform regulation is still at a fairly immature stage.

To provide a context for understanding the nature of information platform regulation, consider the instant messaging (IM) market. For those uninitiated with the product, IM provides its users with an opportunity to use the Internet for real-time communication with one's "buddies," as AOL,¹⁸ who is credited with popularizing the system, puts it.¹⁹ As of yet, however, the vari-

14. For this reason, the Internet's architecture can be described as having an hourglass shape, with the logical layer—the TCP/IP standard—at the middle, the physical layer below it, and applications (as well as content) riding on top of it. See NATIONAL RESEARCH COUNCIL, *THE INTERNET'S COMING OF AGE* 126-27 (2001) (describing Internet architecture); Kevin Werbach, *A Layered Model For Internet Policy*, 1 J. TELECOMMS. & HIGH TECH. L. 37, 59-65 (2002) (same).

15. See Dale Hatfield, *Preface*, 8 COMM.LAW CONCEPTS 1, 1 (2000). For a classic articulation of the principle, see Jerome H. Saltzer et al., *End-to-End Arguments in System Design*, 2 ACM TRANSACTIONS IN COMPUTER SYSTEMS 277 (1984), reprinted in *INNOVATIONS IN INTERNETWORKING* 195 (Craig Patridge ed., 1988).

16. For a discussion of the forces challenging the end-to-end principle, see David D. Clark & Marjory S. Blumenthal, *Rethinking the Design of the Internet: The End to End Arguments vs. the Brave New World* (Aug. 10, 2000), at <http://www.tprc.org/abstracts00.rethinking.pdf>.

17. See *Lotus v. Borland*, 49 F.3d 807, 821 (1st Cir. 1995) (Boudin, J., concurring), *aff'd by an equally divided Court*, 516 U.S. 233 (1996).

18. Technically, AOL offers two distinct instant messaging products: AOL's Instant Messenger (AIM) and ICQ's instant messaging service. See Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner, Inc., Transferee, *Memorandum Opinion and Order*, 16 F.C.C.R. 6547, 6606 n.379 [hereinafter AOL Order]. For simplicity purposes, I shall refer to two products collectively as "AOL's instant messaging services."

19. For a primer on the technology, see Jeff Tyson, *How Instant Messaging Works*, HOWSTUFFWORKS.COM, at www.howstuffworks.com/instant-messaging.htm (last visited July 27, 2002).

ous IM providers have not made their systems—or “information platforms”—interoperable.²⁰ In response, Microsoft and other rivals insisted first that AOL accept an open standard promulgated by the Internet Engineering Task Force (IETF), a leading Internet standard setting body, and later requested that the FCC impose such a condition in approving the merger between AOL and Time Warner.²¹ Even with the calls for “open access,” IM users today, like the telephone networks of the early 1900s,²² cannot access another system without using two separate networks.

The instant messaging example provides rich fodder for law school exams and policy debates, and I have used it for both. Because it grew up on the Internet and thus defies the usual effort to label it as an issue for telecom regulation, intellectual property, or antitrust, it provides a quintessential case study for understanding information law as focused on the regulation of information platforms. In short, IM highlights the role of intellectual property in defining the scope of the right at issue as well as how both antitrust and telecommunications regulation—subject to First Amendment limitations—can limit the scope of the relevant property right.

In a debate that dates back to the late 1970s, when Congress provided copyright protection for computer programs,²³ the intellectual property status of IM raises the issue of whether its product interfaces warrant protection.²⁴ The answer to this question

20. See AOL Order, *supra* note 18, at 6619-20; see also Don Clark, *AOL and Apple Team Up to Offer Instant Messaging*, WALL ST. J., July 30, 1999, at B6 (noting that Instant Messaging could be a very important platform and discussing efforts to create open access to AOL's customer base); Don Clark, *Internet Rivals Attempt to Open Up AOL's Instant Message System*, WALL ST. J., July 26, 1999, at B2 (detailing AOL's efforts to keep other services from accessing its Instant Messaging platform); Jim Thompson, *Microsoft and AOL Wage War Over Instant Messaging*, BOARDWATCH, Dec. 1999, at 78, 78-79 (noting that AOL justified its resistance to open standards on the ground that it would compromise some of its software's features and its users' security).

21. See Nick Wingfield, *Changing Chat: Will Instant Messaging be the Dial Tone of the Future?*, WALL ST. J., Sept. 18, 2000, at R38 (noting efforts to lobby the FCC).

22. See MILTON L. MUELLER JR., UNIVERSAL SERVICE: INTERCONNECTION, COMPETITION, AND MONOPOLY IN THE MAKING OF THE AMERICAN TELEPHONE SYSTEM 45-46 (1997) (noting situation where AT&T refused to interconnect).

23. See FINAL REPORT OF THE NATIONAL COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS (July 31, 1978); see also H.R. Rep. No. 96-1307, Part I, 96th Cong. 2d Sess. 23 U.S.C.A.N. 6460, 6482 (1980); *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240, 1252 (3d Cir. 1983) (noting that Congress “wrote into law the majority's recommendations almost verbatim”).

24. See, e.g., Pamela Samuelson, *CONTU Revisited: The Case Against Copyright Protection for Computer Programs in Machine-Readable Form*, 1984 DUKE L.J. 663 (criticizing the basic premises and methodology of the report).

would appear to be yes, but a series of exceptions leaves the issue cloudy.²⁵ As of yet, the providers of IM, particularly AOL, have been able to keep rivals from accessing its Names and Presence Directory (NPD) through technological fixes.²⁶ Thus, unlike the record companies in the *Napster* litigation, AOL has not gone to court to enforce its proprietary rights to its IM system.²⁷ But in the event that AOL could not prevent a software program from facilitating interoperability,²⁸ it may well test its IP rights as a means of defeating interoperability.²⁹

Intellectual property law actually presents a variety of puzzles related to regulating open access to rival products.³⁰ Significantly, the issue of interoperability will increasingly be raised in the legal arena because standard setting committees, such as the IETF, are no longer able to get out in front of the market to address the issue, as they were able to do when the Internet community was smaller and largely comprised of non-commercial actors.³¹ In light of the changing nature of the Internet community, standard setting—and particularly whether a standard is open or under proprietary control—will be a compelling topic for years to come. Finally, if a provider of IM ever sues AOL for monopolistic conduct under Section 2 of the Sherman Act,³² that

25. See, e.g., *Bateman v. Mnemonics, Inc.*, 79 F.3d 1532, 1547 (11th Cir. 1996) (stating that “[i]t is an incorrect statement of the law that interface specifications are not copyrightable as a matter of law,” but then setting forth a series of exceptions, most notably, fair use and misuse).

26. See Rajiv Chandrasekaran, *Clash of the Titans Erupts Over AOL's Instant Messaging*, WASH. POST, July 24, 1999, at A1; Don Clark, *Microsoft Ends Row with AOL Over Instant Messaging*, WALL ST. J., Nov. 18, 1999, at B13.

27. See *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1024 (9th Cir. 2001).

28. See Ben Charny, *Cell Phone IM Plan Supports Interoperability*, CNET NEWS.COM, at <http://news.cnet.com/news/0-1004-200-7866405.html> (Nov. 13, 2001) (noting that some software companies have developed means of facilitating interoperability); see also Paul Festa, *IM Start-up on Crash Course with AOL*, CNET NEWS.COM, at <http://news.com.com/2100-1023-840981.html> (Feb. 20, 2002) (detailing clashes between AOL and PalTalk); Lisa M. Bowman, *AOL Blocks Instant Messaging Start-up*, CNET NEWS.COM, at <http://news.com.com/2100-1023-826625.html> (Jan. 30, 2002) (detailing clashes between AOL and Trillian).

29. See, e.g., *Am. Online, Inc. v. Nat'l Health Care Discount, Inc.*, 121 F. Supp. 2d 1255 (N.D. Iowa 2000) (legal action by AOL against marketers who have found ways to circumvent filtering programs and who continue to “spam” AOL customers).

30. See Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 102 COLUM. L. REV. (forthcoming 2003).

31. See Margaret Jane Radin & R. Polk Wagner, *The Myth of Private Ordering: Rediscovering Legal Realism in Cyberspace*, 73 CHI.-KENT L. REV. 1295, 1309 (1998) (“Achievement of stability in self-regulated commons is often thought to be dependent on the degree to which the cooperators are a close-knit, homogenous cultural group.”).

32. Section 2 prohibits any individuals or firms from acting to: “monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to

would raise the question as to whether an intellectual property right immunizes a company from a duty to deal under antitrust.

The only existing regulation of instant messaging interoperability comes from the FCC's decision to impose a limited interconnection mandate as part of its approval of the AOL/Time Warner merger.³³ It is only appropriate that this action constitute a harbinger for the future of information law, as the merger itself presented an unambiguous commitment to a convergence between computing, entertainment, and telecommunications. As befitting of such a venture, the FCC's decision to regulate AOL's instant messaging product provides an important glimpse at some of the issues ahead in the emerging field of information law.³⁴

II. DIGITAL TECHNOLOGY, TELECOMMUNICATIONS REGULATION, AND THE CHALLENGE OF INFORMATION LAW

The instant messaging case highlights how the central tool of telecommunications law—an interconnection mandate—presents regulators with a bad case of *déjà vu*. At the dawn of telecommunications regulation in the early 1900s, policymakers allowed AT&T to buy up competitors, declined to order interconnection, and ultimately concluded that “the network” was a natural monopoly and that a single firm should provide telecommunications service to all consumers.³⁵ In most cases, this company was the Bell System and, to protect consumers from this supposed natural monopoly, the federal and state governments established regulatory commissions to regulate all parts of the business. As for wireless communications, the need for coordination so as to avoid interference provided the justification for government regulation. In this case, the government not only licensed monopoly providers, but also embarked on a regime of content regulation as justified by the existence of such monopolies.³⁶

monopolize any part of the trade or commerce among the several States.” 15 U.S.C. § 2 (1994).

33. See AOL Order, *supra* note 18.

34. For differing assessments of this theme, compare Philip J. Weiser, *Standard Setting, Internet Governance, and Self-Regulation*, 28 N. KENT. L.J. 822 (2001) (evaluating it critically) with Daniel L. Rubinfeld & Hal J. Singer, *Open Access to Broadband Networks: A Case Study of the AOL/Time Warner Merger*, 16 BERKELEY. TECH. L.J. 631, 637, 674 (2001) (endorsing it).

35. For a description of this history, see MUELLER, *supra* note 22.

36. The Supreme Court upheld this regulatory regime, as consistent with the First Amendment, in *NBC v. FCC*, 319 U.S. 190, 236-37 (1942).

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Given the command-and-control approach of early telecommunications law, it coexisted in an uneasy fashion with antitrust policy and First Amendment law. In terms of antitrust, the Bell System faced a continuous set of questions as to whether its commitment to “one system, one service” reflected sound economics, or merely the use of regulation to prevent competition.³⁷ Ultimately, antitrust—and technological change—prevailed, transforming the presumption of telecommunications law from one committed to monopoly regulation to facilitating competition.³⁸ The FCC’s decisions along the way marked an unsteady path, but even before the Telecommunications Act of 1996 settled the question by statute, the FCC’s commitment to competition (as well as that of a number of states) was well established.³⁹

As to wireless communications, the prospect of the third generation wireless telephone service and the transition to digital television present the FCC with a number of intriguing opportunities. Similarly, the advent of first cable and then satellite technology put to rest—at least in the marketplace, if not in the law books⁴⁰—the idea that spectrum was “scarce” and deserved special First Amendment treatment.⁴¹ As different communication technologies all move to a digital architecture, telecommunications will increasingly defy classification by the particular conduit used to deliver the message. The medium will no longer, at least in terms of the “pipe” used to deliver it, be the message. Instead, a bit will be a bit will be a bit.⁴²

37. See James B. Speta, *Maintaining Competition in Information Platforms: Some Thoughts on Vertical Restrictions in Emerging Telecommunications Markets*, 1 J. TELECOMMS. & HIGH TECH. L. 185, 195-202 (2002) (discussing antitrust issues of Bell System).

38. See *United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982), *aff’d sub nom*, *Maryland v. United States*, 460 U.S. 1001 (1983).

39. For a discussion of the competitive and regulatory landscape before the 1996 Telecom Act, see Craig D. Dingwall, *The Last Mile: A Race For Local Telecommunications Competition Policy*, 48 FED. COMM. L.J. 105 (1995).

40. To this day, *Red Lion Broad. Co., Inc., v. FCC*, 395 U.S. 367, 390 (1969), which set forth a lower First Amendment standard for broadcast regulation based on a scarcity rationale, remains good law. See also *Time Warner Entm’t Co. v. FCC*, 105 F.3d 723 (D.C. Cir. 1997) (applying *Red Lion* in upholding regulation of direct broadcast satellite licenses). For a discussion of the different standards in First Amendment analysis, see Ellen P. Goodman, *Bargains in the Information Marketplace: The Use of Government Subsidies to Regulate New Media*, 1 J. TELECOMMS. & HIGH TECH. L. 217 (2002).

41. For a discussion of this issue, see Philip J. Weiser, *Promoting Informed Deliberation and a First Amendment Doctrine for a Digital Age: Towards a New Regulatory Regime for Broadcast Regulation*, in *DELIBERATION, DEMOCRACY, AND THE MEDIA* 11 (Simone Chambers ed., 2000).

42. See David S. Isenberg, *The Dawn of the Stupid Network*, ACM NETWORKER, Feb./Mar., 1998, at 24, 28, available at www.isen.com/papers/Dawnstupid.html

The two fundamental transforming dynamics of the information age appear to be the digital transformation predicted by Negroponte⁴³ and the networked world envisioned by Metcalfe.⁴⁴ In particular, the Internet has emerged as the “killer platform” that provides individuals and companies with an opportunity to deploy multimedia applications, constrained only by their imagination, current data processing technology, and the bandwidth available to users. Unlike proprietary networks, the Internet does not rely on a particular form of technology or belong to any individual; rather, it is a “network of networks,” whose key protocols are all in the public domain. Most particularly, the Internet reflects a commitment by a series of networks to “interconnect” and use the common TCP/IP protocol.⁴⁵

Telecommunications regulation is still in the early stages of responding to the new reality defined by the Internet. A couple of years ago, Vint Cerf and Bob Kahn, two early Internet pioneers, predicted that the Internet will overtake telecommunications usage sometime shortly after 2006.⁴⁶ At some point down the road, traditional telecommunications usage as we knew it—either through the use of fax or voice communications—may ultimately cease to exist at all, with all traffic traveling over the Internet as a digital application—be it, voice, video or data.⁴⁷ As

(“Because IP makes the details of the network irrelevant, all that matters is that the bits sent by your machine are received by my machine, and vice versa.”).

43. See NICHOLAS NEGROPONTE, *BEING DIGITAL* (1995).

44. Bob Metcalfe, the founder of 3Com, is credited with the insight that a network of computers grows quadratically more valuable as more individuals are connected to it. See George Gilder, *Metcalfe’s Law and Legacy*, *FORBES* ASAP, Sept. 13, 1993, at 158, 160. In the economics literature, this point is often described as a “network externality” or “network effect.” See Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 *J. ECON. PERSP.* 93, 94 (1994) (“Because the value of membership to one user is positively affected when another user joins and enlarges the network, such markets are said to exhibit ‘network effects,’ or ‘network externalities.’”).

45. See Robert E. Kahn & Vinton G. Cerf, *What is the Internet (and what Makes it Work)*, INTERNET POLICY INSTITUTE, at http://www.internetpolicy.org/briefing/12_99_story.html (Dec. 1999); see also James B. Speta, *A Common Carrier Approach To Internet Interconnection*, 54 *FED. COMM. L.J.* 225, 245-47 (2002).

46. As Kahn & Cerf explained:

[T]he total numbers of host computers and users have been growing at about 33% every six months since 1988—or roughly 80% per year. The telephone service, in comparison, grows an average of about 5-10% per year. That means if the Internet keeps growing steadily the way it has been growing over the past few years, it will be nearly as big as today’s telephone system by about 2006.

Kahn & Cerf, *supra* note 45.

47. See Werbach, *supra* note 14, at 45 (“The Internet is going to swallow telecommunications. Data traffic is growing much faster than voice, and promises to dominate future capacity demands on all major networks.”).

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Kevin Werbach convincingly explains, this specter haunts telecommunications regulation and requires that, at some point, telecommunications regulation will be linked inextricably with Internet regulation.⁴⁸ Put simply, it makes no sense to regulate telecommunications and leave the Internet unregulated.⁴⁹

In the wake of the Telecommunications Act of 1996, which embraced technological convergence and sought to facilitate competition,⁵⁰ the FCC is still struggling to revise its legacy regulatory framework to better respond to technological realities. Given that the Act barely contemplated the importance of the Internet and did not disturb a category-based regulatory strategy (e.g., one with distinct approaches for broadcast, cable, and telephone networks), this should not be a surprise.⁵¹ A classic distinction that the FCC employed to avoid regulating the computer industry was its judgment that “enhanced” services were ancillary to communications and could be left unregulated by the FCC. In the Telecom Act, Congress adopted the AT&T consent decree court’s term, “information services,” to replace the earlier

48. *Id.* at 38 (calling on policymakers to “reformulate communications policy with the Internet at the center”); *id.* at 46 (“communications policy will be a subset of Internet policy, rather than the reverse”).

49. Early commentary—and even policymakers—suggested that the Internet could exist in a hermetically sealed unregulated universe. *See, e.g.*, David R. Johnson & David G. Post, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367 (1996); Presidential Directive on Electronic Commerce, at <http://www.ecommerce.gov/presiden.htm> (July 1997). Fortunately, the current FCC Chairman takes a different perspective. *See* Law in the Internet Age, Remarks of Michael K. Powell, FCC Commissioner, Before D.C. Bar Ass’n Computer and Telecomms. Law Section and the Fed. Comm. Bar Ass’n, (Sept. 29, 1999), at <http://www.fcc.gov/Speeches/Powell/2000/spmkp002.html> (“The important public policy question is not whether to regulate the Internet or not, as if that were a realistic choice. Rather, it is how to regulate it responsibly in a manner that maximizes consumer welfare and does not stunt its infinite growth and innovation potential.”).

50. *See* Pub. L. No. 104-104, purpose statement, 110 Stat. 56, 56 (1996).

51. *See* Werbach, *supra* note 14, at 42 (“The 1996 Act did not contemplate the radical changes the Internet is bringing to the communications world.”); John Nakahata, *Regulating Information Platforms: The Challenge of Rewriting Communications Regulation from the Bottom Up*, 1 J. TELECOMMS. & HIGH TECH. L. 95, 96 (2002) (“Despite all the talk of convergence, regulation in the United States has not kept pace.”); *id.* at 97 (“Congress has yet to acknowledge that it has a significant role to play in addressing the implications of convergence and the rise of the Internet Protocol for today’s regulatory system.”); J. SCOTT MARCUS, THE POTENTIAL RELEVANCE TO THE UNITED STATES OF THE EUROPEAN UNION’S NEWLY ADOPTED FRAMEWORK FOR TELECOMMUNICATIONS 1 (FCC, OPP Working Paper No. 36, July 2002), available at http://www.fcc.gov/Daily_Releases/Daily_Business/2002/db0711/DOC-224213A2.pdf (the Internet decouples the application—e.g., voice or video—from the underlying method of transmission—i.e., cable or telephony); NATIONAL RESEARCH COUNCIL, BROADBAND: BRINGING HOME THE BITS 32 (2002) (Telecom Act “does not fully reflect the convergent nature of broadband”—i.e., the ability to deliver similar set of services from the Internet).

“enhanced services” definition and sought to maintain them as unregulated services.⁵² Thus, how the FCC classifies and regulates services like Internet telephony that blend the two will shape profoundly the structure of the next generation regulatory regime.⁵³

To protect enhanced service providers and afford them reliable vertical access to the telecommunications network, the FCC imposed on local telephone companies a series of regulations under its Computer I, Computer II, and Computer III regimes.⁵⁴ Initially, these regimes provided for structural separation between an incumbent provider’s telecommunications and enhanced service operations, but ultimately allowed the incumbents to provide such services on an integrated basis. In so doing, however, the Commission took the important step of insisting on non-discriminatory access obligations to ensure that the telecommunications network could be used for a variety of services (e.g., Internet access) and that rival companies could market equipment like modems that could connect to the network. As the Internet developed, it became clear that it would be used for, among other things, voice communication in a manner similar to the circuit-switched telephone network and thus the old hard-and-fast distinction between the regulated telecommunications world and the unregulated Internet world would be difficult to maintain.⁵⁵ Even in the face of this reality, some policymakers still call for an “unregulation” of the Internet under a model consistent with the Computer inquiries.⁵⁶

52. 47 U.S.C. §153(20) (Supp V. 1999); *see also* Joseph D. Kearney, *From the Fall of the Bell System to the Telecommunications Act: Regulation of Telecommunications*, 50 HASTINGS L.J. 1395, 1414, n.55 (1999) (discussing term).

53. *See* Werbach, *supra* note 14, at 42-44 (discussing FCC’s struggles with the issue). R

54. *See* Amendment of Section 64.702 of the Commission’s Rules and Regulations, *Final Decision*, 77 F.C.C.2d 384, 432-33 (1980). Numerous commentators have detailed this history. *See* Steve Bickerstaff, *Shackles on the Giant: How the Federal Government Created Microsoft, Personal Computers, and the Internet*, 78 TEX. L. REV. 1, 7-21 (1999); JASON OXMAN, THE FCC AND THE UNREGULATION OF THE INTERNET (FCC, OPP Working Paper No. 31, July 1999), *available at* http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp31.pdf.

55. *See* Bar & Sandvig, *supra* note 8, at 19 (such efforts create “dysfunctional distinctions meant to reconcile new communications services with old rules”). For an example of some of the issues that challenge such distinctions, *see* Federal-State Joint Board on Universal Service, *Report to Congress*, 13 F.C.C.R. 11501, 11541, 11543 (1998) (adopting a “wait and see” approach to regulating Internet telephony); Speta, *supra* note 37, at 203-205 (discussing Internet backbone issue); Dale Hatfield, *supra* note 15, at 2-3 (same). R
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56. *See* OXMAN, *supra* note 54. A more appropriate conception along these lines would not be to call for unregulation as such, but simply to resist imposing legacy R

The Internet's open architecture depends on a series of layers, each of which can potentially be controlled by a proprietary "gatekeeper." Consequently, policies for the Internet may not be able to simply assume that the gates will be at the "physical" layer, though protecting competition at that layer may be a particularly suitable job for telecommunications regulation. Depending on how the Internet evolves, an Internet portal, Internet Service Provider, or possibly a browser product, could attempt to leverage a dominant position in a manner that might discriminate against rival applications.⁵⁷ As the FCC faces requests to regulate either physical/hardware or logical/software Internet products, it will undoubtedly revisit its historic reluctance to regulate the Internet and, in order to discipline itself and guide companies, it will need to articulate a clear analytical structure for examining requests to regulate the architecture of new information platforms.⁵⁸

In the face of the Internet's emergence and the advent of competition between information platforms that are retooling to compete to deliver digital services, different schools of thought have rushed in to provide guidance to policymakers. In an ambitious critique of agency regulation, Peter Huber contends that there is no independent role for telecommunications regulation, underscoring that questionable past decisions render doubtful any potential that the FCC would play a useful role in facilitating and safeguarding competition.⁵⁹ In an alternate course, which I think much more promising, Kevin Werbach's thoughtful essay suggests that telecommunications regulation should be viewed as an instrument of Internet policy and, additionally, view its own task in light of the architecture that defines the Internet.⁶⁰ In a similar vein, a number of commentators, most no-

regulations lock, stock, and barrel. See Robert Pepper, *Policy Changes Necessary to Meet Internet Development*, 2001 L. REV. M.S.U.-D.C.L. 255, 259 (2001).

57. For a discussion of "leveraging" and the underlying economic considerations, see Joseph Farrell & Philip J. Weiser, *Modularity Vertical Integration, and Open Access Policies, Towards A Convergence of Antitrust and Regulation*, available at <http://stiet.si.umich.edu/researchseminar/farrell-Sept1.pdf> (forthcoming 2003).

58. See Weiser, *supra* note 34, at 846.

59. See PETER HUBER, *LAW AND DISORDER IN CYBERSPACE: ABOLISH THE FCC AND LET COMMON LAW RULE THE TELECOSM* 7 (1997) (arguing that the FCC "should shut its doors once and for all"); see also John W. Berresford, *The Future of the FCC: Promote Competition, then Relax*, 50 ADMIN. L. REV. 731, 736 (1998) (listing, among past failures of the FCC, its six year delay in allowing MCI to enter the private line long distance market and its twelve year delay in allowing entry into the mobile telephone market after it was technically feasible).

60. See Werbach, *supra* note 14, at 37-39. This approach also echoes the second generation Internet scholarship that rejects the non-regulation model set out by earlier commentators. See, e.g., Timothy Wu, *Application-Centered Internet Analysis*,

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tably Yochai Benkler, advocate using the Internet-type model of a common standard to enable spectrum to be regulated as a “commons” (in addition to, or instead of, through private property rights), where equipment providers and users are regulated through adherence to current protocols.⁶¹ In a move that suggests that the agency is willing to experiment with such an approach, the FCC recently approved the use of “ultrawideband” technology, which will provide equipment suppliers and service providers access to free, unlicensed spectrum, provided they adhere to certain technical limitations.⁶²

In evaluating the role of law in regulating information, there is a danger both of losing sight of the forest from the trees as well as getting ahead of the state of technology in evaluating appropriate policy. By developing an understanding of information law that is broader than the various technologies it is charged with regulating, the FCC can establish itself as a valued partner to antitrust and intellectual property law in regulating the converging worlds of telecommunications, computing, and entertainment.⁶³ In particular, the next several years will begin to reveal whether the FCC implements effectively a tripartite challenge: managing a transition from monopolized markets to competitive ones (at least as to ones where competition does develop), developing competition policy for an Internet age,⁶⁴ and protecting the public values it is charged to safeguard. To understand the scope

85 VA. L. REV. 1163, 1183 (1999) (“[S]tudy of the Internet also works from a sufficiently general denominator: the set of standards that define the Internet.”).

61. See Yochai Benkler, *Overcoming Agoraphobia: Building the Commons of the Digitally Networked Environment*, 11 HARV. J.L. & TECH. 287 (1998).

62. See Martin Reynolds, *FCC Cuts the Wires*, CNET NEWS.COM, at <http://news.com.com/2009-1033-839110.html> (Feb. 15, 2001); see also Amendment of Part 15 of the Commission’s Rules Regarding Spread Spectrum Devices, *First Report and Order*, 15 F.C.C.R. 16244 (2000) (allowing spread spectrum technologies, which can “hop” from different frequencies to one another, to operate on an unlicensed basis under Part 15 of the FCC’s rules).

63. Given the task before it, some commentators are understandably skeptical that the FCC can fulfill this role, at least in its current form. See Tom W. Bell, *The Common Law in Cyberspace*, 97 MICH. L. REV. 1746, 1750 (1999) (“[T]o judge from the Civil Aeronautics Board and the Interstate Commerce Commission, federal agencies that regulate networks appear uniquely vulnerable to fatal reforms.”); John F. Duffy, *The FCC and the Patent System: Progressive Ideals, Jacksonian Realism, and the Technology of Regulation*, 71 U. COLO. L. REV. 1071 (2000) (arguing that the FCC should look to the Patent and Trademark Office model for guidance). For a discussion of how telecommunications regulation can evolve to work in partnership with antitrust, see Philip J. Weiser, *The Imperative of Harmonization Between Antitrust and Regulation*, 698 PLI/PAT 73 (2002).

64. Sound competition policy includes, among other things, an appreciation for how regulation will affect parties’ incentives to invest in new facilities. See Larry F. Darby & Joseph Fuhr, *Investment Incentives and Local Competition at the FCC*, 9 FALL MEDIA L. & POLICY 1 (2000); Digital Broadband Migration Part II, Press Con-

of this mission, it is important to evaluate the complementary role played by antitrust oversight, to which this essay now turns.

III. ANTITRUST OVERSIGHT IN THE INFORMATION AGE

Over the last several years, antitrust law has begun to confront two of the most formidable obstacles it faces as a regulatory tool for the information age. The first challenge is the ability of antitrust enforcers and courts to react quickly to anticompetitive market developments and institute an effective remedial response. Like the *AT&T* case twenty years before,⁶⁵ the *Microsoft* litigation tested the ability of antitrust courts to respond to predatory conduct by a platform monopolist.⁶⁶ It is too soon to determine whether this antitrust action will serve its intended mission, but, as Lawrence Lessig suggested in recent testimony, even the flawed decree accepted by the federal government includes some important restrictions on Microsoft's conduct,⁶⁷ although the effectiveness of its enforcement regime is suspect.⁶⁸ In a second, but less high profile, challenge to antitrust, it remains to be seen whether intellectual property law will displace antitrust oversight.⁶⁹ Taken together, the development of these issues—the antitrust consequences of abusing control of a monopoly information platform and antitrust's relationship with in-

ference by Michael Powell (Oct. 23, 2001), *available at* <http://www.fcc.gov/Speeches/Powell/2001/spmcp109.html> (last visited Aug. 24, 2002).

65. *See* *United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom.*, *Maryland v. United States*, 460 U.S. 1001 (1983).

66. *See* *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

67. In terms of its flaws, the proposed settlement, for example, does not address the Court of Appeals' conclusion that Microsoft's actions related to Java as well as its commingling of code to disadvantage competitors constituted part of its illegal course of conduct. *See id.* at 76 (discussing deception of Java developers as a means to undermine the Java standard); *id.* at 66 (concluding that Microsoft's commingling of browsing and non-browsing code had an anticompetitive effect by deterring the installation of rival browsers). For a discussion of the potential impact of the decree's restrictions, see Dan Carney, *Microsoft Could Still Lose a Lot of Yardage*, *BUSINESS WEEK*, Dec. 24, 2001, at 35.

68. *See The Microsoft Settlement: A Look To The Future, Hearing before the S. Comm. on the Judiciary*, 107th Cong. (Dec. 12, 2001) (statement of Lawrence Lessig, Professor of Law, Stanford Law School), *at* http://judiciary.senate.gov/testimony.cfm?id=135&wit_id=104 (last visited Aug. 1, 2002).

69. In a similar, but less well developed challenge to antitrust, the Seventh Circuit suggested the possibility that the Telecommunications Act of 1996 bars any antitrust challenges related to the market opening obligations set out by the Act. *See* *Goldwasser v. Ameritech Corp.*, 222 F.3d 390 (7th Cir. 2000); *see also* Philip J. Weiser, *Goldwasser, The Telecom Act, and Reflections on Antitrust Remedies* (forthcoming 2003) (challenging position); *Brief of United States as Amicus Curiae, Intermedia Communications, Inc. v. Bell South Telecomms., Inc.*, (11th Cir.) (No. 01-10224-JJ) (filed Mar. 28, 2001), *available at* <http://www.usdoj.gov/atr/cases/f7700/7777.htm>.

lectual property—will shape how antitrust regulates other information platforms like instant messaging.

Although courts once suggested that antitrust and intellectual property worked in tension with one another,⁷⁰ both regimes now recognize the importance—and, to a lesser degree, the limits—of protecting property to encourage investment and innovation.⁷¹ In terms of working together to foster compatibility between rival platforms, intellectual property rules can facilitate the development of a shared standard by allowing reverse engineering—i.e., using a finished product and working backwards to determine how it was actually made.⁷² But there will be a number of cases where this “self-help” option is not sufficient. At present, intellectual property protection continues to protect a dominant standard—for example, patent protection for the interfaces for Microsoft’s Windows operating system—because the contours of the reverse engineering doctrine have not been fully developed.⁷³ Moreover, even where reverse engineering is legally permissible, it may well not be practically effective—either because the interfaces will keep changing or the relevant code is just too cumbersome to replicate in an efficient manner, as is the

70. See, e.g., *United States v. Line Material Co.*, 333 U.S. 287, 308 (1948) (patent pool invalidated under antitrust laws).

71. See *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990) (“The aims and objectives of patent and antitrust laws . . . are actually complementary, as both are aimed at encouraging innovation, industry, and competition.”); DOJ & FTC, *ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY*, Sec. 1 (1995), reprinted in 4 Trade Reg. Rep. (CCH) 20,734 at P 13,132 Sec. 1 (April 1, 1995) (“The intellectual property laws and the antitrust laws share the common purpose of promoting innovation and enhancing consumer welfare.”); Sheila F. Anthony, *Antitrust and Intellectual Property Law: From Adversaries to Partners*, 28 AIPLA Q. J. 1, 3 (2000) (innovation “depend[s] vitally on a legal framework that ensures a competitive market while protecting the rights of inventors and allowing innovators to profit from their ideas and inventions.”); Timothy J. Muris, Chairman, FTC, *Competition and Intellectual Property Policy: The Way Ahead*, Remarks before A.B.A. Antitrust Section Fall Forum (Nov. 15, 2001), at <http://www.ftc.gov/speeches/muris/intellectual.htm> (explaining that “[t]he tensions between [antitrust and intellectual property doctrine] tend to obscure the fact that, properly understood, IP law and antitrust law both seek to promote innovation and enhance consumer welfare”). For recent commentary, see James B. Kobak, Jr., *Running the Gauntlet: Antitrust and Intellectual Property Pitfalls on the Two Sides of the Atlantic*, 64 ANTITRUST L.J. 341, 342-50 (1996); Maureen O’Rourke, *Striking a Delicate Balance: Intellectual Property, Antitrust, Contract, and Standardization in the Computer Industry*, 12 HARV. J.L. & TECH. 1, 3 (1998); Willard K. Tom & Joshua A. Newberg, *Antitrust and Intellectual Property: From Separate Spheres to Unified Field*, 66 ANTITRUST L.J. 167 (1997).

72. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 476 (1974) (defining term).

73. See Julie E. Cohen & Mark A. Lemley, *Patent Scope and Innovation in the Software Industry*, 89 CAL. L. REV. 1, 16-29 (2001) (describing legal treatment of reverse engineering).

case with Microsoft's Windows operating system.⁷⁴ For such cases, a permissive intellectual property regime might not be sufficient to facilitate a competitive market; consequently, it is important that antitrust oversight remains a check on a firm's control of a dominant standard.

Despite the joint commitment to facilitate innovation and economic welfare, courts, commentators and enforcers have yet to harmonize satisfactorily antitrust and the intellectual property regime.⁷⁵ On the joint mission of antitrust and intellectual property, it is crucial to appreciate that both respect the importance of property as a means of enabling developers to appropriate rewards from risky investments. With respect to the essential facilities principle, for example, antitrust courts and commentators view this doctrine as exceptional in the same manner that intellectual property recognizes its role in protecting investment incentives and thus hesitates to impose compulsory licenses.⁷⁶ Put simply, even where an after-the-fact (ex post) regulation appears to promote competition, antitrust law teaches that imposing sharing requirements on a company's invention undermines before-the-fact (ex ante) incentives to invest. Despite this appreciation within antitrust, there is a growing movement to bar or limit Section 2 claims related to denials of access to intellectual property.⁷⁷

As some courts and commentators would have it, intellectual property development deserves different treatment under antitrust than real property. In particular, some argue that where

74. See *United States v. Microsoft Corp.*, 65 F. Supp. 2d 1, 15 (D.D.C. 1999); see also Jonathan Band, *Paragraph 52: A Window into Judge Jackson's Findings of Fact*, 17 *COMPUTER LAWYER* 3 (2000).

75. As Maureen O'Rourke put it, "[t]he goal seems simple enough—to encourage innovation—but because the two sets of laws attempt to do so in such different manners, the potential for conflict is present." O'Rourke, *supra* note 71, at 37.

76. See AREEDA & HOVENKAMP, *ANTITRUST LAW*, ¶ 707, at 180 (rev. ed. 1996) ("diminishing the inventor's reward reduces incentives for inventive activity and seems inconsistent with the premise of the patent system."); Phillip Areeda, *Essential Facilities: An Epithet in Need of Limiting Principles*, 58 *ANTITRUST L.J.* 841, 852 (1990) ("[c]ompulsory access, if it exists at all, is and should be very exceptional."); see also, e.g., *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) (explaining that the limited copyright monopoly "is intended to motivate the creative activity of authors and inventors by the provision of a special reward"); *Alaska Airlines v. United Airlines*, 948 F.2d 536, 545–46 (9th Cir. 1991) (holding that control over passenger reservation system is not sufficiently susceptible to abuse to constitute an essential facility).

77. See *Image Technical Servs. v. Eastman Kodak Co.*, 125 F.3d 1195, 1218 (9th Cir. 1997) (viewing the possession of an intellectual property right as a presumptively valid legitimate business reason), *cert. denied*, 523 U.S. 1094 (1998); *Data Gen. Corp. v. Grumman Sys. Support Corp.*, 36 F.3d 1147, 1187 (1st Cir. 1994) (same).

an allegedly illegal action is an anticompetitive refusal to deal in Kodak's intellectual property⁷⁸—as opposed to Aspen Ski's developed ski slope⁷⁹—antitrust law should refrain from assigning liability to Kodak even if the same legal standard is met in each case.⁸⁰ Presumably, advocates of this position believe that a stronger protection of property is necessary to facilitate investment in intellectual property—as opposed to real property—development, as a duty to deal requirement imposed in either case could effectuate the same type of impingement on the ability to appropriate one's investment.⁸¹ But as a number of commentators have explained, there is no real basis for distinguishing between the two.⁸² Thus, understood properly, both antitrust and intellectual property (like real property law) protect property rights to stimulate investment, but neither condone exclusionary denials of access just because the interface at issue might lay claim to intellectual property protection.⁸³

78. See *Kodak*, 125 F.3d at 1218.

79. See *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985).

80. For one such argument, see Carl Shapiro, *Navigating the Patent Thicket: Cross-Licenses, Patent Pools, and Standard-Setting*, in *INNOVATION POLICY AND THE ECONOMY* 133 (Jaffe et al., eds.) (2001), available at haas.berkeley.edu/~shapiro/thicket.pdf (treating intellectual property like real property is “stunn[ing]” and calling for an immunity for intellectual property holders against a duty to deal theory). Presumably, Shapiro would avoid allowing this immunity to prevent an owner of an information platform interface (say, Microsoft) from using its intellectual property right to avoid liability by maintaining that such interfaces should not be patentable or subject to copyright protection. But current intellectual property rules allow the patenting of interfaces. See Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 529 (1998) (noting that Microsoft has patented its key interfaces).

81. DOJ & FTC, *ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY*, § 2.1 (1995), available at www.usdoj.gov/atr/public/guidelines/ipguide.htm (explaining that the same antitrust principles apply to intellectual property as to real property). Admittedly, investments in intellectual property, unlike real property, are more easily appropriated by free riders, but antitrust thus must distinguish between restraints designed to protect investment versus those designed to exclude competitors. One intriguing position for resolving this difficulty is to exempt “pure” intellectual property—i.e., protected technologies—from duty to deal requirements, but to allow any products produced or deployed to be subject to such requirements. See Mark R. Patterson, *When is Property Intellectual? The Leveraging Problem*, 73 S. CAL. L. REV. 1133, 1134 (2000) (noting that courts have overlooked this potential solution to the issue).

82. See Steven Semeraro, *Regulating Information Platforms: The Convergence to Antitrust*, 1 J. TELECOMMS. & HIGH TECH. L. 143, 152-67 (2002); A. Douglas Melamed & Ali M. Stoepelwerth, *The CSU Case: Facts, Formalism, and the Intersection of Antitrust and Intellectual Property Law*, 10 GEO. MASON L. REV. (forthcoming 2002); Glen Robinson, *On Refusing to Deal to Rivals*, 87 CORNELL L. REV. 1177, 1210-11 & n.148 (2002).

83. The Department of Justice recently set forth an antitrust principle to implement this point. See Brief for the United States as Amicus Curiae at 11-12, *CSU, L.L.C. v. Xerox*, 121 S. Ct. 1077 (2001) (No. 00-62), available at <http://www.usdoj.gov>.

In defining the relationship between antitrust and intellectual property, it is important for courts to remain focused on the two regimes' shared purpose in facilitating investment, innovation, and competition. In a particularly egregious failure to do that, the Federal Circuit recently held that if a denied input (such as a part used in servicing a product) is protected under the patent laws, there is little or no room for antitrust liability related to the use or terms of sale of the input.⁸⁴ Under such a theory, a patented interface for, say, interconnection between local and long distance networks would possibly have barred antitrust liability for AT&T's discriminatory interconnection arrangements,⁸⁵ or any number of otherwise recognized antitrust claims.⁸⁶ Indeed, this ruling led some commentators to suggest that Microsoft could prevail in its case on the ground that its patented interfaces and/or copyrighted operating system were immunized from any duty to deal requirements under the antitrust laws.⁸⁷ Happily, in the *Microsoft* case, the D.C. Circuit rejected

gov/osg/briefs/2000/2pet/6invt/2000-0062.pet.ami.inv.pdf (quoting *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 605 (1985) and citing ROBERT H. BORK, *THE ANTITRUST PARADOX* 144 (2d ed. 1993) on predatory conduct) (arguing that antitrust liability in relation to licensing IP should arise when the IP holder "sacrific[es] profit available from exercising monopoly power in order to exclude competition and thereby to create additional market power").

84. See *In re Indep. Serv. Org. Antitrust Litigation*, 203 F.3d 1322 (Fed. Cir. 2000). In particular, the ISO court suggested that antitrust liability could lie as to the exercise of IP rights only where (1) the asserted patent was obtained by fraud; (2) the infringement suit was a mere sham; or (3) the IP right was used in an illegal tie. For an example of how this principle has been applied to bar antitrust litigation, see *Townshend v. Rockwell Int'l Corp.*, No. C99-0400, 2000 U.S. Dist LEXIS 5070 (N.D. Cal., Mar. 28, 2000) ("Because a patent owner has the legal right to refuse to license his or her patent on any terms, [and therefore] the existence of a predicate condition to a license agreement cannot state the antitrust violation"). It is plausible that the case could be defined narrowly as merely prescribing the scope of antitrust liability for actions taken in relation to the prosecution and enforcement of a patent, but it is hard to justify such a narrow reading.

85. See *MCI v. AT&T*, 708 F.2d 1081 (7th Cir. 1983), *cert. denied*, 464 U.S. 891 (1983) (holding AT&T liable for such discriminatory interconnection under an essential facilities theory); see also Melamed & Stoepelwerth, *supra* note 82 (offering this example).

86. See Robert Pitofsky, *Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property*, 68 ANTITRUST L.J. 913, 919-23 (2001) (criticizing decision).

87. See, e.g., Linda R. Cohen & Roger G. Noll, *Intellectual Property, Antitrust and the New Economy*, 62 U. PITT. L. REV. 453, 471 (2001). While this fear is slightly exaggerated (as not all of Microsoft's challenged actions related to its intellectual property rights as such), it merits attention. If, as some commentators argue, an IP holder could not be required under antitrust to "sell or license the technology covered by [an IP right]," then a refusal by Microsoft to release patented APIs to Netscape—say, where Microsoft released such APIs to non-rivals—could not give rise to antitrust liability. David McGowan, *Networks and Intention in Antitrust and Intellectual Property*, 24 J. CORP. L. 485, 491 (1999).

this type of argument, responding with the analogy that intellectual property no more confers such a right than the argument “that use of one’s personal property, such as a baseball bat” is immunized from tort liability.⁸⁸ Presumably, this ruling not only governs liability questions, but also remedial ones, such as the requirement in the proposed consent decree that Microsoft disclose its application programming interfaces for middleware products in the same fashion it does for its own.⁸⁹

The three most obvious defenses of the immunization position strike me as fatally flawed. First, advocates of this view may well oppose the imposition of any duty to deal in a product market defined strictly as an “aftermarket” in one company’s products and use the intellectual property defense to eviscerate this claim.⁹⁰ To be sure, it is questionable whether “aftermarket” access claims properly sound in antitrust—as opposed to contract⁹¹—but the better approach is to reject or narrow this claim,

88. *United States v. Microsoft Corp.*, 253 F.3d 34, 63 (D.C. Cir. 2001); *see id.* (terming Microsoft’s argument that it has an “absolute and unfettered right to use its intellectual property as it wishes” as “border[ing] on the frivolous”); *see also id.* (balancing interest in maintaining control of desktop interface with marginal anticompetitive impact).

89. Sections III. D & E of the proposed decree do just that. *See United States v. Microsoft*, Revised Proposed Final Judgment, available at <http://www.usdoj.gov/atr/cases/f9400/9495.pdf> (last visited Aug. 2, 2002); *see also The Microsoft Settlement: A Look To The Future, Hearing before the S. Comm. on the Judiciary*, 107th Cong. (Dec. 12, 2001) (statement of Charles James, Assistant Attorney Gen. for the Antitrust Div., U.S. Dep’t of Justice), available at http://judiciary.senate.gov/print_testimony.cfm?id=135&wit_id=98 (terming this aspect of the remedy “the most effective avenue for restoring the competitive potential of middleware”).

90. *See Eastman Kodak Corp. v. Image Technical Services*, 504 U.S. 451 (1992) (recognizing this claim); *see also* Thomas C. Arthur, *Formalistic Line Drawing: Exclusion of Unauthorized Services from Single Brand Aftermarkets Under Kodak and Sylvania*, 24 J. CORP. L. 603 (1999) (criticizing claim). Notably, the courts have narrowed this claim—thereby sidestepping some potential objections to it—by making clear that only a party subject to a “bait and switch” tactic can challenge a primary market platform’s treatment of competition in an aftermarket. *See Digital Equip. Corp. v. Uniq Digital Techs., Inc.*, 73 F.3d 756, 763 (7th Cir. 1996) (Easterbrook, J.) (emphasizing that if Kodak had not facilitated aftermarket competition and/or had informed its customers that it might cease to do so, it would not have been liable); *PSI Repair Servs., Inc. v. Honeywell, Inc.*, 104 F.3d 811, 820 (6th Cir. 1997) (highlighting the unanticipated change in policy as basis of antitrust liability), *cert. denied*, 117 S. Ct. 2434 (1997); *Lee v. Life Ins. Co. of N. Am.*, 23 F.3d 14, 20 (1st Cir. 1994) (same). Indeed, this might explain how some commentators like Carl Shapiro, who criticize the imposition of a duty to deal on Kodak’s intellectual property, also advocate the imposition of such duties on Microsoft’s protected software code. To this end, Shapiro criticizes the aftermarket doctrine and the imposition of antitrust duties on IP with equal vigor. *See* CARL SHAPIRO & HAL VARIAN, *INFORMATION RULES* 146-47 (1999).

91. Steven C. Salop, *The First Principles Approach to Antitrust, Kodak, and Antitrust at the Millennium*, 68 ANTITRUST L.J. 187, 188 (2000) (making this point); *see also* Carl Shapiro, *Aftermarkets and Consumer Welfare: Making Sense of Kodak*, 63

not to invent a defense for it that could have negative consequences in other contexts. Second, this defense may stem from a fear over administerability concerns for courts that must mandate the licensing of intellectual property.⁹² Admittedly, courts must be careful in this area not to engage in agency-type rate of return regulation, but the long history of compulsory licensing in antitrust decrees suggests that this concern is not fatal.⁹³ Finally, given the joint purposes of intellectual property and antitrust, as noted above, it does not make sense to construe intellectual property laws, such as the one creating the Federal Circuit Court of Appeals to hear all patent appeals, as limiting the scope of antitrust liability in the IP area.⁹⁴

In short, there is no more warrant for insisting that intellectual property should trump antitrust duties to deal than there is for demanding complete protection over user and product interfaces, lifting all duty to deal requirements imposed by antitrust for real property, or barring any open access regime under telecommunications regulation. All of these forms of regulation must balance the need to protect investment incentives while allowing for the access necessary to facilitate innovation.⁹⁵ Recognizing the need to harmonize the relevant legal regimes, the

ANTITRUST L.J. 483, 491-92 (1995) (“Ultimately, interbrand competition, contractual protections, and manufacturing commitments, and the manufacturer’s reputation are likely to be far stronger forces protecting buyers than a legal duty to deal with its aftermarket rivals.”).

92. See AREEDA & HOVENKAMP, *supra* note 76, at 295; PHILLIP AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* (Supplement 2001) at para. 704.1. It should be noted that the institution of this immunity rule actually creates an administrative difficulty of its own: courts are forced to evaluate alleged anticompetitive conduct that naturally implicated the withholding of patented parts without examining actions regarding the patented parts themselves. See *In re Indep. Serv. Org. Antitrust Litigation*, 964 F. Supp. 1479, 1490 (D. Kan. 1997) (“The court’s ruling does not preclude a finding of antitrust liability against Xerox based on CSU’s other allegations of exclusionary conduct.”).

93. See, e.g., F.M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 456-57 (2d ed. 1980) (“All in all, the substantial amount of evidence now available suggests that compulsory patent licensing, judiciously confined to cases in which patent-based monopoly power has been abused . . . would have little or no adverse impact on the rate of technological progress.”).

94. For just such an argument, see Michelle M. Burtis & Bruce H. Kobayashi, *Why an Original can be Better than a Copy: Intellectual Property, the Antitrust Refusal to Deal, and ISO Antitrust Litigation*, 9 SUP. CT. ECON. REV. 143 (2001).

95. For an example of how commentators attempt to distinguish between these areas, compare Lemley & McGowan, *supra* note 80, at 525 (“In network industries, there is a strong economic argument in favor of permitting reverse engineering in the limited set of cases in which it promotes either vertical or horizontal compatibility with an industry standard.”) with McGowan, *supra* note 87, at 525 (opposing mandatory dealing arrangements under antitrust as inconsistent with intellectual property statutes and “the rate of return structure they create”).

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Federal Trade Commission and Antitrust Division of the Justice Department have emphasized that “[i]t is increasingly important that competition and intellectual property law work in tandem to support and encourage ongoing innovation” and have scheduled a set of hearings to develop a harmonious approach to the issue.⁹⁶ Ideally, this effort will help put to rest the argument that the presence of an intellectual property right can displace the role of antitrust oversight. As in other areas, antitrust needs to take account of legitimate pro-competitive restraints—such as those designed to safeguard against the pirating of intellectual property—but a categorical rule against antitrust oversight could give rise to considerable mischief, as firms would seek to benefit from it by, among other things, trying to cloak anticompetitive conduct within the protection of intellectual property.

IV. INTELLECTUAL PROPERTY, PRIVATE ORDERING, AND THE PROMISE OF THE OPEN SOURCE MOVEMENT

The Internet created a uniquely suitable platform for innovation. In an important sense, the basic standards that constitute the Internet, such as the Internet’s transport protocol (e.g., TCP/IP) are classic public goods that would have not been provided by the market itself.⁹⁷ As others have explained, the government’s support for the Internet, whose standards were all open and managed by standard setting committees like the IETF, constituted a masterful stroke of competition policy.⁹⁸ Many information platforms built for the Internet, like most Internet browsers and instant messaging systems, were produced by private companies and protected by intellectual property. Nonetheless, some “open source” advocates suggest that proprietary development and ownership of software will be a dinosaur that will not survive the Internet age, rendering worries about information platform regulation irrelevant. But as outlined below, there are good reasons to believe that proprietary develop-

96. Notice of Public Hearings, Competition and Intellectual Property Law in the Knowledge-Based Economy, 66 Fed. Reg. 58,146 (2001) (Notice of FTC/DOJ hearings on antitrust and IP policy).

97. See Michael Katz & Carl Shapiro, *Systems Competition and Network Effects*, J. ECON. PERSP., Spring 1994, at 93, 102-03 (noting that “a communication network shares many features with a public good; small users may free-ride on the large users who may bear the costs necessary to create and market the network”); see also RICHARD CORNES & TODD SANDLER, *THE THEORY OF EXTERNALITIES, PUBLIC GOODS, AND CLUB GOODS* (2d ed. 1996) (describing the public good concept).

98. See Edward L. Rubin, *Computer Languages as Networks and Power Structures: Governing the Development of XML*, 53 SMU L. REV. 1447, 1449-52 (2000) (describing history of government support for the Internet).

ment will continue to thrive and must be subject to government regulation.

During the 1980s, alongside the government's efforts to support the Internet, Richard Stallman initiated a private sector collaborative development project called the GNU project—which stands for “GNU's Not Unix”—that would create an alternative operating system to UNIX.⁹⁹ To do so, he created the General Public License (GPL)¹⁰⁰ to govern access to the GNU project and to facilitate the non-proprietary development of software products. In a sense, open source development (or “free software,” as Stallman calls it¹⁰¹) relies on a “virtual firm,” uniting a disparate array of computer programmers in the development and maintenance of a product through online communication and access to the source code for the software product.

For the true believers, the advent of open source development threatens to displace proprietary development and thus render irrelevant most debates about whether and how intellectual property law governs software. More modestly, some point to viability of open source as suggestive of the potential for managing a commons of information without the need for proprietary ownership. In terms of evidence to support either the stronger or weaker claims regarding open source, consider the success of the Linux-GNU operating system. This system continues to pick up market share at the expense of Microsoft's Windows NT, suggesting that the open source phenomenon, while not necessarily superior to proprietary development, is no fluke.¹⁰² In terms of the legal issues regarding the GPL license that governs the use of the Linux-GNU system, it is somewhat ironic that this effort to displace traditional proprietary development backed by intellectual property protection itself relies on intellectual property law—specifically, the rules governing the licensing of

99. For a history of this project, see THE GNU PROJECT, at www.gnu.org.

100. For a description and analysis of the license, see Ira V. Heffan, Note, *Copyleft: Licensing Collaborative Works in the Digital Age*, 49 STAN. L. REV. 1487, 1508 (1997) (setting out conditions of GPL).

101. Stallman insists on the term “free software,” as opposed to “open source,” in order to underscore the ethical value of non-proprietary development. See Richard M. Stallman, *Why “Free Software” is Better than “Open Source,”* at <http://www.gnu.org/philosophy/free-software-for-freedom.html> (last modified March 9, 2002).

102. See, e.g., Craig Smith, *Fearing Control by Microsoft, China Backs the Linux System*, N.Y. TIMES, July 8, 2000, at A1 (noting Linux's popularity); Red Hat Inc. Amendment No. 5 to Form S-1, 6 (Aug. 11, 1999), available at <http://www.sec.gov/Archives/edgar/data/1087423/0001047469-99-030827.txt> [hereinafter, Red Hat S-1] (Red Hat's acknowledgement, in a securities disclosure, that “[w]e have not demonstrated the success of our open source business model”).

software.¹⁰³ Putting aside the legal issues, which remain unsettled, it is quite clear that the vision embodied in the license offers an important alternative to proprietary development, both in the marketplace and as a norm for software development.¹⁰⁴

The essential quality of open source development is that, unlike proprietary code, all users (and would-be improvers) have access to the source code itself. Put simply, source code constitutes the human readable version of a program whereas object code (i.e., machine-readable code) contains the 1s and 0s that are actually used by the computer to “execute” the program.¹⁰⁵ To translate source code into object code, programmers use compiling software. By distributing the program in a format that users (and improvers) can examine, open source code allows for others to correct any errors and identify possible improvements. In so doing, it provides a model of software development that parallels an academic, peer review-like model and, not surprisingly, enlists considerable support from academics and students.¹⁰⁶

The most ambitious form of open source, as enforced by the GPL, requires all developers using such software to also contribute any extensions—or, in copyright terms, “derivative works”—of the standard back to the original licensor.¹⁰⁷ In this sense, an open source license of the GPL variety (i.e., one that is “viral”) seeks to ensure, through copyright law itself, a system of private ordering that provides for continuous open code development. The significant advantage that open source software enjoys over proprietary software is that, because the underlying source code is made public, developers and users working with open source

103. For a discussion of this issue, see Patrick K. Bobko, *Linux and General Public Licenses: Can Copyright Keep “Open Source” Software Free?* 28 AIPLA Q.J. 81 (2000) (arguing that the GPL is enforceable).

104. See David McGowan, *Legal Implications of Open Source Software*, 2001 U. ILL. L. REV. 241, 287-302 (examining enforceability and concluding that, regardless of its legal merit, the licenses should be appreciated for embodying a powerful social norm).

105. For a discussion of the relevant computer technology, see A. Johnson Laird, *Software Reverse Engineering in the Real World*, 19 U. DAYTON L. REV. 843 (1994).

106. See Marcus Maher, *Open Source Software: The Success of an Alternative Intellectual Property Incentive Paradigm*, 10 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 619, 641-42 (2000). In this respect, the contemporary open source model follows the development of Unix during the 1970s, which relied greatly on universities for important feedback. See STEVE LOHR, *GO TO: THE STORY OF THE MATH MAJORS, BRIDGE PLAYERS, ENGINEERS, CHESS WIZARDS, MAVERICK SCIENTISTS AND ICONOCLASTS, THE PROGRAMMERS WHO CREATED THE SOFTWARE REVOLUTION* 78 (2001).

107. For a copy of the GPL, see Free Software Foundation, GNU Public License (version 1.7, June 1991), available at <http://www.fsf.org/licenses/gpl.html>. For the provision addressing “derivative works,” see Section 2(b) (providing that licensees must “cause any work that [they] distribute or publish . . . to be licensed as a whole at no charge to all third parties under the terms of this License.”).

software can evaluate potential changes for themselves and can fix any bugs in the code itself, thereby leading to a rich positive feedback effect.¹⁰⁸ As Linus Torvalds, the founder of Linux put it, “[g]iven enough eyeballs, all bugs are shallow.”¹⁰⁹

The advent of open source development is a significant development and supports the viability of some significant technologies, but there are important reasons to question whether this model will emerge as the dominant one for software development. As an initial matter, the success of open source development depends on some formal or informal consensus, often coordinated by a champion (and potential funding source), and that consensus may not always emerge.¹¹⁰ Where there is such a champion, as in the cases of the development of the Internet itself,¹¹¹ the World Wide Web,¹¹² and the GNU-Linux operating system,¹¹³ open standards can emerge and sometimes thrive

108. In its S-1 securities filing, Red Hat, a leading distributor of Linux operating system software explained how this model works:

under the open source software model, software is created through the collaborative efforts of large communities of independent developers. Developers work alone or in groups to write code, make the code available over the internet, solicit feedback on it from other developers, then modify it and share it with others for general use. This continuous process results in the rapid evolution and improvements of open source software.

Red Hat S-1, *supra* note 102, at 2. Famously, Eric Raymond contrasts the free-wheeling nature of open source development’s repeated beta-testing and multiple versions (which he likens to a “bazaar”) with the tightly controlled method of proprietary development (which he compares to a “cathedral”). See ERIC S. RAYMOND, *THE CATHEDRAL & THE BAZAAR, MUSINGS ON LINUX AND OPEN SOURCE BY AN ACCIDENTAL REVOLUTIONARY* 30 (1999). Raymond views this bazaar model as akin to the scientific method, whereby the ultimate product comes with a peer review stamp of approval. See *id.* at 38.

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109. RAYMOND, *supra* note 108, at 41 (terming this as “Linus’s law”); see also *id.* at 62 (noting that Linux uses “the entire world as its talent pool”); *id.* at 66 (“No closed source developer can match the pool of talent the Linux community can bring to bear on a problem.”). Carol Rose, noting a similar phenomenon in property theory, terms it “the comedy of the commons.” Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 769 (1986).

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110. For an argument that open source development can prosper under a purely decentralized regime, see Christopher Browne, *Linux and Decentralized Development*, available at <http://vip.hex.net/~cbbrowne/lfsf.html> (last visited Sept. 1, 2002).

111. For a brief description of the role played by the National Science Foundation and the Advanced Research Projects Administration (ARPA), see Rubin, *supra* note 98, at 1449-52. See also Marcus Maher, *An Analysis of Internet Standardization*, 3 VA. J.L. & TECH. 5, 6-7 (1998).

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112. Tim Berners-Lee, the inventor of the basic software for the Web, established the World Wide Web Consortium (W3C) to ensure that the basic Web standards could be maintained as open. See Rubin, *supra* note 98, at 1452-54 (discussing W3C and its workings, including the critical role of Berners-Lee, who is its Director).

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113. In that case, the critical leadership of Linus Torvalds, the inventor of the Linux kernel, played—and continued to play—a facilitating role in enabling the sys-

under the oversight of a respected champion. Without such a champion, coordinating body, and/or a dedicated source of funding,¹¹⁴ it may well be the case that open standards will fragment as different providers of the product “fork” from the original version.¹¹⁵ In particular, the splintering of the Unix operating system—which stems from the right of developers to “fork” from prior versions—is perhaps the classic example of how an open standard can ultimately fragment into a number of incompatible operating systems (e.g., HP-UX and Sun’s Solaris).¹¹⁶ By contrast, where there are effective persuasive pressures and leadership (as in the case of both Linux and Apache (another open source product used for web servers), for example), open source products have maintained a coherent common standard and have not splintered in the way that UNIX did.¹¹⁷

tem to develop. See Raymond, *supra* note 108, at 89-90, 122-26; Red Hat S-1, *supra* note 102, at 6-7 (Red Hat’s acknowledgement of the challenges if Torvalds were to discontinue his role as coordinator of the standard); Interview by Hiroo Yamagata with Linus Torvalds, The Pragmatist of Free Software: Linus Torvalds Interview, at <http://www.netshooter.com/linux/linus-interview.html> (last visited Aug. 8, 2002) (Torvald’s acknowledgement of the importance that “there is one person who everybody agrees is in charge (me) allows me to do [sic] more radical decisions than most other projects can allow.”); see also Russ Mitchell, *Open War*, WIRED, October 2001, at 135, 136, 139 (listing, in addition to Torvalds, the keepers of the kernel). More recently, in what may become a very significant development, IBM has decided to support Linux rather than develop an alternative to the existing proprietary versions of UNIX. See *id.* at 138-39; see also LOHR, *supra* note 106, at 215-16. Finally, the development of a standards-setting body focused primarily on preserving the compatibility of Linux, the Free Standards Group, should aid its development. See Stephen Shankland, *Standards Help Linux Avoid Unix Fate*, CNET NEWS.COM, at <http://news.com.com/2100-1001-950180.html> (Aug. 16, 2002).

114. See McGowan, *supra* note 104, at 284 (noting how government and university support for the Internet and open source projects has been key; thus, “[t]he viability of large, unsubsidized open-source projects is an open question”).

115. The fragmentation issue is one of a number of possible “tragedy of the commons” problems that might befall an open standard not supported through some institutionalized effort. For the classic explanation of the “tragedy of the commons,” see Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

116. See Michael J. Schallop, *The IPR Paradox: Leveraging Intellectual Property Rights to Encourage Interoperability in the Network Computing Age*, 28 AIPLA Q.J. 195, 263 n.233 (2000); Mitchell, *supra* note 113, at 138 (“[I]n the past 30 years, Unix has split into different flavors, most of them closed and proprietary.”). In particular, the so-called “Berkeley UNIX” originated as a single standard, but, after several “forks” by different sponsors, the standard splintered into different versions. See MARTIN C. LIBICKI, INFORMATION TECHNOLOGY STANDARDS: QUEST FOR THE COMMON BYTE 47-56 (1995) (detailing fragmentation of UNIX).

117. LOHR, *supra* note 106, at 208; see also Eric S. Raymond, *Homesteading the Noosphere: Causes of Conflict*, at <http://www.tuxedo.org/~esr/writings/cathedral-bazaar/homesteading/> (last modified Nov. 21, 1998) (highlighting the importance of leadership to prevent “forking” from a common standard). In a move to prevent a fragmentation of the Linux standard, Linus Torvalds endorsed the Linux Standards Base (LSB) project as a means of maintaining a common platform for all Linux users. See Nicholas Petreley, *Linux Road Map Needed*, COMPUTERWORLD, Sept. 24,

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To maintain a coherent standard, some companies have attempted to develop a “quasi-open source” license. Most famously, Sun’s Java technology allows users and developers access to the source code for a standard that it maintains will provide for a platform-independent, “write once, run anywhere” environment.¹¹⁸ Nonetheless, Sun does impose certain restrictions as part of its “community source license.”¹¹⁹ In particular, Sun has maintained its trademark over Java, which it uses to ensure that its licensees maintain the standard, as evidenced by its action against Microsoft to prevent Microsoft from fragmenting the Java standard.¹²⁰ Ironically, its decision to retain control over the standard, even if merely to ensure compatibility and to prevent the fragmentation that plagued Unix, highlights Sun’s un-

2001, available at http://www.computerworld.com/storyba/0,4125,NAV47_STO64104,00.html; see also Free Standards Group, at www.freestandards.org (last visited Aug. 8, 2002).

118. For an overview of the Java platform, see Java[tm] Technology Overview, at <http://www.sun.com/java/overview.html> (last visited Aug. 8, 2002) (explaining significance of “write once, run anywhere” slogan). See also Michael P. Doerr, Note, *Java: An Innovation in Software Development and a Dilemma in Copyright Law*, 7 J. INTELL. PROP. L. 127, 130-32 (1999) (explaining how the Java Virtual Machine, which is tailored for each computing environment, can facilitate a platform-independent standard and its impact on the software industry).

119. For a discussion of this license, comparing it to open source and other proprietary licenses, see Richard P. Gabriel & William N. Joy, Sun Community Source License Principles, at <http://www.sun.com/981208/scsl/principles.html> (last visited Aug. 8, 2002). Over time, Sun eased some of the relevant restrictions, including a six-digit fee for a commercial source license, and focused primarily on using the licensing restrictions to ensure compatibility. See Stig Hackvan, *Not Quite Open Source, But Closer*, LINUXWORLD.COM, available at www.linuxworld.com/linuxworld/lw-1998-12/lw-12-java.html (last visited Aug. 24, 2002). Nonetheless, by keeping some such restrictions, the Java standard fits within a proprietary code model much more so than an open source one. See Mark A. Lemley & David McGowan, *Could Java Change Everything? The Competitive Propriety of a Proprietary Standard*, 43 ANTITRUST BULL. 715, 753-54 (1998). As such the ISO, an international standards setting organization, refused to certify Java as a de jure standard. See *id.* at 755-56.

120. The Ninth Circuit reversed the district court decision’s initial award of a preliminary injunction to Sun against Microsoft. See *Sun Microsystems, Inc. v. Microsoft Corp.*, 21 F. Supp. 2d 1109, 1126 (N.D. Cal. 1998) (granting preliminary relief to Sun), *rev’d and remanded*, 188 F.3d 1115 (1999) (questioning whether compatibility requirements were license restrictions or separate covenants). On remand, the district court concluded that the compatibility requirements did not inhere in the copyright license themselves, see *Sun Microsystems, Inc. v. Microsoft Corp.*, 81 F. Supp. 2d 1026, 1031-32 (N.D. Cal. 2000), but did grant preliminary relief to Sun on unfair competition grounds, see *Sun Microsystems, Inc. v. Microsoft Corp.*, 87 F. Supp. 2d 992, 998-1004 (N.D. Cal. 2000). See also Steven Shankland et al., *Sun, Microsoft Settle Java Suit*, CNET NEWS.COM, at <http://news.com.com/2100-1001-251401.html?legacy=cnet> (Jan. 23, 2001) (detailing settlement of case). The issue of whether Microsoft sought to “pollute” Java to protect its position in the operating systems market emerged as a critical question in the monopolization case brought by the United States against Microsoft. See *United States v. Microsoft*, 253 F.3d 34, 74-78 (D.C. Cir. 2001) (discussing issue).

easiness with making Java a truly open standard.¹²¹ Moreover, Sun's stewardship of Java also retains for itself the right to exert greater restrictions on its licenses should it choose to do so.¹²²

The second critical challenge for open source standards is that, without a strong champion, it can be extraordinarily difficult for the standard to evolve. With respect to the modern Internet community (i.e., one that lacks strong government leadership), the effort to deploy a next generation Internet protocol capable of enhanced functionality (IP version 6) continues to stall, as it is very difficult to coordinate the transition of an open standard.¹²³ In significant part, the difficulty in this area stems from the increasing number of companies now taking part in open standard setting efforts, resulting in a considerably slower process.¹²⁴ By contrast, in markets where more than one network standard battle it out in the marketplace, users can benefit from a greater degree of dynamism.¹²⁵

The final challenge for the open source movement is perhaps the most fundamental: the claim that proprietary ownership is necessary to provide developers with an incentive to invest time and money in creating new technologies.¹²⁶ Two examples of this

121. To be fair, Java's license does represent a quasi-open source one in that its restrictions regarding contributing back fixes to any bugs in Java and its requirement that any proprietary extensions have published Application Programming Interfaces (APIs) are consistent with the open source model. See Hackvan, *supra* note 119.

122. See Lemley & McGowan, *supra* note 119, at 751 (expressing concern on this score). As Lemley and McGowan explain, Sun's statements about keeping their standard open may give rise to an implied license—or equitable estoppel—defense should it seek to restrict access to the standard in a fashion to benefit their own proprietary interests. *Id.* at 771.

123. See Scott Tyler Shafer, *IPv6 Aims to Score the Always-on Goal*, RED HERRING, Aug. 15, 2001, at 70.

124. See Robert J. Aiken & John S. Cavallini, *When are Standards too Much of a Good Thing? Will they Provide Interoperability for the National Information Infrastructure*, in STANDARDS POLICY FOR INFORMATION INFRASTRUCTURE 253, 259 (Brian Kahin & Janet Abbate eds., 1995) (“[T]he growth of the Internet Engineering Task Force (IETF) has recently strained the capability of its consensus process to resolve major standards issues in a timely fashion”); Martin Libicki et al., *Scaffolding the New Web: Standards and Standards Policy for the Digital Economy* 22 (2000), available at www.rand.org/publications/MR/MR1215 (noting how the theoretical timetable from draft to standard of 10 months has become 8 years); CARL F. CARGILL, OPEN SYSTEMS STANDARDIZATION: A BUSINESS APPROACH 57 (1997) (highlighting the difficulty in setting such standards); *id.* at 77-78 (noting that defining technical standards can move from a technological activity to a political one).

125. See Mark A. Lemley, *Antitrust and the Internet Standardization Problem*, 28 CONN. L. REV. 1041, 1055 (1996) (“[C]ompetition to set the standard for the next generation of products may still serve a valuable purpose if it drives innovation in the market.”).

126. For a sense of the debate, compare Mathias Strasser, *A New Paradigm in Intellectual Property Law? The Case Against Open Sources*, 2001 STAN. TECH. L.

challenge bear notice. First, the use of open source models that embrace proprietary extensions—i.e., ones unlike the GPL—suggest concerns about the basic model called for by the GPL license, which does not allow for any proprietary extensions. In that regard, firms that once embraced open sources as a viable business model are now having second thoughts and some efforts by commercial firms to use such strategies have failed.¹²⁷ Second, reflecting the market realities of patenting in the software industry, most standard setting bodies, including the IETF, have adopted policies that allow patented technologies to be included in official standards, provided that they are licensed on reasonable and non-discriminatory terms.¹²⁸

In a sign of how the Internet's traditional skepticism towards proprietary development continues to evolve, the current debates at the World Wide Web Consortium (W3C) regarding the institution of a patent policy highlight how the old model of committing to royalty free licensing is under tremendous pressure.¹²⁹ The W3C, in evaluating an appropriate patent policy, initially proposed a policy that would permit, but not encourage, the use of patented technologies in official standards.¹³⁰ After an uproar in the Web community, however, the W3C put forward a revised proposal that requires all patents that are used in official stan-

REV. 4, 85 (“Stallman’s vision suffers from the fact that, as with any communist ideology, its appeal is likely not to be powerful enough to attract sufficient manpower to develop enough free software to make it a feasible alternative to proprietary code.”) with RAYMOND, *supra* note 108, at 64, 79-135 (suggesting the prevalence of a hacker culture that is motivated more by non-monetary rewards, such as the intrinsic pleasure and reputational benefits from crafting good code).

127. See Stephen Shankland, *Open-Source Approach Fades In Tough Times*, CNET NEWS.COM, at <http://news.cnet.com/news/0-1003-200-7926260093.html> (Nov. 20, 2001) (reporting on failures of firms dedicated to open source); Paul Festa, *Will Real Feast Where Apple Failed?*, CNET NEWS.COM, at <http://news.com.com/2100-1023-947094.html> (July 30, 2002) (reporting on Apple and Netscape’s failed open source initiatives); see also Stephen Shankland, *Unix Pioneer an Open-Source Killjoy*, CNET NEWS.COM, at <http://news.com.com/2100-1001-949812.html> (Aug. 14, 2002) (“The open source business model hasn’t worked very well.”) (quoting Bill Joy, Chief Scientist of Sun Microsystems and Unix pioneer).

128. See Lisa M. Bowman, *Industry Group Hones Patent Standards*, CNET NEWS.COM, at <http://news.com.com/2100-1023-948206.html> (Aug. 2, 2002) (noting move to allow patented technologies in official standards).

129. See Wade Roush, *Web Tolls Ahead?*, INNOVATION 20 (January/February 2002).

130. See Margaret Kane, *W3C Publishes Patent Policy*, CNET NEWS.COM, at <http://news.com.com/2100-1023-824334.html> (Jan. 28, 2002) (detailing proposed policy); Michael Champion, *Patents and Web Standards Town Hall Meeting*, XML.COM, at <http://www.xml.com/pub/a/2001/12/19/patents.html> (Dec. 19, 2001) (discussing emergence of issue and likely adoption of policy that would prefer, but not commit exclusively to, royalty free standards by May 2002).

dards to be available for royalty free licensing.¹³¹ Even under this new policy, there are still unanswered questions about how the W3C could enforce such a policy, leading W3C officials to acknowledge that the organization does not know how it would deal with exceptional cases where patented technologies were only available for a fee.¹³² This uncertainty underscores both that proprietary development is an important reality that will impact the Internet's future development and that standard setting bodies can play an important role in ensuring open standards and disciplining licensing policies.

The importance of standard setting and the dynamics of network markets are lessons that intellectual property law and antitrust law will continue to assimilate in moving towards a sensible information law regime. One important dimension of the emerging scholarship in this area—like in the open source area—is to highlight how the norms of the Internet world, as sometimes embodied by standard setting bodies, can constrain private self-interested action by creating an enlightened self-interest ethic that leaves all participants better off. In the standard setting arena, for example, the insistence on “reasonable and non-discriminatory” licensing terms for patented technologies included in a standard ensures that parties are compensated for their inventions, but are not able to extract extra rents for their invention by withholding permission to use an individual component of a larger standard.¹³³ Legal commentators and policymakers have only begun to appreciate such points,¹³⁴ but given the lack of coherence between the relevant legal regimes and limited caselaw,¹³⁵ the legal regulation of standard set-

131. See Margaret Kane, *W3C Retreats from Royalty Policy*, CNET NEWS.COM, at <http://news.com.com/2100-1023-845023.html> (Feb. 26, 2002).

132. *Id.* (quoting Daniel J. Weitzner, chair of the patent policy working group at the W3C).

133. See Joseph Farrell & Carl Shapiro, *Standard Setting in High-Definition Television*, BROOKINGS PAPERS ON ECONOMIC ACTIVITY: MICROECONOMICS 1992 at 42 (discussing this practice of the American National Standards Institute).

134. Mark Lemley is the clear leader in this field. See Mark A. Lemley, *Antitrust and the Internet Standardization Problem*, 28 CONN. L. REV. 1041 (1996); Lemley & McGowan, *supra* note 80.

135. For some of the leading cases, see Press Release, F.T.C., *Dell Computer Settles FTC Charges; Won't Enforce Patent Rights for Widely Used Computer Feature* (Nov. 2, 1995), available at www.ftc.gov/opa/1995/9511/dell.htm (describing FTC action to prevent Dell from enforcing patent not disclosed during standard setting). See also *Wang Lab., Inc. v. Mitsubishi Elecs., Inc.*, 103 F.3d 1571, 1578-82 (Fed. Cir. 1997) (patent not disclosed during standard setting gives rise to implied license under patent law); *Addamax Corp. v. Open Software Found., Inc.*, 888 F. Supp. 274 (D. Mass. 1995) (allowing action against standard setting organization to proceed past summary judgment phase).

ting remains an under appreciated, important, and murky topic.¹³⁶

Finally, let me note that there may well be a important role for non-commercial development and preservation of intellectual property that is distinct from open source development on a commercial basis. First, despite the Bayh-Dole Act's support for university patenting and commercialization of inventions,¹³⁷ there is still a strong ethic for university development of ideas that can be dedicated to the public domain.¹³⁸ Second, as Molly van Houweling explains, there is also a role for non-profit preservation of inventions in the public domain on a similar model for what conservationists have used for real property—i.e., the development of a land trust-type model.¹³⁹

V. THE FIRST AMENDMENT AND THE INFORMATION AGE

The information age presents a number of puzzles for First Amendment law. Most basically, there are two sides of the First Amendment information law coin, each of which suggest a different role for government regulation of information platforms. On one side, the First Amendment supports the development of measures, such as the imposition of access obligations on communication companies, to ensure “the widest possible dissemination of information from diverse and antagonistic sources.”¹⁴⁰ On the other side, the First Amendment calls for constitutional scrutiny of such regulations, making it the “preferred constitutional assault vehicle for . . . challenging government regulation.”¹⁴¹ The future of information platform regulation will ultimately need to harmonize these two roles. In a very preliminary attempt to do so, I will outline how the First Amendment can work both as a constitutional norm that calls for supporting public access to the

136. See Mark A. Lemley, Antitrust, Intellectual Property, and Standard Setting Organizations (April 2002) (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=310122).

137. Pub. L. No. 96-517, 94 Stat. 3015, 3019-28 (codified as amended at 35 U.S.C. §§200-12 (1994)).

138. For a sense of the debate on the impact of patenting on scientific and university-based research, compare Arti Kaur Rai, *Regulating Scientific Research: Rights and the Norms of Science in Biotechnology Research*, 94 Nw. U. L. REV. 77 (1999) with F. Scott Kieff, *Facilitating Scientific Research: Intellectual Property Rights and the Norms of Science—A Reply to Rai and Eisenberg*, 95 Nw. U. L. REV. 691 (2001).

139. See Molly Shaffer Van Houweling, *Cultivating Open Information Platforms: A Land Trust Model*, 1 J. TELECOMMS. & HIGH TECH. L. 309 (2002).

140. *United States v. Associated Press*, 326 U.S. 1, 20 (1945); see also *New York Times Co. v. Sullivan*, 376 U.S. 254, 270 (1964) (emphasizing First Amendment commitment to public debate that should be “uninhibited, robust, and wide-open”).

141. Kearney & Merrill, *supra* note 3, at 1370.

media as well as a check on the imposition of unreasonable access obligations.

A. *The First Amendment as a Constitutional Norm*

A major thrust of telecommunications policy, alongside of competition policy and consumer protection, is to ensure that citizens benefit from a healthy marketplace of ideas. As such, the FCC's enabling legislation as well as its regulations continue to address the value of preserving a diversity of voices in the marketplace of ideas. Nonetheless, the FCC's efforts over the years to foster a diverse marketplace of ideas—from the Fairness Doctrine's insistence on rights of reply on broadcast television to creating public, educational, and governmental cable channels—have not exactly been thriving success stories.

The First Amendment envisions a robust marketplace of ideas, but as the Supreme Court held in the *Tornillo* case, it does not provide would-be speakers with any guarantees of access.¹⁴² One explanation for the one way ratchet of First Amendment enforcement—for rights of information providers, but not for rights of receivers to talk back—is to view the need for affirmative access obligations as “underenforced” constitutional norms—i.e., those enforced by branches of the government other than the federal judiciary.¹⁴³ A salutary benefit of this perspective is that it underscores the benefits of subsidizing speaking opportunities and opportunities for public debate directly rather than relying on private parties to act according to government regulation, and against their own interest, to provide such opportunities. Put simply, PBS is in, the Fairness Doctrine is out.¹⁴⁴

By appreciating the government's responsibility to facilitate democratic participation, policymakers may begin to take a broader look at the tools available to realize the First Amendment's aspiration for robust public debate. Among other things, we might begin to shift our focus from mandating that cable companies devote valuable spectrum for public access channels to instead shifting the value of the spectrum to support Internet-centered efforts that would create much richer opportunities for

142. See *Miami Herald Publ'g Co. v. Tornillo*, 418 U.S. 241 (1974).

143. See Lawrence Gene Sager, *Fair Measure: The Legal Status of Underenforced Constitutional Norms*, 91 HARV. L. REV. 1212 (1978); Lawrence G. Sager, *Justice in Plain Clothes: Reflections on the Thinness of Constitutional Law*, 88 NW. U. L. REV. 410 (1993).

144. For such an argument, see Henry Geller, *Public Interest Regulation in the Digital TV Era*, 16 CARDOZO ARTS & ENT. L.J. 341, 362-66 (1998).

public debate.¹⁴⁵ The goal of such efforts, as Yochai Benkler has eloquently explained, would be to empower consumers to become users of media technology and producers of information.¹⁴⁶ In so doing, the government would reinforce an amazing part of the Internet: its nature as a many-to-many medium that enables millions of individuals to become publishers.¹⁴⁷ Moreover, as Ellen Goodman explains, a communications policy based on subsidizing certain forms of speech through access to spectrum or conditioned benefits can move away from relying on “scarcity” to justify efforts to ensure a diverse marketplace of ideas and pave the way for a more sensible First Amendment doctrine.¹⁴⁸

B. *The First Amendment as a Constraint on Regulation*

In evaluating how the government can regulate information platforms either through conferring intellectual property rights or mandating access, the First Amendment will be an area where the courts will need to develop a sensible framework for allowing sufficient leeway for sound regulation while at the same time safeguarding the public interest. Thus, it should not be a surprise that the debate over the role of First Amendment in the digital age will often pit claims of the need to scrutinize interest-group legislation that is designed to preserve the status quo and/or address phantom competitive concerns against a concern that an overly intrusive standard would create a form of a First Amendment Lochnerism.¹⁴⁹

On the interest group regulation point, it is clear that some accountability for the validity of restrictions on the use of infor-

145. See, e.g., Neil Weinstock Netanel, *Cyberspace 2.0+*, 79 TEX. L. REV. 447, 471-75 (2000) (reviewing ANDREW L. SHAPIRO, *THE CONTROL REVOLUTION* (1999)) (discussing Andrew Shapiro’s conception of a “PublicNet”).

146. See Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access*, 52 FED. COMM. L.J. 561, 562 (2000) (making this point).

147. See Kevin Kelly, *The Web Runs on Love, Not Greed*, WALL ST. J., Jan. 3, 2002, at A8 (noting that 70% of the 3 billion web pages are built by individuals for the desire to share ideas, not to make money).

148. See Goodman, *supra* note 40; see also Weiser, *supra* note 41, at 13-15 (calling for a shift in First Amendment doctrine away from the *Red Lion* regime).

149. Compare *Turner Broad. Sys., Inc. v. FCC*, 819 F. Supp. 32, 65 (D.D.C. 1993) (Williams, J.) (without a clear showing of the need for regulation, “the door is open—even in the area of First Amendment rights—to exercise of the most naked interest-group preferences”), with Respondents’ Oral Argument, 1995 WL 733396, at 34-35 (Dec. 6, 1995), *United States v. Chesapeake & Potomac Tel. Co.*, 516 U.S. 415 (1996) (Justice Breyer’s comparison of greater First Amendment scrutiny to “Lochnerism”), and *United States et al. v. United Foods, Inc.*, 121 S. Ct. 2334, 2348 (2001) (“I do not believe the First Amendment seeks to limit the Government’s economic regulatory choices . . . any more than does the Due Process Clause.”) (Breyer, J., dissenting).

mation platforms can increase the quality of lawmaking and regulation. With regard to the limitations on telephone company provision of video services, for example, the line of business restrictions in place before the Telecom Act rested on little or no reasoned basis. Not surprisingly, every court to consider the issue concluded that these regulations could not pass First Amendment muster before the Telecom Act rendered the issue moot.¹⁵⁰ By insisting on an intermediate standard of review in the *Turner* case, the Supreme Court sought to encourage such careful reviews, but also to ensure that Congress, state agencies, and the FCC enjoyed discretion in implementing economic regulation that governs the information industries.¹⁵¹

Recent events confirm that firms in the information industries will eagerly invoke First Amendment arguments to challenge governmental regulation and that courts may be too willing to second guess reasonable public policies. With respect to the open access regulation of cable modems in Broward County, Florida, for example, one court invalidated such regulations on First Amendment grounds because they were “adopted at the behest of a telephone company seeking to eliminate or hamper a competitor.”¹⁵² To be sure, many telephone companies have championed open access as a means of obtaining “regulatory parity” with cable broadband providers, but this fact alone should not suggest that such regulations are impermissible on First Amendment grounds. Rather, as the Fourth Circuit sensibly held in *Satellite Broadcasting and Communications Ass’n v. FCC*, a regime premised on ensuring regulatory parity is a legitimate policy concern.¹⁵³ Nonetheless, in the face of rulings like that from the *Broward County* case as well as lingering questions about what level of detail must be developed to justify prophylactic regulation on information platforms,¹⁵⁴ it seems likely that

150. See *Chesapeake & Potomac Tel. Co. v. United States*, 42 F.3d 181 (4th Cir. 1994), *cert. granted*, 515 U.S. 1157 (1995), *judgment vacated as moot*, 516 U.S. 415 (1996); *US West, Inc. v. United States*, 48 F.3d 1092 (9th Cir. 1995); *S. New England Tel. Co. v. United States*, 886 F. Supp. 211 (D. Conn. 1995); *NYNEX Corp. v. United States*, Civil No. 93-323-C, 1994 WL 779761 (D. Me. 1994); *Bellsouth Corp. v. United States*, 868 F. Supp. 1335 (N.D. Ala. 1994); *Ameritech Corp. v. United States*, 867 F. Supp. 721 (N.D. Ill. 1994).

151. See *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622 (1994).

152. *Comcast Cablevision of Broward County, Inc. v. Broward County, Florida*, 124 F. Supp. 2d 685, 696 (S.D. Fla. 2000).

153. See *Satellite Broad. and Communications Ass’n v. FCC*, 275 F.3d 337 (4th Cir. 2001); see also H.R. Rep. No. 106-79, pt. 1, at 11 (1999) (legislative history highlighting concerns with regulatory parity); Goodman, *supra* note 43, at 264-65 (explaining how SHVIA took account of regulatory parity concerns).

154. See *Time Warner Entm’t Co., L.P. v. FCC*, 240 F.3d 1126 (D.C. Cir. 2001).

such litigation will be a growth industry among lawyers and will become a growing concern among policymakers.

CONCLUSION

The regulatory regime for information platforms is only beginning to take shape. In this emerging legal environment, somewhat like that presented by the advent of the progressive era of regulatory statutes during the early part of the 1900s, policymakers and commentators are going to continue to debate the virtues and pitfalls of different forms of regulation—statutory, common law-like, agency-generated rulemakings, self-regulation by standard setting bodies, or private ordering by contract. Where courts must act—say, in the First Amendment area—they are often humbled by the concern that overreaching for categorical rules will backfire as technology and the market quickly overruns even today’s sensible rules.¹⁵⁵ Eventually, policymakers will settle on a more stable regime for information law, but not before a period of “muddling through.”

The effort to harmonize the goals of the relevant legal tools—starting with the basic rights and control provided by the intellectual property laws, as limited by telecommunications regulation and antitrust—presents commentators, lawyers, and judges with a very formidable challenge.¹⁵⁶ Happily, the papers and participation at this conference suggest a strong set of voices and appetite for tackling the difficult issues ahead. I look forward to more discussions of these issues in the *Journal of Telecommunications and High Tech Law* in the years to come, which I hope will inspire future lawyers and technologists to enter the field with new passion and perspective.

155. See, e.g., *Denver Area Educ. Telecomms. Consortium, Inc. v. FCC*, 518 U.S. 727, 778 (1996) (Souter, J., concurring) (in the dynamic world of telecommunications, judges should “[f]irst, do no harm” (quoting the Hippocratic Oath)); *Name.Space, Inc. v. Network Solutions*, 202 F.3d 573, 584 n.11 (2d Cir. 2000) (taking an “evolutionary” approach that favors “narrow” holdings that allow for “case-by-case” adjudication).

156. Phil Weiser, *Paradigm Changes in Telecommunications Regulation*, 71 U. COL. L. REV. 819, 847 (2000).

A LAYERED MODEL FOR INTERNET POLICY

KEVIN WERBACH*

ABSTRACT

Today, communications regulators mechanically apply outmoded categories to novel converged services, creating irresolvable contradictions and forcing hair-splitting distinctions that seldom hold up under the strain of judicial review or market forces. Policy-makers should reformulate communications policy around the technical architecture of the Internet itself, which is based on end-to-end design and a layered protocol stack. Horizontal service and geographic classifications should be reconceived in terms of four layers: content, applications or services, logic and physical infrastructure. Different policy approaches should be used for each layer, and regulators should turn their attention from pricing to the openness of interfaces between layers and competing services. The layered model would make many of the conflicts that bedevil regulators more tractable. It would bring important issues to the surface, and would put communications policy on a sound footing for the future.

INTRODUCTION

It has been clear for some time that the Internet would challenge the regulatory and business models governing communications in the U.S.¹ When Internet usage was miniscule compared to traditional telecommunications services such as circuit-

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1. See, e.g., KEVIN WERBACH, DIGITAL TORNADO: THE INTERNET AND TELECOMMUNICATIONS POLICY (FCC, OPP Working Paper Series 29, Mar. 1997), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp29pdf.html; David Isenberg, *The Rise of the Stupid Network*, at <http://www.rageboy.com/stupidnet.html> (last visited Feb. 24, 2000). This article focuses on the particulars of communications policy in the U.S. However, the Internet is a global phenomenon. Specific rules differ from country to country, but the basic framework described herein is equally relevant elsewhere.

switched voice telephony, policy-makers could sweep Internet-related challenges under the rug. Now, the days when legislators and regulators could simply ignore the Internet's unique demands are over. With over 100 million active U.S. Internet users² and Internet protocol (IP)-based offerings competing directly with traditional services, the time for a coherent Internet policy framework is fast approaching.

This article describes what a new regulatory framework might look like. Rather than mechanically applying outmoded categories to novel converged services, regulators should reformulate communications policy with the Internet at the center. Tactical steps will be necessary to avoid disruptions during the transitional period. Beyond that, the best place to start is with the technical architecture of the Internet itself, which differs in important ways from that of traditional telecommunications and broadcast networks. The horizontal service and geographic classifications that have governed communications regulation since the passage of the Communications Act of 1934³ (Communications Act) should be reconceived in terms of vertical layers. Different policy approaches should be used for each layer, and regulators should turn their attention from pricing to the openness of interfaces between layers and competing services.

This article first describes, in Section I, the existing framework of horizontal categories and the Federal Communications Commission's (FCC's) current approach to the Internet. Section II analyzes the failings of the current framework, using the examples of reciprocal compensation and broadband open access. Section III suggests an alternate course of action for policy-makers. This approach begins with tactical "muddling through" during a transition period, and ends with a restructuring of communications policy around a vertical four-layer model. Finally, Section IV describes briefly how the layered model reframes some of the difficult questions identified previously,

2. Nielsen/NetRatings estimates the active U.S. home Internet audience at 105 million in February 2002, out of a total home Internet audience of 167 million. *Average Web Usage*, NETRATINGS, at <http://pm.netratings.com/nnpm/owa/NRpublicreports.usagemonthly> (last visited Apr. 3, 2002). Over 40 million Americans access the Web from work, though many of these are also home users. *Average Web Usage*, NETRATINGS, at <http://pm.netratings.com/nnpm/owa/NRPublicReports.Usages> (last visited Apr. 3, 2002). Nielsen/NetRatings estimates the global home Internet audience at 455 million in January 2002, of which 260 million are active users. *November 2001 Global Internet Index Average Usage*, NETRATINGS, at http://www.netratings.com/corporate/corp_hot_off_the_net.jsp (last visited Apr. 3, 2002).

3. Communications Act of 1934, Pub. L. No. 73-416, 48 Stat. 1064 (codified as amended at 47 U.S.C. §§ 151-615b (Supp. V 1999)) [hereinafter Communications Act].

and explains how the model highlights the critical issue of interfaces that the traditional approach buries.

I. THE EXISTING REGULATORY FRAMEWORK

Before discussing the future of communications policy, it is useful to understand its present.⁴ The Internet creates particular tensions with the outdated but deeply rooted structure of the current regulatory framework.

A. *Horizontal Categories*

Traditionally, communications policy was organized around horizontal divisions between service categories and between geographic regions.⁵ The Communications Act began with a catch-all jurisdictional grant to the FCC in Title I, then defined two basic regulated categories: Title II common carriers (wireline voice telephone companies) and Title III users of radio spectrum (radio communications and subsequently television broadcasters).⁶ Over time, new services arose that did not fit the existing paradigm, most prominently cable television services that were both wired and broadcast. In response, the FCC and Congress simply created new horizontal categories with different rules.⁷ For example, Congress added Title VI to accommodate cable television services.⁸ The Communications Act also divided commu-

4. For a more thorough treatment of the basis for the current regulatory framework, see JASON OXMAN, *THE FCC AND THE UNREGULATION OF THE INTERNET* (FCC, OPP Working Paper No. 31, July 1999), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp31.pdf and John Nakahata, *Regulating Information Platforms: The Challenge of Rewriting Communications Regulation from the Bottom Up*, 1 J. TELECOMMS. & HIGH TECH. L. 95 (2002).

5. The divisions are horizontal in the sense that they may be visualized as a series of stovepipes lined up next to one another.

6. See Communications Act, *supra* note 3.

7. See, e.g., Cable Communications Act of 1984, 98 Pub. L. No. 549, 98 Stat. 2780 (codified as amended at 47 U.S.C. §§ 521-73 (Supp. V 1999)) [hereinafter Cable Act of 1984] (establishing a new regulatory category for cable television); Telecommunications Act of 1996, 104 Pub. L. No. 104, §§ 3(41), 3(48)-3(51), 110 Stat. 56, 59-60 (adding new definitions of information services and categories related to telecommunications). The organization of the FCC into subject-area Bureaus, and the introduction of new Bureaus such as Cable Services, tracks the horizontal framework. When it comes to its operational structure, the FCC appears to recognize that the horizontal model isn't appropriate for the coming Internet era. The FCC's recent restructuring revamped the Bureau structure to a limited extent. See *FCC Approves Reorganization Portion of Reform Effort*, FCC News Release, at http://www.fcc.gov/Bureaus/Miscellaneous/News_Releases/2002/nrmc0202.html (Jan. 17, 2002); FED. COMMUNICATIONS COMM'N, STRATEGIC PLAN: A NEW FCC FOR THE 21ST CENTURY (1999), at http://www.fcc.gov/21st_century/draft_strategic_plan.pdf (Aug. 12, 1999).

8. See Cable Act of 1984, *supra* note 7.

nications along geographic lines. The FCC has jurisdiction over interstate services, while state public utility commissions and local authorities oversee intrastate communications.⁹

The horizontal model presumes that regulators can assign every service to a specific category. In the era of analog networks, this model was relatively easy to implement, as each service had discrete physical plant and outputs. For example, telephone networks carried voice, while over-the-air television networks carried broadcast video. Where one company provides two different services, as in the case of a Regional Bell Operating Company (RBOC) that owns cellular telephone licenses in addition to offering wireline telephony, the company must apply the appropriate rules for each of its services. Within each category, services may be split geographically, as with basic telephone service, which includes state-regulated local service and FCC-managed interstate access. This separation complicates the regulatory picture, but does not compromise the stovepipe picture of horizontal categories.

For most of the twentieth century, companies that controlled physical infrastructure of communications also controlled service definitions. Regulators generally granted these providers *de jure* or *de facto* monopolies within a defined area. This arrangement was consistent with the horizontal model, which focuses on conceptual distinctions between services offered rather than the internal structure used to provide those services. Regulating by categories held up even after the post-*Carterphone* deregulation of telephony, culminating in the court-ordered breakup of AT&T. Although end-users and competitive carriers gained the ability to plug into the network in new ways,¹⁰ these new participants still could fit into familiar horizontal boxes.

B. *Classifying Computing*

The introduction of computers into communications networks challenged the horizontal model.¹¹ Data services, such as store-and-forward voice mail or value-added networks like Com-

9. See 47 U.S.C. § 152(a) (Supp. V 1999) (“The provisions of this act shall apply to all interstate and foreign communications by wire or radio . . .”).

10. See *Use of the Carterfone Device in Message Toll Tel. Service*, *Decision*, 13 F.C.C.2d 420 (1968); *Hush-A-Phone Corp. v. United States*, 238 F.2d 266 (D.C. Cir. 1956).

11. Digitalization came to wireline telephone networks much sooner than to wireless (which only changed over in the last five years or so) and broadcast (which has only begun to switch to digital television). Telephone networks are also relatively ubiquitous and inherently bi-directional, which made them the preferred platform for most computer-driven applications. Consequently, existing policies for

puServe, began to operate *on top of* the voice network. The companies that offered these services were not providing phone service, yet they were delivering something to customers through regulated communications networks. Such services did not fit within the existing horizontal categories. Therefore, pressure mounted for regulators to decide what to do with them.

To resolve this conundrum, the FCC launched the Computer Inquiries.¹² As a result of these proceedings, the FCC essentially added a new horizontal category, enhanced services, carved out of the existing Title II rules.¹³ Thereafter, the FCC distinguished basic services from enhanced services, where basic services are subject to full-blown common-carrier regulation and enhanced services are not. Over two decades, the FCC struggled to refine its framework for enhanced services, particularly with regard to the provision of those services by incumbents (especially pre-divestiture AT&T, then known as the Bell Operating Companies). When the FCC developed the interstate access charge system, for example, it defined enhanced service providers (ESPs) as end-users, thus not subject to per-minute access charges.¹⁴ This “ESP exemption,” first enacted in 1983, has been the subject of vigorous debate and lobbying ever since.¹⁵

hybrid communications and computing services primarily apply to telecommunications.

12. There have been three Computer Inquiries, each with numerous orders, court reviews and reconsideration orders. See Regulatory and Policy Problems Presented by the Interdependence of Computer and Communications Servs. and Facilities, *Notice of Inquiry*, 7 F.C.C.2d 11 (1966) [hereinafter *Computer I*]; Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry), *Final Decision*, 77 F.C.C.2d 384 (1980) [hereinafter *Computer II*]; Amendment of Section 64.702 of the Commission’s Rules and Regulations (Third Computer Inquiry), *Report and Order*, 104 F.C.C.2d 958 (1986) [hereinafter *Computer III*]; see also Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services, *Notice of Proposed Rulemaking*, 10 F.C.C.R. 8360 (1995) (recounting the history of the Computer Inquiries); OXMAN, *supra* note 4. Most of the activity in these proceedings concerns the conditions under which AT&T and its progeny, the RBOCs, may offer computer-based services, and how they must interact with other companies offering such services. R

13. The basic/enhanced distinction made its first appearance in *Computer II*, but it drew on concepts the FCC had earlier articulated in *Computer I*. See OXMAN, *supra* note 4. R

14. See MTS and WATS Market Structure, *Memorandum Opinion and Order*, 97 F.C.C.2d 682, 711-22 (1983).

15. Internet service providers (ISPs) are considered enhanced service providers (ESPs), allowing them to purchase local services from local exchange carriers out of flat-rate local tariffs rather than usage-based interstate access tariffs. See *Id.* at ¶¶ 75-90; WERBACH, *supra* note 1, at 50. When, in 1996, the FCC last sought comment on eliminating the ESP exemption, it received several hundred thousand email messages in response. See Jeff Peline, *Coalition Frowns on ISP Access Fees*, CNET NEWS.COM, at <http://news.cnet.com/news/0-1005-200-316620.html> (Feb. 14, 1997). R

With the Telecommunications Act of 1996 (1996 Act), Congress enacted the most sweeping revisions to telecommunications law since 1934. While the 1996 Act changed many things, it retained the horizontal model framework of communications policy. Congress effectively codified the FCC's basic/enhanced distinction in the 1996 Act's split between "telecommunications" and "information service":¹⁶

The term "telecommunications" means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.¹⁷

...

The term "information service" means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications . . .¹⁸

In 1996, the Internet and the World Wide Web were already a factor in public consciousness, but were far less significant than they are today. Moreover, the 1996 Act culminated several years of legislative effort, much of which occurred before the Internet existed in its present form. Consequently, the 1996 Act mentions the Internet only once, in the Communications Decency Act (CDA) restrictions on indecent online content.¹⁹ The 1996 Act simply did not contemplate the radical changes the Internet would bring to the communications world.

C. "Unregulation" and the Internet

Absent clear Congressional guidance, the FCC formulated its own Internet policy within the legal constraints of the 1996 Act. The FCC avoided imposing traditional telecommunications regulation on Internet-based services through a careful process of decisions and non-decisions. It did so initially on a case-by-case basis. When commercial Internet service providers (ISPs) began offering service in the early 1990s, the FCC classified

16. See Federal-State Joint Board on Universal Service, *Report to Congress*, CC Docket No. 96-45 (April 10, 1998), at 16-25, available at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/fcc98067.pdf (last visited Mar. 22, 2002) [hereinafter *Stevens Report*] (concluding that the telecommunications/information service distinction is functionally identical to the basic/enhanced distinction).

17. 47 U.S.C. § 153(43) (Supp. V 1999).

18. *Id.* § 153(20).

19. The CDA was later struck down by federal courts. See *Reno v. ACLU*, 521 U.S. 844 (1997).

them as ESPs. Therefore, ISPs are not subject to regulated pricing or other obligations.²⁰

Eventually, the FCC labeled its approach toward the Internet “unregulation.”²¹ This approach fostered the growth of pro-competitive and innovative new services by leaving many essential questions unanswered.²² For example, the FCC has never ruled on whether phone-to-phone IP telephony providers must contribute to universal service funding,²³ or whether Internet backbone providers are bound by common-carrier non-discrimination obligations.²⁴ It held off deciding how to classify broadband Internet services over cable infrastructure until March 2002, and even then it created as many new questions as it answered.²⁵ The FCC wisely chose to avoid premature initia-

20. See *supra* text accompanying note 15.

21. See OXMAN, *supra* note 4 (justifying the unregulation approach). Chairman Powell has reiterated and even strengthened the FCC’s commitment to an unregulated Internet. See, e.g., Michael Powell, Remarks Before the Progress & Freedom Foundation, *The Great Digital Broadband Migration* (Dec. 8, 2000), available at <http://www.fcc.gov/Speeches/Powell/2000/spmcp003.html> (last visited July 16, 2002) [hereinafter *Powell Broadband Speech*].

22. For example, the legal status of IP telephony was formally brought before the FCC more than five years ago in the so-called ACTA petition. See *The Provision of Interstate and International Interexchange Telecommunications Service Via the “Internet” by Non-Tariffed Uncertified Entities, America’s Carriers Telecommunication Association, Petition for Declaratory Ruling, Special Relief, and Institution of a Rulemaking*, RM 8775 (Mar. 4, 1996) [hereinafter *ACTA Petition*], available at http://www.fcc.gov/Bureaus/Common_Carrier/Other/actapet.html. The FCC has yet to formally define the status of such services in a rulemaking proceeding.

23. See *id.*; *Stevens Report, supra* note 16.

24. See MICHAEL KENDE, *THE DIGITAL HANDSHAKE: CONNECTING INTERNET BACKBONES* (FCC, OPP Working Paper No. 32, Sept. 2000), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp32.pdf; *Stevens Report, supra* note 16; Inquiry Concerning Deployment of Advanced Telecomms. Capability to All Americans in a Reasonable And Timely Fashion, and Possible Steps to Accelerate Deployment Pursuant to Section 706 of the Telecomms. Act of 1996, *Notice of Inquiry*, 15 F.C.C.R. 16641 (2000). The backbone issue also came before the FCC in connection with the MCI-Worldcom merger, but the companies agreed to divest the MCI backbone in response to pressure from the Department of Justice prior to the FCC’s final review of the deal. See *Application of Worldcom, Inc. and MCI Communications Corp. for Transfer of Control of MCI Communications Corp. to Worldcom, Inc., Memorandum Opinion and Order*, 13 F.C.C.R. 18025 (1998).

25. See Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, *Declaratory Ruling and Notice of Proposed Rulemaking*, FCC 02-77 (Mar. 15, 2002) (classifying cable Internet offerings as information services) [hereinafter *Cable Declaratory Ruling*]. See also Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, *Notice of Inquiry*, 15 F.C.C.R. 19287, 19288 (2000) [hereinafter *Open Access NOI*] (“The Commission has heretofore taken a ‘hands-off’ policy with respect to the high-speed services provided by cable operators.”); John Borland, *Feds Struggle with New Cable Landscape*, CNET NEWS.COM, at <http://news.cnet.com/news/0-1004-200-340307.html> (Mar. 23, 1999).

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tion of rulemaking proceedings, recognizing the dangers of regulatory intervention in competitive, fast-moving markets.²⁶

Some questions are best left unasked, at least for a period of time. At some point, though, the costs in regulatory uncertainty and market distortions of not asking—and answering—those questions will exceed the benefits of a “hands-off” policy.²⁷ The FCC’s “unregulation” concept suggests that the agency recognizes the Internet cannot be integrated into the established framework. The FCC is following the dictates of the Hippocratic Oath for doctors: “First, do no harm.” There is more to medicine, however, than this laudable idea. If the patient is seriously ill, doing nothing will eventually result in significant ill effects. The following sections diagnose the problems with the current communications policy framework, and propose a course of treatment.

II. SQUARE PEGS IN ROUND HOLES

A. *Communications Policy as a Subset of Internet Policy*

The first question to consider is whether the Internet justifies a radical rethinking of policy principles. New technologies arise all the time. There was no such thing as satellite television or voice mail when the current U.S. framework for communications policy took hold early in the last century. Policy-makers addressed these and other advances with minor tweaks and additions to existing law. Such quick fixes will not be sufficient to deal with the Internet.²⁸

26. The FCC’s approach is consistent with the overall framework the Clinton Administration promulgated for U.S. government policy toward the Internet. See THE WHITE HOUSE, A FRAMEWORK FOR GLOBAL ELECTRONIC COMMERCE 4 (July 1, 1997), available at <http://www.ecommerce.gov/framewrk.htm> (“Governments should avoid undue restrictions on electronic commerce.”). The Bush Administration has given no indication that it intends to stray from this formula.

27. For example, if the unregulation of the Internet means that the regulatory treatment and pricing of functionally identical services depends solely on the protocols that carriers employ, those carriers will have incentives to build services around the regulatory categories rather than basing such decisions on normal business considerations. This does not mean that the FCC should always seek to ensure a “level playing field,” because sometimes the status of the company providing the service justifies differential treatment. See *infra* text accompanying note 105. Given the choice, regulators should err on the side of deregulation, but they should regularly reassess the balance.

28. This question about the need for fundamental legal change mirrors the broader debate about whether we need a separate category of cyberlaw. Compare Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach*, 113 HARV. L. REV. 501 (1999), with Frank Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL F. 207 (1996).

There are two ways to think about the application of communications regulation to the Internet.²⁹ The first is to parse existing laws and regulations, and then figure out how Internet-based services fit into those frameworks. Where tensions arise and the answer is not obvious, the FCC and Congress attempt to extend the existing rules to cover the new Internet services in a reasonable way. Policy is normally made in this manner. The second option is to start from the policy goals that undergird the legal structure, and from an understanding of the technological changes that the Internet heralds. This latter approach is the only way to achieve appropriate results when, as is the case with the Internet, the new services fundamentally undermine the assumptions of the current regulatory structure.

The Internet is going to swallow telecommunications. Data traffic is growing much faster than voice, and promises to dominate future capacity demands on all major networks.³⁰ The public-switched telephone network (PSTN) as we know it will not suddenly disappear. Circuit-switched traffic still accounts for the vast majority of telecommunications *revenues*, and will for some time.³¹ But there is no doubt which way the wind is blowing.³² All current and future communications switching and transport systems are digital, which means that at the basic technical level voice and data are interchangeable. A voice network cannot comprehend data, except as unintelligible noise, but

29. These two approaches resemble the two phases of Constitutional law proposed by Bruce Ackerman. Ackerman distinguishes “normal politics” from extraordinary “constitutional moments” subject to different rules. *See generally* BRUCE ACKERMAN, *WE THE PEOPLE* (1991).

30. For surveys of available data about Internet traffic growth rates, see K.G. Coffman & A.M. Odlyzko, *Internet Growth: Is There a “Moore’s Law” for Data Traffic?*, AT&T Labs—Research, at <http://www.research.att.com/~amo/doc/internet.moore.pdf> (June 4, 2001) (concluding that at the end of 2000, U.S. voice traffic totaled 53,000 Terabits per month, while Internet traffic represented 20,000-35,000 Terabits per month, growing significantly faster). *But see* A. Michael Noll, *Voice vs. Data: Estimates of Media Usage and Network Traffic*, at <http://www.arxiv.org/abs/cs.CY/0109007> (last modified Sept. 5, 2001) (finding that in a survey of small groups of students, voice traffic significantly exceeded data traffic).

31. Circuit-switched networks hold open a dedicated channel for the duration of a communications session. In contrast, packet-switched networks divide transmissions into chunks that are routed independently of one another and reassembled on the terminating end. *See* WERBACH, *supra* note 1, at 17-18.

32. All major carriers are deploying Internet protocol (IP)-based equipment into their core networks. *See, e.g.,* *Sprint to Become First Incumbent Local Phone Company to Convert its Network Infrastructure to Next-Generation Packet Network*, Sprint Press Release, at http://www3.sprint.com/PR/CDA/PR_CDA_Press_Releases_Detail/1,1579,4081,00.html (Nov. 5, 2001) (“Sprint (NYSE: FON, PCS) Local Telecommunications Division (LTD) today announced plans to convert its existing digital circuit switched network to a packet switched network beginning in January 2003.”).

a data network sees voice as simply a form of data with certain encoding and quality-of-service characteristics.

Over the past several years, policy-makers have begun to acknowledge that the networks of the future will be data networks that carry voice, video and other services, rather than service-specific networks jury-rigged to pass data traffic.³³ Yet the necessary corollary is rarely articulated: communications policy will be a subset of Internet policy, rather than the reverse.³⁴ There is a historical parallel for such a shift. Twentieth-century U.S. communications law emerged from models developed for two specific industries: railroads and radio. Courts, regulators and legislators generalized these models over time into common carrier and broadcast regulation. Those two paradigms, enshrined in the Communications Act, have proven sturdy enough to address a fast-changing sector and new services such as television and mobile telephony that have emerged during the past seven decades. Now, however, telecommunications and broadcasting are becoming the specific cases of a larger phenomenon: the interconnected digital network of networks we call the Internet.

B. *The Categories Break Down*

Because of its unique characteristics, the Internet sows confusion when it comes into contact with the dominant horizontal categorization approach. The distinction between basic and enhanced services became more difficult to defend with the introduction of services such as IP telephony³⁵ and streaming video, which bear a close resemblance to traditional regulated offerings.³⁶ There is no simple fix, because the basic problem lies in

33. See, e.g., Reed Hundt, Speech to the Institute of Electrical and Electronics Engineers Hot Chips Symposium, *The Internet: From Here to Ubiquity* (Aug. 26, 1997), available at <http://www.fcc.gov/Speeches/Hundt/spreh742.html> (“We need a data network that can easily carry voice, instead of what we have today, a voice network struggling to carry data.”); Powell *Broadband Speech*, *supra* note 21; Michael Powell, “Digital Broadband Migration” Part II (Oct. 23, 2001), available at <http://www.fcc.gov/Speeches/Powell/2001/spmcp109.html>.

34. At an even more general level, communications regulation in the era of the Internet shares important elements with traditionally distinct areas of the law such as antitrust, intellectual property, and First Amendment jurisprudence. Thus, as Phil Weiser argues, these areas may productively be considered together under the rubric of information platforms. See Philip Weiser, *Law and Information Platforms*, 1 J. ON TELECOMM. & HIGH TECH. L. 1, 3-8 (2002).

35. The terms “IP telephony,” “Voice over IP” and “Internet telephony” are frequently used interchangeably, though in some cases “Internet telephony” refers to consumer-oriented services only.

36. See WERBACH, *supra* note 1, at 26-47.

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the deep structure of current policy.³⁷ The hermetically-sealed categories at the core of the horizontal approach are foreign to the Internet.

Unlike traditional communications networks, the Internet does not provide a particular kind of service.³⁸ Its designers set out not to deliver content, but to interconnect networks (hence the name Inter-net). Neither services offered nor physical infrastructure nor geographic location determine whether something is part of the Internet. Instead, the Internet tautologically includes all globally routable interconnected networks that can carry the Internet protocol (IP).³⁹ The developers of IP deliberately made it a lowest common denominator, so that a service such as the World Wide Web can run over everything from Sun workstations on corporate networks to smart mobile phone handsets to television sets using digital cable set-top boxes. This characteristic makes it impossible to classify the Internet into one type of service within the existing classes. In addition, IP is a packet-switching protocol, meaning that communications are not confined to easily-separated circuits with geographically-defined routes. This further complicates traditional service-oriented or geographic classification.⁴⁰

Reciprocal compensation and broadband open access provide two examples of the tensions the Internet creates for communications policy, with more problems on the horizon.⁴¹

1. Reciprocal Compensation

The 1996 Act requires local exchange carriers (LECs) to pay each other for the transport and termination of local traffic, a concept known as reciprocal compensation.⁴² Reciprocal compensation rates are set in state-level negotiation and arbitration proceedings under a cost-based pricing standard.⁴³ Reciprocal compensation only applies to *local* traffic; interstate traffic is covered by the FCC's access charge rules. This distinction matters a

37. Cf. Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access*, 52 FED. COMM. L.J. 561, 562 (2000) (considering the failings of communications policy based on the concept of users as passive recipients of information).

38. See David Clark & Marjorie Blumenthal, *Rethinking the Design of the Internet: The End-to-End Argument vs. the Brave New World*, at <http://www.tprc.org/abstracts00/rethinking.pdf> (Aug. 10, 2000).

39. Private IP-based networks are known as intranets.

40. See WERBACH, *supra* note 1, at 17-18.

41. Nakahata offers other examples. See Nakahata, *supra* note 4.

42. See 47 U.S.C. § 251(b)(5) (Supp. V 1999).

43. See *id.* § 252(d)(2) ("a reasonable approximation of the additional costs of terminating such calls").

great deal in practice, not just because of the level of the charges, but because charges accrue in different directions depending on the classification of the call. Access charges are paid by the carrier in the middle of the call (the inter-exchange carrier (IXC)) to the local carriers at either end (the Local Exchange Carriers, or LECs). Thus, for originating traffic, the LEC gets paid for bringing traffic to the IXC. When reciprocal compensation applies, however, the *terminating* carrier always receives the payment, to recoup the costs of transporting the other carrier's traffic to its destination.⁴⁴

The reciprocal compensation regime works fine if end-users make and receive about the same number of calls. A LEC would therefore pay about as much in reciprocal compensation as it received. If traffic is unbalanced, however, LECs can become either net payers or net recipients of reciprocal compensation. Asymmetric traffic exists in the world of traditional telecommunications—think telemarketers, almost exclusively calling out, or customer-support call centers, almost exclusively receiving calls. These customers generate a relatively small volume of traffic that nets out between carriers, because each carrier usually serves both inbound-heavy and outbound-heavy users.

Dial-up ISPs throw a monkey wrench in the situation. End-users of dial-up ISPs call to initiate an Internet connection; the Internet does not call them.⁴⁵ The ISPs, like call centers, are net recipients of calls, but they generate far more traffic than traditional asymmetric customers. Because the vast majority of end-users still receive their basic telephone service from incumbent LECs (ILECs), reciprocal compensation associated with dial-up ISPs flows almost exclusively from those ILECs to the carriers serving the ISPs, who are largely CLECs. By exploiting the structure of the reciprocal compensation rules, these CLECs

44. The difference makes sense in the existing pricing regime, because it reflects the different billing arrangements for local and long-distance calls. For local calls, the customer pays his or her LEC, meaning that a terminating CLEC has no way to recoup its costs directly. For long-distance calls, the customer pays his or her IXC, which makes the originating LEC the one in need of compensation.

45. This scenario only applies for dial-up Internet access, since broadband connections are generally "always on." The question of broadband intercarrier compensation is beyond the scope of this article. Though broadband is growing, it represents only a small fraction of the Internet access customer base today. Broadband users represented 15 percent of total U.S. home Internet users at the end of 2001, according to research firm Jupiter Media Metrix. See David Lake, *The Need for Speed*, THE INDUSTRY STANDARD, May 7, 2001, at 73.

have amassed aggregate reciprocal compensation balances of several billion dollars.⁴⁶

As reciprocal compensation balances ballooned, most ILECs refused to pay on the grounds that the traffic at issue was not local.⁴⁷ The Internet, they argued, is a global network, even if the call to an ISP is initially local. In a February 1999 declaratory ruling, the FCC attempted to split the difference.⁴⁸ First, it found that traffic to dial-up ISPs was not local. Second, however, the FCC left existing state-level interconnection agreements in place, and sought comment on what a federal inter-carrier compensation regime should look like. The U.S. Court of Appeals for the D.C. Circuit vacated the FCC's decision in March 2000, finding the FCC's jurisdictional analysis unpersuasive.⁴⁹ It remanded the issue to the FCC.

The FCC sought additional comment,⁵⁰ and in April 2001 issued its order on remand.⁵¹ It once again concluded, based on different reasoning, that ISP traffic was predominantly interstate and thus not subject to reciprocal compensation.⁵² Again, it softened the blow for CLECs, this time through an interim recovery mechanism.⁵³ The interim mechanism lowers CLEC payments immediately, caps the amount of ISP traffic for which compensation is owed, and initiates a 36-month transition toward "bill and keep," a compensation-free arrangement for carry-

46. See Implementation of the Local Competition Provisions in the Telecomms. Act of 1996, Intercarrier Comp. for ISP-Bound Traffic, *Order on Remand and Report and Order*, 16 F.C.C.R. 9151, 9154-55 (2001) [hereinafter *Reciprocal Compensation Remand Order*] ("For example, comments in the record indicate that CLECs, on average, terminate eighteen times more traffic than they originate, resulting in annual CLEC reciprocal compensation billings of approximately two billion dollars, ninety percent of which is for ISP-bound traffic."). The ISP reciprocal compensation issue was identified shortly after the passage of the 1996 Act, but pressure to address it didn't develop until these large balances accrued. See WERBACH, *supra* note 1, at 35.

47. CLECs and their supporters pointed out in response that in state-level negotiations, the ILECs had opposed compensation-free "bill-and-keep" arrangements because they expected to be net recipients of traffic in most situations.

48. See Implementation of the Local Competition Provisions in the Telecomms. Act of 1996, Inter-Carrier Comp. for ISP-Bound Traffic, *Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68*, 14 F.C.C.R. 3689 (1999), *vacated by* Bell Atl. Tel. Cos. v. FCC, 206 F.3d 1 (D.C. Cir. 2000).

49. See *Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000).

50. See Comment Sought on Remand of the Commission's Reciprocal Comp. Declaratory Ruling by the U.S. Court of Appeals for the D.C. Circuit, *Public Notice*, 15 F.C.C.R. 15054 (2000).

51. See *Reciprocal Comp. Remand Order*, *supra* note 46.

52. See *id.* ¶ 3.

53. See *id.* ¶¶ 77-79.

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ing traffic.⁵⁴ Along with the order, the FCC issued a new intercarrier compensation notice of proposed rulemaking.⁵⁵ Despite all this maneuvering, the issue is far from resolved.

The reciprocal compensation controversy shows the failings of the horizontal approach for Internet services. First, it is too rigid. A connection to a dial-up ISP has a definite origination point, but no destination in the same sense as a circuit-switched call. From the user's perspective, a Website or an email address may be a destination, but there does not seem to be a separate "call" to each of these locations, just a stream of packets back and forth. Even if there were, it is not so clear what location should be assigned to a Website which might reside on numerous mirrored servers and local caches around the world. Second, in the horizontal paradigm, relatively arbitrary classification decisions have excessively far-reaching consequences. If traffic is local, revenues flow in one direction, but if it is interstate they flow the opposite direction. The economics of the dial-up Internet business and the financial viability of many CLECs turn on an obscure provision in the 1996 Act in a situation Congress appears not to have contemplated at all.

2. Open Access

The debate over open access to broadband Internet access services is another example of the flaws in the horizontal regulatory model. The Communications Act treats voice telephone networks as common carriers under Title II, and cable television networks under a separate set of rules in Title VI. This makes

54. See *supra* note 47.

55. See Developing a Unified Intercarrier Comp. Regime, *Notice of Proposed Rulemaking*, 16 F.C.C.R. 22781 (2001). The FCC acknowledged that there was a more fundamental flaw in its rules:

We recognize that the existing intercarrier compensation mechanism . . . has created opportunities for regulatory arbitrage and distorted the economic incentives related to competitive entry into the local exchange and exchange access markets. As we discuss in the Unified Intercarrier Compensation NPRM, released in tandem with this Order, such market distortions relate not only to ISP-bound traffic, but may result from any intercarrier compensation regime that allows a service provider to recover some of its costs from other carriers rather than from its end-users.

Reciprocal Compensation Remand Order, *supra* note 46, ¶ 2. FCC staff published two working papers during 2001 exploring intercarrier compensation issues in more depth. See PATRICK DEGRABA, BILL AND KEEP AT THE CENTRAL OFFICE AS THE EFFICIENT INTERCONNECTION REGIME (FCC, OPP WORKING PAPER No. 33, DEC. 2000), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp33.pdf; JAY M. ATKINSON & CHRISTOPHER C. BARNEKOV, A COMPETITIVELY NEUTRAL APPROACH TO NETWORK INTERCONNECTION (FCC, OPP WORKING PAPER No. 34, DEC. 2000), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp34.pdf.

sense under the notion that telephone networks are wired networks that carry two-way voice communications, while cable networks are wired networks that carry one-way video programming. In fact, that's exactly how Title VI defines cable:

[T]he term 'cable service' means – (A) the one-way transmission to subscribers of (i) video programming, or (ii) other programming service, and (B) subscriber interaction, if any, which is required for the selection or use of such video programming or other programming service;⁵⁶

The definition of a "cable system" is "a facility. . .that is designed to provide cable service."⁵⁷ Under these categories, the networks are subject to different requirements. Among other things, Title II networks are subject to common-carrier interconnection and non-discrimination requirements, along with the competitive and pricing rules the 1996 Act imposed on incumbents.⁵⁸ Cable networks have special requirements governing their use of video programming (for example, they must offer channel capacity on a "leased access" basis).⁵⁹ But they have no requirement to interconnect with other cable providers or to treat content in a non-discriminatory way. Cable operators must choose some programming over others to fill their limited set of channels, so a common-carrier obligation would not make any sense.

These tidy divisions fall apart when cable networks and telephone networks carry the same services. The FCC first considered this issue when both types of operators attempted to offer the traditional service of the other. For telephone companies offering video programming, the FCC developed the video dialtone rules, superceded under the 1996 Act by the open video system rules.⁶⁰ Cable operators interested in offering telephony were subject to the same rules and requirements as any other new entrant in the local exchange market, described in sections 251 and 252 of the 1996 Act.

Although the horizontal model accommodated initial forays across its boundaries, the existing rules are not adequate to deal with broadband Internet access. Such services include elements of information, cable, and telecommunications services. The end-user service resembles dial-up Internet access, which the FCC has classified as an information service, albeit faster and without

56. 47 U.S.C. § 522(6) (1994 & Supp. V 1999).

57. *Id.* § 522(7).

58. *See id.* §§ 251-52.

59. *Id.* § 532.

60. *See id.* §§ 571-73.

the required phone call for each connection. Requesting and viewing Web pages and engaging in other Internet functions over a cable Internet connection also seems to be “subscriber interaction . . . required for the . . . use of . . . other programming service;”⁶¹ which is part of the definition of cable service. This viewpoint is strengthened by the legislative history surrounding the addition of “or use” to this provision in the 1996 Act.⁶² And finally, cable Internet service can be classed as telecommunications, in that the cable operator gives the subscriber a raw connection to an Internet backbone.

The disparities created by the traditional classifications are highlighted in the “open access” debate. While the rules require digital subscriber line (DSL) operators to carry any ISP, the leading cable operators signed exclusive contracts with two broadband ISPs: Excite@Home and Roadrunner.⁶³ Other ISPs that wish to serve those customers cannot do so over the cable plant. Moreover, the cable ISPs are able to impose content restrictions such as limitations on the length of video streams that subscribers can access. Such restrictions are unremarkable in the Title VI world of cable, but prohibited in the Title II world of common carriers. ISPs, consumer groups, and content providers urged the FCC to mandate that the cable ISPs provide open access to their platforms, similar to what ILECs must do for their broadband DSL services.

61. *Id.* § 522(6)(B).

62. The 1996 Act’s only change in § 522(6) was the addition of the two words “or use,” which to a casual reader may seem to have no substantive import. The relevant hearings and Congressional floor debates, as well as contemporaneous accounts from cable industry lobbyists, make clear that the change was made specifically with interactive and Internet services in mind. “Selection” of video programming means changing channels, but “use” of video programming encompasses broadband Internet services that incorporate streaming video. At the time, the cable industry was concerned that Internet services delivered over cable would be treated as Title II telecommunications services. The addition of “or use” enhanced the industry’s legal argument for keeping these services in the familiar realm of Title VI. See BARBARA ESBIN, INTERNET OVER CABLE: DEFINING THE FUTURE IN TERMS OF THE PAST (FCC, OPP Working Paper No. 30, August 1998), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp30.pdf.

63. Excite@Home (then called @Home) was established by venture capital fund Kleiner, Perkins, Caufield and Byers, in conjunction with several cable operators. It merged in 1999 with Web portal Excite. AT&T assumed voting control over Excite@Home following its acquisition of TCI. Roadrunner is a joint venture of Time Warner Cable (now part of AOL Time Warner) and MediaOne (now part of AT&T Broadband). (Due to financial difficulties, Excite@Home planned to liquidate on February 28, 2002.) See *Excite@Home Announces AT&T Termination of Pending Asset Purchase Agreement and Transition Agreements with Several Cable Companies*, Excite@Home Press Release (December 4, 2001), at <http://www.home.net/news/dec4-01.html> (last visited Feb. 24, 2002). Its subscribers were to be migrated to networks operated by the individual cable partners.

In February 1999, the FCC refused to address open access in a formal proceeding, arguing that the broadband market was too nascent for any regulatory intervention.⁶⁴ Precisely because the FCC did not open a proceeding, it did not rule on the jurisdictional classification of broadband Internet services or prohibit other regulatory authorities from adopting open access rules. When cities such as Portland, Oregon stepped into the breach through the required franchise transfers in the AT&T acquisition of TCI (a major Excite@Home participant) and required open access to cable facilities, the jurisdictional question became critical. AT&T sued Portland, arguing that it did not have the authority to impose open access requirements. On appeal, the Ninth Circuit threw the parties (and the FCC) a curve. It concluded that the Excite@Home service was telecommunications, therefore outside the scope of the cable franchising authority.⁶⁵ This disposed of the case at hand, but opened up a can of worms at the federal level. If cable Internet services are telecommunications, does that make them subject to Title II requirements? And what about Internet access services over telephone networks, both dial-up and DSL?

The FCC announced that, in light of the Ninth Circuit decision in the Portland case, it would begin a proceeding on open access issues.⁶⁶ Finally, in March 2002, it issued a declaratory ruling labeling cable Internet offerings as “information services.”⁶⁷ This decision codified the FCC’s refusal to mandate open access. It did not, however, fully answer the question of how broadband Internet services over cable or other media should be treated. The declaratory ruling put cable Internet services in a nether region, subject to FCC jurisdiction under Title I of the Communications Act but not subject to its existing rules under either Title II or Title VI. Whatever happens in the subsequent regulatory proceedings and court battles to fill in the blanks, the FCC is in a difficult spot because of the limitations of its existing rules.⁶⁸

64. See Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Tele-Communications, Inc., Transferor to AT&T Corp., Transferee, *Memorandum Opinion and Order*, 14 F.C.C.R. 3160 (1999).

65. See *AT&T Corp. v. City of Portland*, 216 F.3d 871 (9th Cir. 2000).

66. See *FCC Chairman to Launch Proceeding on “Cable Access,”* FCC NEWS RELEASE (June 30, 2000), at http://www.fcc.gov/Bureaus/Cable/News_Releases/2000/nrcb0017.html; *Open Access NOI*, *supra* note 25.

67. See *Cable Declaratory Ruling*, *supra* note 25.

68. Open access is a particularly important issue because of what it suggests about the technical architecture of the emerging broadband Internet. See Kevin Werbach, *The Architecture of Internet 2.0*, RELEASE 1.0, February 1999, at 1, available at <http://www.edventure.com/release1/cable.html>; see also Mark Lemley & Law-

C. *Coming Soon: More Problems*

Reciprocal compensation and open access are hardly the last cases where the FCC will face a classification dilemma. As broadband connections multiply, a whole new set of Internet services will become commercially viable. IP telephony, which has so far been limited primarily to free PC-to-phone services and international calling, will become a much more direct competitor through next-generation voice-over-DSL hardware, IP-based softswitches and other equipment. It will become possible to distribute television-quality video programming over the Internet, competing directly with existing broadcast and cable offerings. Though most Internet usage falls outside the statutory definition of broadcasting, which specifies use of the radio spectrum,⁶⁹ the Internet will eventually pose at least as great a competitive threat to existing video distribution mechanisms as early cable services did to over-the-air broadcasters. As they did in the cable situation, broadcasters will likely appeal to the FCC to impose a “level playing field,” and the FCC will be hard-pressed to respond using the horizontal model.

III. A BETTER WAY

There is a better way. Rebuilding communications regulation for the Internet era will not be easy, but it is possible. At the tactical level, the FCC should expressly acknowledge that the current period is one of transition, and that in such an era the tools of the past may not be the most appropriate guide. Then, going forward, the FCC should get out in front of the technological developments now underway and develop a new policy framework. This framework should replace horizontal categories with vertical layers, definitional challenges with policy goals and price regulation with a focus on open networks.

A. *Muddling Through*

The layered model is the primary focus of this article. However, the intermediate steps are also important. Though putting a comprehensive structure into place is important, policy-makers should be sensitive to the transitional nature of the current environment. There won't be a flash cut to something better. First, such a change would be highly disruptive, as large sums of

rence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. Rev. 4 (2001).

69. See 47 U.S.C. § 153(6) (Supp. V 1999) (“The term ‘broadcasting’ means the dissemination of radio communications intended to be received by the public . . .”).

money depend on the regulatory and pricing arrangements now in place. Second, even if it were clear where communications regulation should go, getting there involves at the least FCC rulemaking proceedings, and most likely also Congressional action, both of which involve significant time lags, comment periods, negotiation processes and so forth.

Communications policy is like sausage—even if you like the results, you may not want to know how it *really* gets made. Under the formal tenets of administrative law, Congress delegated authority to the FCC to implement statutory mandates, with the courts serving as a check against “arbitrary and capricious” agency actions.⁷⁰ This only tells part of the story. In theory Congress makes the hard decisions and delegates only the details to the expert agency, but in reality Congress often sets general policy frameworks and leaves it to the FCC to hammer out many of the hard issues.⁷¹ On the most important issues, Congressional dictates are seldom unambiguous. The cycle of contested FCC proceedings, often featuring formal or informal interjections by individual Members of Congress, followed by litigation and possible reversal of the FCC, shows just how much reasonable minds can differ on these questions.

Though the FCC has never stated it in this manner, the FCC’s Internet-related efforts to date have often been animated by a desire to avoid bad results.⁷² In many cases, the results the FCC sees as potentially harmful appear to be dictated by the very statutes it is required to implement. Consequently, the FCC has often had to bide its time, and decide not to decide.

A good example of this is the FCC’s April 1998 Report to Congress on Universal Service, known as the “Stevens Report.”⁷³ The Senate Appropriations Committee, chaired by Senator Stevens of Alaska, directed the FCC to issue the report as a condi-

70. See Administrative Procedure Act, 5 U.S.C. § 706 (2000).

71. See *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 844 (1984). Under *Chevron*, administrative agencies are entitled to deference in their interpretations of Congressional mandates. When reviewing recent FCC decisions, however, the courts have shown little hesitation in finding the FCC’s actions arbitrary and capricious. Reciprocal compensation is a good example. See *Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000).

72. See OXMAN, *supra* note 4. There are certainly exceptions, including the schools and libraries or “E-Rate” program that has dramatically improved the rate of Internet connectivity at such institutions. See GREAT EXPECTATIONS: LEVERAGING AMERICA’S INVESTMENT IN EDUCATIONAL TECHNOLOGY (Norris Dickard ed., Benton Foundation 2002); Reed Hundt, Speech to the National School Boards Association, *Giving Schools and Libraries the Keys to the Future* (Jan. 27, 1997), available at <http://www.fcc.gov/Speeches/Hundt/spreh704.html>.

73. See *Stevens Report*, *supra* note 16.

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tion of the FCC's budget appropriation.⁷⁴ Senator Stevens made it quite clear that he believed the FCC was misguided in its treatment of Internet services, especially IP telephony, which he felt should be subject to universal service obligations.⁷⁵ The Committee asked pointed questions, leaving little doubt as to what answers it expected:

The report . . . shall provide a detailed description of the extent to which the Commission interpretations . . . are consistent with the plain language of the Communications Act . . . and shall include a review of . . . who is required to contribute to universal service . . . and of any exemption of providers or exclusion of any service *that includes telecommunications* from such requirement or support mechanisms (emphasis added)⁷⁶

The FCC had previously reaffirmed that ISPs should not be subject to access charges, and had avoided imposing any Title II obligations on IP telephony. It could not simply repeat these positions in the Stevens Report, because the appropriations language and Committee pressure obligated it to explain specifically how services such as IP telephony could be classed as “information services” and not “telecommunications services.”

The FCC avoided the desired conclusion that IP telephony was telecommunications by dividing IP telephony into three categories: phone-to-phone, PC-to-phone and PC-to-PC. It acknowledged that phone-to-phone IP telephony, tentatively defined under a four-part test, was probably telecommunications: “Thus, the record currently before us suggests that this type of IP telephony lacks the characteristics that would render them “information services” within the meaning of the statute, and instead bear the characteristics of “telecommunications services.”⁷⁷

74. The link to the agency's annual funding was important because it made it impossible for the FCC to ignore the Congressional request, as it had done with previous requests to address IP telephony such as the ACTA petition. *See ACTA Petition, supra* note 22.

75. *See, e.g.*, Statement of Senator Stevens, Universal Service Hearing, June 3, 1997 (prepared text of Senator Stevens' remarks on file with author) (“I am concerned that the continued exemption of information service providers from access charges, with their inherent contribution to universal service, amounts to a continued subsidy by other telecommunications users.”).

76. *See* Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 1998, Pub. L. No. 105-119, 111 Stat. 2440, 2521-2522, § 623.

77. *Stevens Report, supra* note 16, at 44, ¶ 89.

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The exceedingly cautious tone of this sentence suggests how hesitant the FCC was to reach this conclusion.⁷⁸ By concentrating on the small number of commercial phone-to-phone IP telephony providers that provide the most extreme case of an Internet-based telecommunications service, the FCC remained true to its statutory mandate while avoiding the minefield of the ESP exemption.⁷⁹ Remarkably, this tentative and vague conclusion remains the FCC's most direct statement on the regulatory status of IP telephony four years later. Though US West and BellSouth made noises about the Stevens Report, seeking to impose access and universal service charges on IP telephony providers, the FCC has taken no action and the situation remains largely where it was before the Stevens Report.⁸⁰ The Report took the pressure off the FCC, allowing the Internet industry to develop without the threat of imminent regulatory intervention.

Similar tactical maneuvering to avoid regulation will remain important throughout the transition from service-specific networks to next-generation data networks. But there is a danger in carrying this approach too far. Fudging avoids bad or premature decisions, but it does not move the regulatory structure any closer to where it needs to be. Additionally, it can allow pressure to build up to the point where a minor decision becomes a full-throttle battle involving billions of dollars. The FCC will need to think carefully in each case about when to shift from avoiding harmful or disruptive outcomes to a more pro-active strategy.

B. *The Layered Model*

As they muddle through the transition period to quell inevitable conflicts, policy-makers can turn to the most important change: the replacement of horizontal categories with vertical layers as the basis of communications regulation.

As discussed above, the regulatory ambiguity of Internet-related services derives from the dominant horizontal categorization model of communications policy, under which a string of rules apply based on the substantive or geographic status of an offering. There are four primary problems with this approach.

78. The following two paragraphs of the report further reiterate that this decision is not binding and that a more thorough record would be required for any firm conclusion to be made. *See id.* at 44-45, ¶¶ 90-91.

79. The FCC walked a similarly fine line in its treatment of Internet backbone services in the *Stevens Report*. *See id.* at 32-36, ¶¶ 66-72.

80. *See* BellSouth, Policy on IP Telephony, Sept. 1, 1998 (on file with author); US WEST, Letter Regarding Access Charges for IP Telephony, Sept. 11, 1998 (on file with author).

First, it assumes distinctions between services are clear, but in a converged Internet-centric world any network can carry virtually any type of traffic. Second, it applies most rules in an all-or-nothing fashion. To avoid imposing certain provisions, the FCC finds itself compelled to class services in the unregulated “information services” bucket.⁸¹ The FCC and industry participants are also forced to contend with the possibility that if services (such as cable Internet services) bear indicia of more than one regulatory category, they will be subject to *both* sets of rules. Third, the horizontal model looks at each service category in isolation, when increasingly all networks are interconnected and the critical policy issues concern the terms of such interconnection. Fourth, it concentrates on the services ultimately provided to end-users, when competitive dynamics are increasingly driven by behind-the-scenes network architectures.

Rather than seeking to defend ephemeral service boundaries in a digital world, regulation should track the architectural model of the Internet itself. The Internet’s astonishingly rapid growth derives in large part from its technical architecture.⁸² That architecture is based on two characteristics: end-to-end design and a layered protocol stack.⁸³ The Internet’s end-to-end structure means that intelligence resides at the edges.⁸⁴ A new service can be deployed simply by connecting two client devices capable of talking to one another, without requiring any approval or technical configuration inside the network. By contrast, traditional communications networks involve centralized control mechanisms such as switches that must be upgraded when new features are added.

Layering is a well-established concept among technologists, and several other scholars including Yochai Benkler and Law-

81. The 1996 Act does give the FCC the authority to forbear from imposition of virtually any provision of the Act or the FCC’s rules. *See* 47 U.S.C. § 160 (Supp. V 1999). This power, however, has been more theoretical than real, and has been barely invoked in more than four years since the Act’s passage. On its face, the forbearance provisions are a sort of “get out of jail free” card that would allow the FCC to rewrite the Act based on its analysis of real-world conditions. However, political realities, and the possibility of judicial reversal, have kept the FCC from doing so up to this point.

82. *See* Werbach, *supra* note 68; Lemley & Lessig, *supra* note 68. Lawrence Lessig has examined the policy implications of the Internet’s architecture or “code” in great detail. *See* LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (1999).

83. *See* Clark & Blumenthal, *supra* note 38. A full technical description of Internet architecture is beyond the scope of this article.

84. *See* J.H. Saltzer et al., *End to End Arguments in System Design*, available at <http://web.mit.edu/Saltzer/www/publications/endtoend/endtoend.pdf> (Apr. 8, 1981), reprinted in *INNOVATION IN NETWORKING* 195-206 (Craig Partridge ed., 1988); Isenberg, *supra* note 1.

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rence Lessig have adopted it as a tool for legal and policy analysis.⁸⁵ The Internet's layered protocol stack differentiates higher-level functions, such as content presentation, separately from lower-level ones such as congestion buffering and traffic routing.⁸⁶ The Web, Napster and email are all applications that run on top of other Internet protocols. A consequence of layering in an end-to-end environment is that Internet services can be moved up or down the stack as necessary. IP telephony, for example, takes a service – voice – previously delivered at one level and recreates it at a higher level on top of an Internet data stream. Engineers generally describe the Internet's layered structure using what is known as the OSI model, developed in the 1980s by the International Standards Organization.⁸⁷ The OSI model identifies seven layers from physical to application,⁸⁸ but several of these are only relevant from an engineering perspective. For regulatory purposes, it makes sense to think of the Internet as comprised of four layers:

- content
- applications or services
- logical
- physical

Communications policy should be developed around these four vertical layers, rather than the horizontal categories employed today.⁸⁹ In general terms, regulation is more justified at

85. See Benkler, *supra* note 37; LAWRENCE LESSIG, *THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD* 23-25 (2001); see also Timothy Wu, *Application-Centered Internet Analysis*, 85 Va. L. Rev. 1163 (1999) (arguing that cyberlaw should examine the Internet at the application layer). The Internet is layered in the general sense of modular levels of functionality and specifically in its use of a protocol stack. Higher-level protocols for representing data, such as the hypertext markup language used to build Web pages, are encapsulated into lower-level protocols such as IP.

86. See, e.g., Anthony Rutkowski, *The Internet: An Abstraction in Chaos*, *The Internet as Paradigm* (Institute for Information Studies 1997) (explaining the importance of layering); TIM BERNERS-LEE, *WEAVING THE WEB: THE ORIGINAL DESIGN AND ULTIMATE DESTINY OF THE WORLD WIDE WEB BY ITS INVENTOR* 129-30 (1999).

87. The OSI protocol stack is widely used as a conceptual model. However, it is not OSI but the Internet's TCP/IP stack that became the dominant set of protocols for global data networks.

88. The seven layers, in descending order, are: application, presentation, session, transport, network, data link, and physical.

89. Others have made similar connections. In an insightful presentation delivered at the FCC in 1996, economist Jeff Mackie-Mason made a similar (though more general) proposal to view communications developments through the lens of vertical layering as developed in the software and networking industries. See Jeff Mackie-Mason, *Leveraging and Layering: Making Sense of Telecom, Computing and Data Market Structure*, unpublished presentation to the FCC (July 23, 1996), at <http://www-personal.umich.edu/~jmm/presentations/fcc96-layering.pdf> (last visited July

lower layers, because openness at one layer often allows for innovation at higher layers.⁹⁰ What each layer includes, and the implications of this approach, are described below.

1. Physical

Physical infrastructure is the underlying networks: wireline (copper), cable, fiber, terrestrial wireless and satellite. This includes switching as well as transport, from the local loop to the long-haul backbone networks. It is at this level that most communications regulation is concentrated. Even when competition is not an issue, there may be other causes for regulation, such as the disruption involved in tearing up streets to lay cable, the scarcity of space on telephone poles, the need to avoid spectral interference and the need to assign satellite orbital slots. Because infrastructure deployment involves heavy fixed costs, it has historically been viewed as a natural monopoly. In recent decades communications policy has moved away from regulated monopolies toward pro-competitive approaches that rely on market forces to stimulate innovation and keep prices under control. As the 1996 Act demonstrated, however, such “deregulation” generally involves substantial regulatory involvement to ensure that incumbents do not simply shift from regulated to unregulated monopolies. A vertically-layered communications policy would focus on these issues as they apply to all physical infrastructures, starting with the concept that where a physical network owner has market power, regulation may be the only way to ensure an open platform that fosters the beneficial dynamics of competitive markets.

20, 2002). More recently, Yochai Benkler used layers as a framework for examining the relationship of information producers and consumers on the Internet and elsewhere. See Benkler, *supra* note 37. Lawrence Lessig adopts and elaborates on Benkler’s model in his analysis of how the Internet’s original architecture promoted innovation. See LESSIG, *supra* note 85. Benkler and Lessig use a three-layer model: physical, code/logical, and content. The primary difference from the model proposed here is that Benkler places all software applications in one layer. As discussed below, it is useful in the context of communications regulation to separate software that routes traffic around the network (what I call the logical layer), from software exposed to end-users (the application layer). See *infra* text accompanying notes 91-98. This is a minor point. Benkler’s and Lessig’s thoughtful works demonstrate the power of layering as an organizing principle for studying the social and legal dynamics of digital networks.

90. Cf. LESSIG, *supra* note 85, at 44-46 (explaining how, thanks to government regulation, the openness of telephone networks allowed the Internet to come into being). In practice, the level and form of appropriate regulatory action hinges on market and technology dynamics. Under some circumstances, more extensive regulation may be justified at a higher layer, or competition may be sufficient to ensure openness without the need for regulatory intervention.

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2. Logical

Logical infrastructure includes the management and routing functions that keep information flowing smoothly within and across networks. The classic example is the telephone addressing system, which the FCC oversees in conjunction with the North American Numbering Council. In the telephone world, logical infrastructure was tightly coupled to physical infrastructure because of the lack of competition and the focus on the single application family of voice.⁹¹ There is a precedent, however—the FCC’s open network architecture (ONA) rules under Computer III, which govern competitive access to advanced intelligent network features in the telephone network.⁹² Though the ONA implementation process bogged down, the basic notion was the foundation for the unbundled network elements provisions of the 1996 Act. As networks become more dynamic, their logical infrastructures will become increasingly important relative to the physical infrastructure, making a coherent policy approach to such facilities essential.

In the Internet world, logical infrastructure issues have generally not reached government regulatory forums, because the industry has done a sufficiently good job of preserving open standards and competition.⁹³ One issue where a policy-making body

91. Physical and logical infrastructure are tightly coupled as business elements in the PSTN, but they are separated as engineering concepts. The PSTN, in its current digital incarnation, uses a “control plane” physically separate from the “data plane” over which traffic flows. The control plane is known as the signaling system 7 (SS7) network, a private packet network built in parallel to the voice network. On the Internet, there is only one network for both signaling and content. Control functions are embedded within packets sent over the common infrastructure, and separated out by the switches and other devices at the endpoints. To support voice-based services over IP, equipment and software vendors are adopting mechanisms to interconnect with or replace the SS7 network.

92. See Filing and Review of Open Network Architecture Plans, *Memorandum Opinion and Order*, 4 F.C.C.R. 1 (1988) (BOC ONA Order), *pet. for review denied*, California v. FCC, 4 F.3d 1505 (9th Cir. 1993); Filing and Review of Open Network Architecture Plans, *Memorandum Opinion and Order on Reconsideration*, 5 F.C.C.R. 3084 (1990) (BOC ONA Reconsideration Order), *pet. for review denied*, California v. FCC, 4 F.3d 1505 (9th Cir. 1993); Filing and Review of Open Network Architecture Plans, *Memorandum Opinion and Order*, 5 F.C.C.R. 3103 (1990) (BOC ONA Amendment Order), *pet. for review denied*, California v. FCC, 4 F.3d 1505 (9th Cir. 1993); Filing and Review of Open Network Architecture Plans, *Memorandum Opinion and Order on Reconsideration*, 8 F.C.C.R. 97 (1993) (BOC ONA Amendment Reconsideration Order); Filing and Review of Open Network Architecture Plans, *Memorandum Opinion and Order*, 6 F.C.C.R. 7646 (1991) (BOC ONA Further Amendment Order); Filing and Review of Open Network Architecture Plans, *Memorandum Opinion and Order*, 8 F.C.C.R. 2606 (1993) (BOC ONA Second Further Amendment Order).

93. Internet technical standards have traditionally been developed by loose organizations of engineers such as the Internet Engineering Task Force (IETF), which

has become involved is the management of the domain name system (DNS), the closest thing today's Internet has to telephone numbering. For most of the history of the Internet, a set of informal arrangements loosely governed by contracts among various arms of the U.S. government, private companies including Network Solutions Inc. and an informal technical organization that came to be known as the Internet Assigned Numbers Authority provided oversight of DNS. In 1998, the newly-formed Internet Corporation for Assigned Names and Numbers (ICANN) took on the mantle of DNS coordination and policy development.⁹⁴ The Department of Commerce is the lead federal agency overseeing the relationship with ICANN, though FCC staff have been involved in policy discussions through inter-agency working groups. The DNS issues are extremely complex and easily beyond the scope of this article, but they give a flavor of the kinds of logical infrastructure issues that are emerging and the difficulty of finding appropriate institutional structures to deal with them.

Another element of logical infrastructure involves the distributed virtual networks that are poised to become the critical management and distribution points for Internet content, applications and transactions.⁹⁵ The first application of this architecture, promoted by companies such as Akamai and Digital Island, is speeding up delivery of Web pages. By using thousands of edge servers to serve content from the edge of the network close to the end-user, these "meta service networks" avoid bottlenecks in delivering information across the Internet. As they are extended to handle other functions, meta service networks may have a significant impact on issues as diverse as privacy, intellectual property, and antitrust, but they tend to be overlooked because they do not fit into traditional categories such as carriers or end-user service providers.

Today, with the exception of established historical functions such as telephone number assignment, the FCC has no foundation for understanding the policy implications of logical infrastructure. Competition and private self-regulatory bodies may obviate the need for government involvement in many or all of

operate on the principles of "rough consensus and running code". See Brian Carpenter, *Architectural Principles of the Internet*, Network Working Group Request for Comments 1958 (1996), at <http://www.ietf.org/rfc/rfc1958.txt> (last visited Feb. 24, 2002).

94. Esther Dyson, the Chairman of EDventure Holdings, served as the founding chairman of ICANN. The views expressed in this article are solely those of the author and should not be construed as those of Esther Dyson.

95. See Kevin Werbach, *Meta Service Providers: The Internet's SS7 Network*, RELEASE 1.0 (Dec. 1999).

the cases described above, but should those conditions not hold, the FCC will need a way to ensure that logical infrastructure does not become a competitive bottleneck.⁹⁶ Thinking about the problem on its own terms is the best way to start.

3. Applications

The *application* (or service) layer is where most of the functions familiar to end-users appear. Basic voice telephony is an application, as is Internet access, IP telephony, video programming, remote access to corporate local area networks, alarm monitoring and so forth. Much of the existing body of communications regulation appears to concern itself with applications, but in actuality relates more to physical infrastructure.

By and large, applications need not be regulated to ensure competition, so long as the physical and logical infrastructure underneath is open. With open platforms, anyone can build new applications to compete with incumbent providers. Regulatory issues related to applications generally spring from other policy goals. For example, under section 255 of the 1996 Act, providers of telecommunications services must “ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable.”⁹⁷ The FCC also has initiatives to ensure that certain services, including basic telephony and “advanced communications services,”⁹⁸ are available to all Americans. How such rules should be implemented may vary from application to application, but divorcing application-level policies from all-encompassing categories and unrelated infrastructure issues makes it easier to focus on such issues directly.

4. Content

Content, the final layer in the stack, involves the information delivered to and from users as part of the applications running over communications networks. In the U.S., government directly regulates content only in very limited circumstances. For example, the FCC has rules governing indecency on broadcast networks (but not for telecommunications services).⁹⁹ It also seeks

96. The open access debate, at least in part, involves such a question. Cable Internet access services use networks of local caches to enhance performance of their networks, but those caches also give the cable operator the ability to degrade or exclude content from competitors. See Werbach, *supra* note 68.

97. 47 U.S.C. § 255(c) (Supp. V 1999).

98. 47 U.S.C. § 157 (Supp. V 1999).

99. See 18 U.S.C. § 1464 (2000) (prohibiting obscene material on broadcast television, and prohibiting indecent material between 6am and 10pm); 47 C.F.R. § 73.3999 (2001) (FCC rules enforcing the statutory provision).

to ensure a diversity of voices in media, though in practice it seeks to achieve that goal through limits on ownership of multiple media outlets rather than directly.¹⁰⁰ In addition, the FCC has various rules relating to political advertising, and also considers factors such as educational programming in connection with its broadcast license renewals.¹⁰¹ Under “must-carry” rules, cable operators are required to carry over-the-air broadcast channels, but government is not involved in selecting the programming on those channels.¹⁰²

Content-related issues are likely to become more significant in the future due to the Internet’s blurring of category boundaries. Under the horizontal categorization model, telecommunications services generally fall within a “common carrier” framework, meaning that service providers—and government—may not dictate the content users can create. Broadcast and cable services, in contrast, inherently involve content discrimination, because the broadcaster must decide what content to deliver over scarce spectrum. In other words, traditionally we think of telecommunications as two-way and open, while broadcast is one-way and controlled. Internet-based services, however, can exhibit elements of both paradigms. When a user sends an instant message to a friend commenting on a streaming video clip delivered over an Internet-based broadband platform to a digital television set-top box, which paradigm should apply? What happens if the broadband provider, or the government, wants to constrain the content of that instant message? Such questions only make sense if viewed in terms of content rather than categorization.¹⁰³

IV. APPLYING THE LAYERED MODEL

The layered model makes many of the conflicts that today bedevil regulators more tractable. For example, the inconsistency between the treatment of DSL, which is subject to federal open interconnection requirements (under Title II), and cable

100. See, e.g., 47 U.S.C. § 533(c) (Supp. V 1999) (FCC’s authority to prescribe cable cross-ownership rules); 47 C.F.R. § 73.3555 (2001) (broadcast ownership limits).

101. See 47 C.F.R. § 73.1942 (2001) (political advertising rules); Policies and Rules Concerning Children’s Television Programming Revision of Programming Policies For Television Broad. Stations, *Report and Order*, 11 F.C.C.R. 10660 (1996) (adopting new educational programming requirements for broadcast license renewals).

102. See 47 U.S.C. § 534 (Supp. V 1999).

103. Of course, policy-makers and regulators will also consider other factors such as the maturity of the relevant service and the competitive landscape.

modem services, which currently are not, turns out to be a figment of the horizontal model. Both cases involve the possibility that service providers with control over the physical and logical layers of networks will extend that control into applications and content. Looking at the issues through the lens of the layered model does not compel any particular outcome. It may be that the FCC concludes open access is the right policy result, but that in the cable situation market forces will be sufficient to arrive at that result. The important shift is that the focus is now on the key policy issue at stake, rather than the almost accidental context that defines the issue today.

The layered model does not necessarily require wholesale changes in existing rules. In fact, one may view the FCC's basic/enhanced distinction as a partial implementation of a vertically-layered approach. The FCC in effect concluded that, to the extent that the communications and computer-processing layers can be separated, services that reside higher up are less regulated, while those lower down are subject to Title II obligations.¹⁰⁴ The binary distinction embodied in the *Computer II* and *Computer III* decisions and the 1996 Act is not sufficiently fine-grained to address the issues in today's data-centric networks, but it has proved quite resilient given the technological and competitive changes since it was first developed.

A. Open Interfaces

The layered model does more than reframe existing debates. It brings to the surface important issues that tend to become lost under the existing regulatory model. Perhaps the most significant of these is the question of interfaces between layers. A key element of the Internet model is that these interfaces are open.¹⁰⁵ This allows competitors to circumvent a bottleneck at one layer by deploying services over another layer, and prevents companies that have control of lower-level services from prejudicing or precluding certain services at higher layers. Cable open

104. This viewpoint has sometimes been expressed in the notion that information services "ride on the rail" of telecommunications service. *See, e.g.*, Susan Ness, Making Sense, Remarks Before the Policy Summit of The Information Technology Association of America (Mar. 30, 1998), available at <http://www.fcc.gov/Speeches/Ness/spsn807.html> (last visited July 20, 2002).

105. This point is not limited to communications. Openness of interfaces, and the "middleware" between them, is also a central issue in the proposed settlement of the U.S. government's antitrust litigation against Microsoft. *See* United States v. Microsoft Corp., Civil Action No. 98-1232 (CKK), Proposed Final Judgment, §§ (III)(A)(1), (III)(C), available at <http://www.usdoj.gov/atr/cases/f9400/9462.htm?chkpt=zdnnp1tp02> (Nov. 2, 2001).

access can thus be understood as a debate over whether cable operators can use their control of the physical layer (cable distribution plant) to restrict choice and competition at the three higher levels. Another example of this is telephone number portability, mandated under the 1996 Act as a way to ensure that ILECs don't leverage control over logical infrastructure (phone numbers) to prevent competition at the application layer.¹⁰⁶

In the horizontal model, service categories are distinct from one another, and therefore the issue of interfaces does not arise. But in a communications world that will only become more converged and more interconnected, open interfaces are increasingly critical to an innovative, competitive market.

Restrictions on ILEC information services derive from the same separation of service categories. Consequently, their true value is misunderstood. When an ILEC offers an application-level service such as Internet access or voice mail, the competitive issue does not arise from the nature of those services. SBC's Internet access services do not differ in any fundamental technical way from EarthLink's.¹⁰⁷ What is different is that SBC controls lower-level infrastructure which it could use to disadvantage ISP competitors. The ILECs have frequently made the argument that they should be freed from regulation on their data services because these markets are competitive.¹⁰⁸ But this analysis misses the importance of interfaces between layers.

Under the layered model, ILEC data services should be deregulated if and when the FCC can assure itself that ILECs will not be able to leverage lower-level control into these layers. This could happen in one of two ways. If the physical and logical infrastructure layers in the relevant markets were sufficiently competitive, ILECs would not be able to gain unfair advantage over competitors at the application and content layers. Despite many changes in technology and market dynamics since the passage of the 1996 Act, this level of competition does not yet exist in the local exchange market. The second possibility is that the FCC or Congress could adopt rules preventing ILECs from clos-

106. See 47 U.S.C. § 251(b)(2) (Supp. V 1999).

107. There may still be operational differences between services that are technically similar and identically priced. EarthLink, for example, may offer better customer service or more tolerant policies regarding home servers. This represents a policy argument in favor of open access. See Werbach, *supra* note 68.

108. See, e.g., Thomas Tauke, VERIZON COMMUNICATIONS, *Testimony Before the House Energy and Commerce Committee* (Apr. 25, 2001), available at <http://newscenter.verizon.com/policy/broadband>; Thomas Tauke, Verizon Communications, *Speech to the Progress and Freedom Foundation Conference* (Aug. 21, 2001), available at http://broadbandforus.com/news/final_speech082101.html.

ing the interfaces between layers or otherwise constraining higher-level competition. The *Computer II* structural separation requirements and the *Computer III* non-structural safeguards are in effect such rules. The FCC's rules governing collocation and line sharing for DSL services are also in this category.¹⁰⁹

CONCLUSION

The layered model addresses all four of the shortcomings of the current structure in the age of the Internet.¹¹⁰ Focusing on vertical layers removes the assumption that service boundaries are clear, and are tied to physical network boundaries. It implies a more granular analysis within each layer, moving from overarching policy goals to specific cases rather than applying categories that bring with them laundry lists of requirements. It brings the issues of interconnection between networks, and between functional layers within those networks, to the forefront. And it recognizes the significance of network architecture as a determining factor in shaping business dynamics.

This article attempts to outline frameworks and highlight issues, rather than propose specific policy outcomes. More analysis is necessary to understand exactly what a vertically-layered communications policy regime would look like, and how it could best be implemented. The project of redefining communications policy will take many years. It means changing administrative rules and structures, and it may also require new legislation. There is a window of opportunity to create the new regime before the old one comes crashing down. It is an opportunity that we should not miss.

109. See Deployment of Wireline Serv. Offering Advanced Telecomms. Capability and Implementation of the Local Competition Provisions of the Telecomms. Act of 1996, *Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98*, 14 F.C.C.R. 20912 (1999) (line sharing for DSL); Deployment of Wireline Serv. Offering Advanced Telecomms. Capability, *First Report and Order and Further Notice of Proposed Rulemaking*, 14 F.C.C.R. 4761, 4784-85 (1999) (collocation).

110. See *supra* text accompanying note 81.

REFINEMENTS OF A LAYERED MODEL FOR TELECOMMUNICATIONS POLICY

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ABSTRACT

Inconsistencies within the various areas of telecommunications policy make for rich debate. For example, cable Internet service providers are not obligated to provide competing service providers with wholesale pricing for access to customers, while incumbent local exchange providers (specifically regional Bell operating companies) must provide such Internet access. Several authors have proposed models to resolve these inconsistencies; however, efforts to build a better policy mouse-trap continue to elude interested parties. While some claim that the existing title-based approach is not broken (and therefore should not be changed), others argue that the inconsistencies will lead to market distortions and slower deployment of broadband services.

One proposed telecommunications policy model is based on a layered design similar to that used in the development of technical communications protocols. The consistency and modularity of such a policy approach may be a workable alternative to the current title-based policy; however, a layered model in and of itself is insufficient. A layered model solution must reflect the reality of network design, market power, and business arrangements, and, to be viable, it requires a transition policy to get there from the existing policy regime. Policy makers must understand the diversity of existing access technology (e.g., cable networks versus common carrier wireline networks), the disparity within industry segments (e.g., ILEC vs. CLEC use of last mile) and the strong influence of present policy on these various segments before implementing a transition to new policy. In this paper, we propose a framework to serve as the basis for a unified

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layered policy model. We also discuss the difficulty of transitioning from the legacy service and architecture specific model to a generally applied layered model. Our model focuses on the inter-connection relationships among the various players.

INTRODUCTION

Current policy applies regulatory conditions based on the type of infrastructure on which a telecommunications service is offered. For example, under the Telecommunications Act of 1996 (1996 Act),¹ Title VI regulates cable networks² and Title II regulates wireline telephone networks as common carriers.³ This model results in inconsistent treatment for providers of the same service if they use different networks. These inconsistencies have motivated several authors to suggest alternative regulatory models that would better serve public policy.⁴ They are concerned that policy inconsistencies will lead to problems such as market distortions, slower deployment of broadband services, discriminatory bundling, and discriminatory content decisions. Some authors argue for a regulatory model based on the layered protocol concept.⁵ Others focus on market power, rather than service provisioning, as an appropriate threshold for invoking regulatory obligations.⁶ Still other authors argue that the ex-

1. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified in scattered sections of 15, 18 and 47 U.S.C.) [hereinafter 1996 Act]. The 1996 Act amended the Communications Act of 1934, Pub. L. No. 73-416, 48 Stat. 1064 (codified as amended at 47 U.S.C. §§ 151-614 (2000), and scattered sections of 47 U.S.C.) [hereinafter Communications Act].

2. See 47 U.S.C. §§ 521-73 (2000).

3. See 47 U.S.C. §§ 201-76 (2000).

4. See F.M. Bar, *Configuring the Telecommunications Infrastructure for the Computer Age: The Economics of Network Control* (1990) (unpublished Ph.D. thesis, University of California, Berkeley); D.C. Sicker, J. Mindel, & C. Cooper, *THE INTERNET INTERCONNECTION CONUNDRUM* (unpublished FCC working paper, 1999); Kevin Werbach, *A Layered Model for Internet Policy, The Regulation of Information Platforms*, 1 J. TELECOMMS. & HIGH TECH. L. 37 (2002); Jonathan Weinberg, *The Internet and Telecommunications Services, Universal Service Mechanisms, Access Charges and Other Flotsam of the Regulatory System*, Telecommunications Policy Research Conference (1998), available at <http://www.law.wayne.edu/weinberg/FLOTSAM.a04.PDF>.

5. A protocol defines a language of rules and conventions for communications between entities. Communications protocols are defined as a series of layers, which together provide the means for communications on networks. Layers allow for modularity of design. This allows functions to be divided into well-defined and manageable tasks.

6. M.A. Sirbu. & J. Mindel, *New Regulatory Categories in the Age of Convergence*, Next-Generation Internet Policy Workshop, European Commission, Brussels (Sept. 16-17, 1999), available at <http://www.gip.org/publications/papers/ngibrusselsreport.asp>.

isting title-based approach is not broken, and therefore should not be changed.⁷

This paper focuses on the viability of the layered regulatory model approach. While, at first, a layered approach seems well founded in and of itself (i.e., based on well understood engineering principles), it can be plagued by numerous shortcomings. Many of the problems have to do with defining the details of the model and the concepts used to describe this model. Concepts like *openness* and *interface* must be well defined before implementing a viable model; otherwise failures might arise in the nascent competitive communications landscape. Such failures could lead to industry consolidation, which could derail the market-driven competitive environment envisioned in the Telecommunications Act of 1996.⁸ Further, it may derail the inter-modal competition that appears to be driving deployment in the present marketplace.⁹ While a better understanding of the details is necessary, one can get lost in the details as well. Over-specification could inadvertently stall the process or be used as a tool to forestall change.

This paper concludes that a consistently applied layered model is indeed a desirable long-term solution, and addresses the concomitant need to define a transition strategy. The strategy will involve shifting policy from the present complex and diverse structure of title-based regulation toward that of a simplified and unified policy. A successful long-term model must recognize the importance of market power and it must maintain a high degree of technical neutrality.

This paper investigates the groundwork necessary for re-vamping telecommunications policy and proposes a framework for a solution. It focuses on the complexities and interdependencies that will affect the transition to a layered policy model, beginning, in Section I, by setting forth the existing regulatory structure and its shortfalls. Section II explores the issues and competing goals that legislators and regulators will have to consider prior to creating an effective new regulatory model. Specifically, it discusses the shortcomings of some proposed layered models, the difficulty in defining the layers and interfaces re-

7. See JASON OXMAN, THE FCC AND THE UNREGULATION OF THE INTERNET (FCC, OPP Working Paper No. 31, July 1999), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp31.pdf.

8. See 1996 Act, *supra* note 1.

9. See Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1996, *Report and Order and Further Notice of Inquiry*, 16 F.C.C.R. 6417 (1999).

quired of such a model, and the problems that might arise by using vague (or misinterpreted) terms, such as openness, layers, and interfaces. This section also proposes a conceptual framework for understanding interconnection relationships as the basis for a unified layered policy model, and discusses the difficulty of transitioning from the legacy service and architecture specific model to a generally applied layered model.

I. THE ISSUES

The existing policy is one of service/infrastructure specific regulation. The model applies regulatory conditions based on the type of infrastructure on which the service is offered. For example, the Communications Act regulates cable networks under Title VI and wire-lined telephone under the Title II.

The 1996 Act directed the Federal Communications Commission (FCC) to shift to a less regulatory environment. Part of this shift included moving to a market approach rather than relying on the burdensome common carrier policy now in place. Before market mechanisms can operate, however, there must be a sufficiently competitive market environment. Legislators and regulators hoped that alternative providers would be available in adequate numbers to ensure reasonable levels of competition. The government continues to invest significant regulatory effort toward opening the public switched telephone network (PSTN) to competition.¹⁰ Time will tell whether FCC efforts will improve local telephone competition.

In spite of its high aspirations, the 1996 Act failed to provide significant reform or to significantly increase competition in telecommunications access services. This paper argues that this is because the law continues to address competition along the traditional lines of communications, with different rules applying to each physical infrastructure type. The 1996 Act provides little guidance for accommodating evolving telecommunications infrastructures that are blurring the boundaries between existing industries. One cause of this blurring is that the *information services* sector of the marketplace is not simply a layer of ser-

10. The *First Local Competition Order* put forth by the Commission in 1996 was more than 700 pages long. See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, *First Report and Order*, 11 F.C.C.R. 15499 (1996). Many regulatory steps have been taken, including efforts in local number portability, dial parity, collocation, line sharing and more.

vices; it is becoming a form of telecommunications itself.¹¹ Although national Internet Protocol (IP) backbone service (or IP transport service¹²) is considered an *information service* from a regulatory perspective, one may argue that an Internet service is “telecommunications,” i.e., the “transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received.”¹³

Some argue for classifying IP backbone service as a telecommunications service in order to level the playing field with respect to regulatory benefits and burdens on similar transmission services. It would not be a simple task, however, to reclassify IP backbone service as a telecommunications service. The rationale behind many of the interconnection obligations associated with the telecommunications classification is tied to the technology, and would not be directly applicable to IP transport services.¹⁴ In addition to the detailed (and therefore legally-intensive) interpretations that would be required to reclassify IP transport as a telecommunications service, federal policy makers may also be hesitant because this action would expose reclassified national IP backbone service providers to state obligations. States have the authority to regulate telecommunications services to the extent that the FCC does not assert jurisdiction under the Communications Act.¹⁵

Policy makers have been hesitant to impose additional regulation on national IP backbone service providers, fearing that premature or misguided regulation might frustrate the rapid rate of technological innovation.¹⁶ In addition, forcing the Internet into the current categorized regulatory structure leads to

11. 47 U.S.C. § 153 (2000). The 1996 Act differentiates between information and telecommunications services as a mechanism to accommodate certain services that Congress wanted to keep relatively free from regulation.

12. An IP transport service is defined as the connectionless data delivery service offered by IP packet-routed networks.

13. 47 U.S.C. § 153 (43) (2000).

14. At least one study has done a detailed analysis of the interconnection obligations (and benefits) that would be triggered by such a reclassification, and suggests which of them are suitable for the provision of IP backbone services. See J.L. Mindel & M.A. Sirbu, *Regulatory Treatment of IP Transport Services*, in COMMUNICATIONS POLICY IN TRANSITION: THE INTERNET AND BEYOND 59 (B.M. Compaine & S. Greenstein eds., 2001).

15. State regulators cannot act under a provision of the statute if the FCC has decided to forbear from acting. 47 U.S.C. 160(e) (2000).

16. Consider the optical control plane standards now emerging. Future interconnection policy issues between national backbone providers will vary depending on the particular set of competing standards that is ultimately adopted and deployed by the industry.

complex and inconsistent solutions. This is not to say that such decision-making has not been in the public's best interest, but rather that it generates contrived justifications for decisions that are then difficult to defend in the courts.

Another shortcoming of the 1996 Act is that it may not provide sufficient direction to industry, local and state regulators or the public. The parties involved in regulating and providing telecommunications would benefit from direction set forth in explicit guidelines. Such a mechanism might include title (e.g., Title II, III and VI) independent guidelines for the interconnection of packet networks. In addition, providing a mechanism for cooperation may be better for promoting goals than the current scheme of penalizing industry participants for violating policies (poorly articulated policies at that). Whatever role policy makers assume, it is essential that this involvement takes a forward-looking perspective and departs from the existing title specific regulation.

It is important to note that providing sufficient policy direction need not imply regulation; policy and regulation are not equivalent. Regulation is but one of several mechanisms used to implement telecommunications policy. Without developing a coherent telecommunications policy and plan to ensure the achievement of its goals, it is no more sensible to proclaim regulation than it is to proclaim deregulation.¹⁷

The Computer Inquires established a useful precedent for justifying a transport layer separate from those that ride on it.¹⁸ However, neither the Computer Inquiries nor the 1996 Act truly set the stage for a unified layered model. While one could argue that things like the Open Network Architecture and aspects of the 1996 Act are in the spirit of a layered model, they fall short of providing a complete framework. Even with the separation of

17. It is a common misconception that the Internet is completely unregulated today. In fact, parts of it are regulated. For example, many of the underlying telecommunications circuits upon which the Internet runs are provided by regulated telecommunications service providers. Further, decisions not to impose "open access" on the cable industry represent policy making in the negative sense, by way of deciding not to regulate. A related misconception is that the Commission has no authority with respect to information service providers, such as Internet Service Providers (ISPs). The Commission explicitly acted on behalf of ISPs in its decisions to exempt ISPs from access charges. See OXMAN, *supra* note 7.

18. See generally, Robert Cannon, *The Legacy of the FCC's Computer Inquiries: 35 Years of Unregulation*, WASHINGTON INTERNET PROJECT, at www.cybertelecom.org. For more on the first Computer Inquiry, see Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities, *Notice of Inquiry*, 7 F.C.C.2d 11 (1966) [hereinafter Computer Inquiry].

basic (telecommunications) from enhanced (information) services, there is nothing to provide the proper guidance on emerging services or the interconnection issues that will arise. Further, we contend that this past regulatory framework has been misapplied, which has led to some of the discrepancies we see today.

II. TOWARD A SOLUTION

A. *Before the Debate Begins*

A major difficulty with moving to any new policy model is in understanding the depth and scope of the problem. In other words, “the devil is in the details.” This section addresses some of these details. It does not purport to ask all of the relevant questions; it only tries to demonstrate the complexity of the task. It begins by considering the definition of the term *openness*. Then it considers openness issues in the context of *layers* and *interfaces*. Lastly, it considers the crux of the problem: the *transition* from the existing service/infrastructure specific regulation to that of a layered model.

The intention is to avoid getting mired in the details, and to avoid defining a solution so stringent that it is unworkable. Rather, we attempt to define the concept of openness in such a way as to provide a roadmap for policy makers and policy thinkers.

1. Defining Openness

The term “openness” is commonly used by policy makers and others without considering its meaning or even the consequence of its use. Openness can be defined at so many levels and with such varying degrees that the term often causes confusion and disagreement. Therefore, without further definition and specification, the term openness is arbitrary and really a matter of perspective.

There are many aspects of telecommunications that might be considered within the definition of openness. These include:

- Open standards¹⁹
- Open architectures²⁰
- Open interconnection²¹

19. These standards are developed in a process that incorporates input from a wide range of interested parties.

20. Architecture is modular enough to accommodate updates to one component without requiring updates to interfaces or other components.

21. Interconnection is technically possible and economically feasible.

- Open interoperability²²
- Open directories²³
- Open application²⁴
- Open code²⁵
- Open content²⁶

Each of the examples above could be further broken down into considerations such as the degree of openness and the availability of the element and the pricing of that element. Policy makers who seek openness need to specify the kind of openness they seek. The preferred type of openness depends on the desired policy goals. Without adequate specificity, policy makers run the risk of derailing the desired effects of their policy changes. Later subsections will elaborate on these points. In defining what to open, policy makers should take care to consider how this change will impact the competitive nature of the particular market.

With respect to traditional telecommunications systems, policy makers have long wrestled with the issue of what elements of the communications system to open and how to accomplish this.²⁷ One recent example is the opening of the incumbent local exchange carriers' (ILECs') local telephone networks to competitive local exchange carriers (CLECs) as permitted by Section 271 of the 1996 Act.²⁸ ILECs may have an incentive to allow local competition because, in order for ILECs to gain entry into the long distance market, they must prove that they are providing specific competitive opportunities for CLECs.²⁹ Much of this proof has boiled down to the availability of interfaces required for CLECs to make use of ILECs' networks. While some CLECs have been successful at gaining access, the process of opening local markets has been long and protracted.³⁰ It might be that

22. System is interoperable with those systems implemented using another vendors' technology; this is closely related to standards.

23. Directories are accessible to potential competitors for reading and modifying, subject to legitimate authentication and payment procedures.

24. This represents common standards for the integration of software applications. This may include APIs within a framework, or the framework itself.

25. Source code is publicly available; open code does not imply that code is free or intellectual copyright restrictions do not apply.

26. Content is accessible to all users of the Internet. Content is not inside a walled-garden. This does not imply that content is free.

27. See 47 U.S.C. § 271 (2000) (This represents Congress' most recent attempt).

28. See *id.* at (a) and (c)(A) (Section 271 provides that a Bell operating company may not provide interLATA (long distance) services unless it provides access and interconnection to its network facilities to a competing provider).

29. See *id.* at (c)(2) (specific interconnection requirements).

30. Consider the time and effort exerted by all sides (incumbent carriers, competitors, Federal and State regulators) in the § 271 application process.

the proper (or sufficient) incentives were not in place to ensure negotiation of competitive access.

The predominant modern example of a successful open telecommunications system is the Internet.³¹ Many scholars argue that the success of the Internet is, in large part, due to its open design, and that the open design allowed the Internet to grow in so many directions so quickly. The Internet remains open because no single entity controls it. There are aspects of the Internet that are less open than others, such as certain access networks, certain content, and the interconnection of certain IP backbone providers' networks. Control over the resource is the pivotal issue in each of these areas. If a party has a proprietary interest in the network, for example, it is unlikely that the network will be open to all users. In general, however, the Internet remains open to new players, new services, new access schemes and other new opportunities.

It is worth mentioning that it is all too easy to comprehend the openness of the Internet, but it is difficult to map this openness onto business and architectural models in the current regulatory model. This leads to the solution proposed in this paper; that implementation of open systems requires an entirely new, layered framework.

2. Concerns About Layered Models

a) *Defining the Layers*

As described briefly above, and more fully later, a layered model is often the structural basis proposed for substantial regulatory reform. To understand the basic layered model theory, it is necessary to understand the concept of a protocol. A protocol defines a language of rules and conventions for communications between entities. A series of layers define the communications protocols, which together provide the means for communications on networks. Layers allow for modularity of design, which in turn allows functions to be divided into well-defined and manageable tasks. The idea of a layered model for protocol design is not something unique to the Internet protocols.³² What is argua-

31. See J.H. Saltzer, D.P. Reed & D.D. Clark, *End-to-End Arguments in System Design*, available at <http://www.reed.com/Papers/EndtoEnd.html> (1984); David Clark & Marjorie Blumenthal, *Rethinking the Design of the Internet: The End-to-End Argument vs. the Brave New World*, in COMMUNICATIONS POLICY IN TRANSITION: THE INTERNET AND BEYOND 91 (B.M. Compaine & S. Greenstein eds., 2001), available at <http://www.tprc.org/abstracts00/rethinking.pdf>.

32. Most modern telecommunications protocols have layered protocols. For example, the voice network operates on a layered model.

bly unique to the Internet is that most protocols are developed through an open, market-driven standards process.

The model proposed by Werbach specifies four layers: physical, logical, application and content.³³ The model proposed by Lessig contains three layers: the physical, the code and the application.³⁴ Other models have specified a similar layering. While these proposed structures create boundaries, they may inadvertently combine aspects of communication that technology and business divide. Some models combine the various access and transport networks into a single layer (the physical), something that does not line up well with existing network architectures, business models or regulatory models.³⁵ Further, combining the different access methods, which differ in terms of technology, ownership and business, could inadvertently lead to technology lock-in.

Another concern is the use of the terms “logical” or “code” layers. These layers are defined in terms of the protocols and the instantiation of software. In the case of the “logical” layer, Werbach describes this as the protocol or a standards layer, which seems ill-conceived in that all of these layers involve protocols or standards. The “code” layer is described in terms of software, but the software is simply the tool used to invoke the requirements of the various layers. It seems that “code” should not be defined as a layer, rather as a principle - as in “open source code.” In this way the virtues of open (or closed) source code could be considered without tying it to the regulation.

While in the long run it may be appropriate to create a layer that serves as an abstraction of the IP service (the “logical” or the “code” layer discussed above), this approach also creates problems. It is likely that the owner of the physical and the logical network will be one. If the logical layer is lightly regulated, this owner may be able to take advantage of this light regulation together with control of the physical network to thwart competition. It is difficult to apply a unifying policy model to the existing networks, services and content because one may be forced to assume (or abstract) away so many technological, policy and economic considerations that it is impossible to create policy that aligns with economic and business reality. A workable solution

33. Werbach, *supra* note 4.

34. LAWRENCE LESSIG, *THE FUTURE OF IDEAS* 23 (2001).

35. See PATRICK DEGRABA, *BILL AND KEEP AT THE CENTRAL OFFICE AS THE EFFICIENT INTERCONNECTION REGIME*, (FCC, OPP Working Paper No. 33, Dec. 2000), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp33.pdf.

must take care in defining the layers in a manner that aligns with these needs.

We believe that a better model would subdivide the physical layer in terms of access and backbone, as well as in terms of who provides the service. As described later, one could differentiate the physical players on a basis of market power, not on the basis of network type. Applications will depend on the services of the physical layers.³⁶

b) Regulating Layers

Once defined, the layers will require regulatory constraints. These decisions will likely be a coordinated effort of government, industry and other interested parties. With this close cooperation between government and industry, the FCC might consider how best to develop this relationship through measures such as Section 256 of the Communications Act.³⁷ This Section gives the FCC authority to participate in industry standards-setting organizations for development of interconnectivity standards.³⁸ If we move toward a layered regulatory model, policy makers may need to rely more on groups typically outside of the regulatory process (such as standards bodies) to assist in this effort. Even within a layer, the government will need to rely on various standards bodies. Policy makers should seek assistance from the Institute of Electrical and Electronics Engineers committees for developing network standards (e.g., the IEEE 802 Committee)³⁹ and CableLabs, a non-profit research and development consortium of cable television system operators.⁴⁰ These bodies created many of the access standards on which IP-based services ride.⁴¹

c) Ensuring Competition in a Layer

Control of any layer could create problems. Serious problems arise when a dominant provider can assert their control of multiple layers or combine their layers with those of other

36. For example, an application like voice might need quality of service capabilities from the physical layer and naming/numbering from other application layers. Layer interaction and layer dependency will become an important issue should we embrace a layered model of regulation.

37. 47 U.S.C. § 256 (2000).

38. *See id.* at (b)(2).

39. *See IEEE 802 Working Group Home Page*, IEEE at <http://grouper.ieee.org/groups/802/dots.html> (last visited Aug. 15, 2002).

40. *See Cable Labs Home Page*, CABLE LABS at <http://www.cablelabs.com> (last visited Aug. 15, 2002) (under current projects).

41. While the Internet Engineering Task Force (IETF) is responsible for Internet specifications, we view this as outside the scope of access technology.

providers in an exclusionary and anticompetitive manner. For example, a party in control of the physical layer may technically open it to competitors, but charge so much for access to the network that competitors cannot afford to compete. While it may not be popular to embrace regulatory pricing models,⁴² they may be a necessity. Without competition or regulation, it is difficult to believe that a dominant player would allow their profits to erode by allowing a competitor low cost access. These players are trying to create value for their stockholders, and are therefore motivated to make it harder for competitors to compete.

In addition to price regulation, two other regulatory methods may encourage competition at the physical level. First, business incentives can encourage open access at other levels. For example, access networks (be it telecommunications, cable or other) could be separate from the services riding over them (voice, data, video), which could be separate from the content.⁴³ This would prevent the physical network providers from exclusively carrying their own services and content, and eliminate discrimination against other service and content providers. Second, encouraging inter-modal competition by permitting “closed” physical facilities might invigorate deployment and technological progress. One could argue that it is the “closed” aspect of cable that is driving broadband deployment and emergent broadband services. In other words, let the big players fight it out. One might argue that even though (initially) the physical network owners will have monopolies, they will have the incentive to use their networks to provide new, overlapping services.⁴⁴ Note, that the authors are not necessarily advocating this closed model.

One extension of the layered model of policy is the layered model of ownership and separation between the various business segments. Preventing owners from exercising control in more

42. See DEGRABA, *supra* note 35.

43. See Letter from Roy L Morris, US ONE, to Reed Hundt, Chairman, FCC, Recommendation for Commission Actions Critical to the Promotion of Efficient Local Exchange Competition, (Aug. 11, 1997) at <http://members.aol.com/RoyM11/LoopCo/LoopCoLetter.html> [hereinafter Letter].

44. See REED HUNDT, *YOU SAY YOU WANT A REVOLUTION: A STORY OF INFORMATION AGE POLITICS* (2000). The former Chairman of the FCC contends:

Behind the existing rules, however, were two unwritten principles. First, by separating industries through regulation, government provided a balance of power in which each industry could be set against one another in order for elected figures to raise money from the different camps that sought advantageous regulation. Second, by protecting monopolies, the Commission could essentially guarantee that no communications businesses would fail. Repealing these implicit rules was a far less facile affair than promoting competition.

Id., at 14.

than one layer avoids the problems of vertical control. There are many examples of this policy, including the divestiture of the Bell System and the LoopCo model.⁴⁵ In the past, such divisions have included everything from complete divestiture of services to separate accounting mechanisms. The most relevant to this discussion would be the divestiture of the ILECs local loop. Faulhaber has shown that such a divestiture would have created a better model for local competition than the unbundled model imposed by the 96 Act.⁴⁶ This paper does not delve into the pros and cons of separating ownership of physical layers, but suffice it to say this policy would be difficult to carry out.

While separating layer ownership resolves a number of competitive concerns, it also creates other policy concerns. Some would argue that such separation would discourage investment and lead to further delays in the roll out of broadband services. In addition, the incumbent companies have spent a great deal of money and time trying to combine various layers, and are not likely to accept separation of layer ownership without a fight. A number of recent mergers have been based on the desire to combine content and conduit.⁴⁷ The approval of these mergers might suggest that such separation is not of interest to the policy makers.⁴⁸

3. Concerns About Interfaces

a) *Defining Interfaces*

Implementation of a layered model requires an understanding and definition of the interfaces between the technical layers. This is no trivial matter. Not only is it difficult to define an interface, but the interface requirements will differ as one traverses the stack of layers. In other words, the interface requirements that exist between lower layers will not resemble

45. See Letter, *supra* note 43. The LoopCo model advanced in the Letter proposed that each of the incumbent LEC networks be divested into two companies – one that would provide the local loop from the central office out to the customer and one that would provide the switching and other services. *Id.* The idea being that the loop company would not be inclined to treat competitive providers of the switching and other services in an anticompetitive manner.

46. Gerald R. Faulhaber, *Policy-Induced Competition: The Telecommunications Experiments*, available at <http://rider.wharton.upenn.edu/~faulhabe/PolicyInduced%20Competition.pdf> (Aug. 26, 2001).

47. See America Online, Inc. and Time Warner Inc., *Complaint*, 2000 F.T.C. Lexis 170 (2000).

48. See *id.*; see also Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Telecommunications, Inc., Transferor to AT&T Corp., Transferee, *Memorandum Opinion and Order*, 14 F.C.C.R. 3160 (1999).

the interface requirements that might exist between higher layers. Further, the definitions of interfaces must be able to stand the test of time as technology, services and business models change.

Depending on the layer, an interface can vary significantly. An interface might require technical specifications or it might require a business contract defining the availability of content (e.g., digital rights management). When computer scientists or electrical engineers define an interface, the outcome is highly dependent on the layer of concern – a physical interface will include such specifications as electrical, mechanical and functional characteristics; whereas a logical interface may require a definition of addresses, ports or other information. An interface between the application and the content would likely take the form of a contract specifying content use.

As we move up a layered policy stack (from physical to content layer), we find ourselves moving from technical-oriented to more business-oriented specifications. This abstraction is expected, as the interface between the content layer and the application layer would have less technical requirements but would be dominated by policy; whereas the interface between the access network and the inter-network would require more technical specification.

One significant and difficult issue in defining interfaces is deciding how much detail to include in interface regulation. While an actual technical specification will be highly detailed, a policy might be more general in order to ensure that the proper goals are promoted while the policy withstands technological progress. Policy references to standards organizations' specifications could provide the technical level of specification, while contract law could provide the legal obligations. Thus, technical and legal specifications could change with technical and legal advances, without having to rewrite the policy itself. We believe that policy makers should tread lightly in this area, and act only as warranted by policy.

b) The Effect of Technology on Defining Interfaces

The sub-classification of layers within the physical network, suggested above, may be necessary to make a layered model operational with respect to interfaces. Some of the variation that exists among the lower layers of the various access technologies relates to the media (e.g., over-the-air versus cable versus copper pair), other variation relates to the data link layer required to make use of the physical media (e.g., share radio spectrum, a

shared wire, a dedicated wire). These technologies differ in ways that make it difficult to compare them.⁴⁹

The method of providing real-time services varies with the physical implementation of the underlying infrastructure. Real-time services demand a specific, or at a least guaranteed-minimum, quality of service (QoS). The technology (e.g., QoS, traffic engineering) used to provide this quality of service resides on different layers. This technological straddling of the layers suggests some of the difficulties that policy makers will have in drawing clear regulatory boundaries between technological layers.

Voice will remain the most critical service/application. Since the majority of voice customers will remain on the circuit-switched network for some time, it is important that interconnection to the PSTN is available to all consumers. Therefore, it is not enough to know how to interconnect (as defined by the appropriate interfaces), but one must also be able to obtain the physical interconnection with the PSTN.

A very important point to consider is that no matter how the layers are divided, if two players are going to interconnect their networks, this connection comes down to a physical (or a logical) interconnection. This point cannot be over-emphasized. Thus, even if the layers are described and divided in some ingenious manner, the physical interconnection must be created. Interconnection simply cannot be ignored.

c) Interface Availability

The issue of interface availability is complex and highly dependent on who controls the resources. If a monopoly (or duopoly) provider exists, then it is unlikely that we can move toward a layered model without significant regulatory structures in place, be that legacy or new regulation.

4. Clarifying and Unifying the Policy

a) Clarifying the Goals

Telecommunications policy is largely based on public policy goals. Legislators and regulators contemplate a certain set of goals (either implicitly or explicitly) and they create telecommunications law according to the methods deemed most appropriate

49. Providing a “raw” connection to the Internet makes many assumptions about the design of a network and the functionality required to provide that “raw” connection. The notion of a raw bit pipe assumes away many of the functions that must be performed in certain architectures in order to provide a service.

to achieve these goals. In order to interpret the implications of the emerging networks for telecommunications policy, it is important to first understand the goals upon which the policies are based. Depending on a stakeholder's perspective, the relative importance of policy goals will vary. Public policy goals may include: ubiquity of service availability, free flow of information, non-discrimination in the carriage of information, cost-based prices (i.e., no monopoly rents), efficient use of public goods (e.g., over-the-air spectrum, right-of-way), rapid deployment of advanced services, and appropriate investment signals. Stakeholders include policy makers (such as Congress, the FCC and the state Public Utility Commissions), industry players, academics, consumer groups, the public, etc.

Once the goals are resolved, the government traditionally takes one of three broad approaches to achieve telecommunications policy goals; they are as follows:

- *Setting market rules to achieve economic goals.* For example: 1) managing accumulation of market power via merger reviews and antitrust proceedings; 2) requiring resale and unbundling to reduce the barriers to entry for new competitors; 3) requiring that telecommunications carriers interconnect with all players to reduce barriers to entry; 4) regulation of prices when market forces are absent due to perceived natural monopolies; and 5) ensuring separation to prevent a monopoly from subsidizing a competitive business segment with excess profits generated from a monopoly business segment.
- *Supporting societal goals.* For example: 1) requiring that all telecommunications carriers pay into the USF to subsidize communications access for selected groups of U.S. residents and organizations; 2) requiring that telecommunications carriers not discriminate; and 3) fostering interconnection.
- *Investment in public initiatives.* For example, by funding the NSFnet backbone network (1985 to 1995), the government directly invested in public initiatives; i.e., the education research infrastructure. This investment also (indirectly) encouraged innovation by providing a network infrastructure upon which new services could be developed, tested and deployed.

b) Defining a Unified Policy

Creation of a sustainable and unified theory for telecommunications policy will require agreement on a basic set of goals. The intent of telecommunications reform should be to create an environment that promotes general policy goals. A new set of laws and regulations must primarily promote ubiquity, nondis-

crimination and rapid deployment of advanced services. Unfortunately, these goals often conflict with one another; therefore, they will require efforts to achieve balance. For example, consider the dilemma created by the 1996 Act, which requires the FCC to ensure that advanced services are deployed *rapidly* and to *all* Americans,⁵⁰ posing market efficiencies (rapid deployment) against incompatible societal goals (universal service). While taking advantage of market forces to ensure timely deployment, regulations must simultaneously provide constraint to ensure competition and to spread deployment widely.

Introduction of a layered policy model should support the market principles sought after in the 1996 Act. FCC policy should ensure that interconnection is not destroyed or disabled by distortions in the market. Transitioning to a market driven model is not a simple matter; it involves much more than dismissing the current regulatory model, and then blindly relying on the market. A number of concerns surround interconnection in a market-based approach. The most prominent concern is the dominant control of an essential service. This is especially true now that the FCC has placed great emphasis on reactive measures (such as enforcement of rules, contract law and antitrust actions), and depends less on traditional, proactive (i.e., regulatory) measures. This may result in a slow-to-respond process that can lead to market distortions. The trick is to encourage interconnection while not imposing burdensome regulations on network providers.

To begin a transition to a market-based approach to telecommunications policy, policy makers should consider their decision-making process in a more comprehensive cross-title manner. This is indeed what occurred in the notice of inquiry (NOI) on high-speed access mentioned previously, where the inquiry considered multiple forms of high speed access, each of which regulated under a different title. Regulators should move away from complex and overly defined regulatory solutions and toward more basic solutions based on key policy goals. While the structure of the Communications Act is flawed, its policy goals, explicit or not, should remain the ultimate basis for decision-making. The main advantage of a layered policy approach is that it creates a level playing field for regulated entities and services, avoiding inconsistencies. While this may appear desirable, it is important to recognize that the present regulatory structure allows policy makers to make decisions separately with respect to

50. See 47 U.S.C. § 706 (2000).

each market (telecommunications, cable, wireless) without concern for what this might mean for the others.⁵¹ If the policy makers had to create policy that spanned all technologies, it might create an intractable problem due to the huge number of variables to consider. One might say that the solution to this problem is to consider a subset of the layers, each containing a smaller set of variables, and indeed this paper argues that this is the long-term solution.

B. Proposed Solution

Some analysts argue that ensuring the continued openness of the Internet is the best way to ultimately avoid the problems of the current regulatory approach.⁵² The Internet may take over as the common platform for all telecommunications, in which case its open character will be pervasive. This requires regulations that protect the open aspects of the Internet. This openness could erode if dominant players exert pressure in the access networks or backbone networks, or within the operating system software, services or content. While policy makers should create policy that protects the “openness” of the Internet, they should take care not to create policy that is specific to the technology. This paper proposes that the best course for communications regulation is continued vigilance in maintaining the Internet’s openness. This does not necessarily translate to heavy-handed or haphazard regulation; it requires careful consideration of regulatory proposals.

1. Framework for a Solution

As indicated earlier, defining openness will require a significant understanding of the technical, policy and pricing requirements. To define openness, one must consider the aspects of the desired policy layer or interface and what is required to provide a service or function. This is no easy task, especially when complicated by conflicting policy goals. As previously indicated, not only should a new regulatory model provide more relevant delineation within the layers, it should also take into account other technology, business and policy issues. These issues drive the concept to a more dimensional layer of stacks, a model which assists in the understanding of the differences of access networks and transport networks.

51. See 1996 Act, *supra* note 1.

52. MICHAEL KENDE, THE DIGITAL HANDSHAKE: CONNECTING INTERNET BACKBONES (FCC, OPP Working Paper No. 32, Sept. 2000), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp32.pdf.

This paper does not intend to create new telecommunications policy; rather, it provides a framework for policy makers to apply when considering new regulation. Framing the problems in a logical and consistent manner is a necessary precursor to contemplating the details of the policy.

As previously noted, several authors suggest a regulatory model based on the open concepts of the TCP/IP protocol suite. While it is true that the IP protocol (and the associated TCP/IP protocol suite) serves as a common and open protocol for many communications services, these specifications deal only with the technical characteristics of the protocol and not the business or policy characteristics. It is also worth considering the diversity of access protocol layers beneath TCP/IP; e.g., Ethernet, 802.11, ATM, GigE. This latter distinction is important to consider as some of the most contentious policy battles revolve around the access networks.⁵³

To define the layers correctly, one must consider the services provided and the structure of the network. In previous unpublished work,⁵⁴ the authors proposed a conceptual framework based on service and network structure. This framework should allow policy makers to systematically evaluate interconnection relationships between providers. The layers distinguish between types of physical services (e.g., access, transport), application services (e.g., directories, caching, electronic mail), content services, and Legacy Telecommunications Services (i.e. traditional PSTN telephony). These categories are further described below:

- *Physical services*: Providers of 1) Access and 2) Transport Services; including both best-effort and QoS services. These may include network operators, network access point (NAP) operators and GigaPOPs.⁵⁵
- *Applications services*: Providers of application services that rely on underlying access and transport services can be further subdivided into three subcategories: 1) directory service providers (e.g., DNS); 2) intermediate or middle service providers (e.g., multicasting and caching); and 3) end user service providers (e.g., electronic mail, Web hosting, Search engines). One could argue that these three subcategories are distinct and should be treated as

53. See Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, *Notice of Inquiry*, 15 F.C.C.R. 19287 (2000) [hereinafter *Open Access NOI*].

54. Sicker, *supra* note 4.

55. A GigaPOP, unlike a NAP, is a layer three interconnection point that allows for aggregation of resources and access to services in a cost effective manner.

such, but this broad categorization is sufficient for this context. The point is to distinguish between the provision of a data delivery service and the entities that use the data delivery service. The specific interconnection differences that arise for each of these three subcategories are beyond the scope of this paper.

- *Content*: Content providers that rely on underlying transport, access, application-directory, and application-intermediate services. Examples of content include video, music, and telephony services.
- *Legacy telecommunications services*: Telecommunications service providers as generally defined in the Communications Act.

One could also argue that software developers and consumers are also crucial to the deployment and use of the infrastructure, and should therefore be included in the framework. Software developers are not, however, generally subject to telecommunications policy today.⁵⁶ Services and service providers tend to be of concern, rather than those parties that actually develop the services on behalf of the service providers. Consumer benefits and costs are central motivating factors in telecommunications policy, but since they are not directly associated with interconnection of provider networks, they are also beyond the scope of this interconnection analysis. This paper refers to the heterogeneous group of providers that provide the emerging IP infrastructure (i.e., Access providers, Transport providers, Applications service providers, and Content providers) as Internet service providers. As mentioned earlier, some view the separation of the IP service from the physical transport as a beneficial distinction; we do not make that distinction in this model.

This layered stack provides a framework for systematic evaluation of the interconnection relationships between the layers. From the perspective of interconnection policy, the most important provider relationships are:

- *A - Access Provider to Access Provider*
- *B - Access Provider to Transport Provider*
- *C - Transport Provider to Transport Provider*
- *D - Transport Provider to Application Service Provider*
- *E - Application Service Provider to Application Service Provider*

56. Although they are subject to Section 255 (Disability) of the Communications Act, 47 U.S.C. § 255 (2000) and the Communications Assistance to Law Enforcement Act (CALEA), 47 U.S.C. § 1002 (2000).

- *F* - Application Service Provider to Content Service Provider
- *G* - Internet Service Providers to Telecommunications Service Provider

Relationships A through F are depicted in Figure 1.

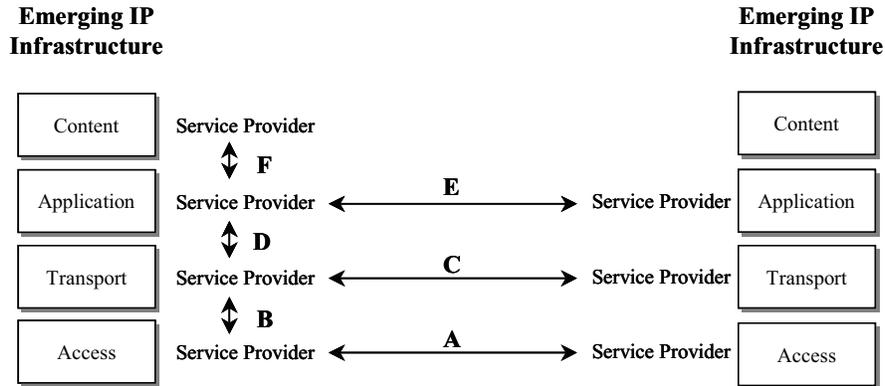


Figure 1-Relationships between Infrastructure Service Providers

Figure 1 shows a conceptual (simplified) protocol stack that providers of IP infrastructure might employ. From a telecommunications policy perspective – and the perspective of this paper in particular – these layers are of primary interest. For example, a transport provider will use applications on their network, but since they offer the transport service to the public for a fee, the transport is the service of interest. Similarly, a caching provider will employ an Intranet to interconnect their caches, and to connect their caches to the public transport network. Since they offer the caching service to the public for a fee, caching is of interest, not their private Intranet.

Figure 2 depicts relationship G, between Internet Service Providers and Telecommunications Service Providers. The diagonal layering implies that PSTN voice and PSTN transport services are more tightly coupled than are the modular layers in the emerging IP infrastructure.

In Figure 2, services that would be considered an application service in an IP context (e.g., SS7/IN and directory services) are in the upper diagonal, and those services that would be considered a transport service are in the lower diagonal. Both are considered *telecommunications services* in legacy PSTN regulation.

Figure 3 depicts an abstracted interconnection between the emerging IP infrastructure and the legacy PSTN infrastructure

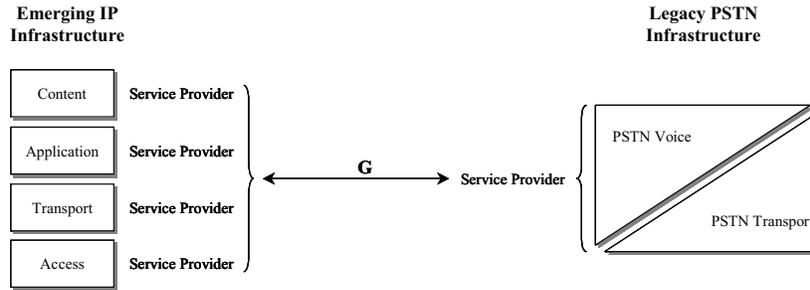


Figure 2-Relationship between IP and PSTN Infrastructure Providers

that might be used for telephony. The two linkages between the infrastructures reflect separate network connections for voice and signaling.

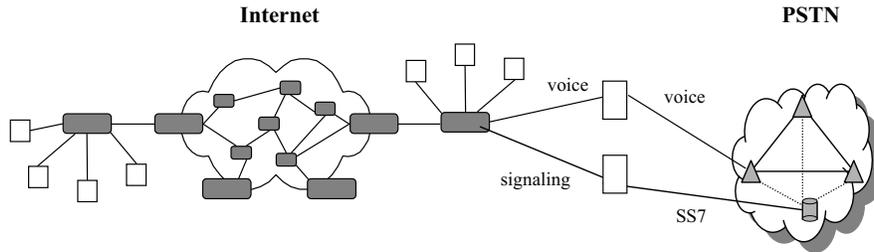


Figure 3-Abstracted Telephony Interconnection Between Infrastructures

The seven interconnection relationships (A through G) are further described in the following subsections. For cross-referencing purposes, the letter to the left of the section heading corresponds to the identifying letter used in Figures 1 and 2.

a) Access Provider to Access Provider

For purposes of example, consider two access providers. The first is facilities-based, owns fiber to the home, and offers an access service such as Gigabit Ethernet. The second access provider is not-facilities based, and wants to offer a competing Gigabit Ethernet service on a wavelength of its competitor’s fiber facility.⁵⁷ The interconnection relationship between these two providers is of interest to policy makers to ensure that there is competition in the access markets.

57. This example was inspired by on-going research on competition in the last mile by A. Banarjee and M.A. Sirbu at Carnegie Mellon University.

b) Access Provider to Transport Provider

These relationships establish the interconnection of the access networks to the backbone service providers, as well as to other services. Whether or not these two providers are actually the same company is irrelevant here. The point is that the end user may wish to make use of different transport providers. This ability to choose should encourage a competitive market.

c) Transport Provider to Transport Provider

These relationships establish the interconnected IP transport infrastructure. The relationships are typified by the peering and transit arrangements for traffic exchange that exist amongst backbone network providers (e.g., WorldCom) and access ISPs (e.g., EarthLink).⁵⁸ Interdomain QoS interconnections fall into this relationship category as well. Application services that these same providers may offer (such as EarthLink's email service) are not included in the transport to transport provider relationship.

d) Transport Provider to Application Service Provider

These relationships enable application service providers to access the transport networks that carry their traffic. Examples of these relationships include those between (but are not limited to):

- Transport providers and content providers
- Transport providers and caching / storage providers
- Transport providers, and electronic mail and web hosting service providers
- Transport providers and new application providers.

It is important to recognize that new applications can quickly enter this space and radically change the landscape. Napster is an example of such an application. In less than a year, Napster raised a number of legal, policy, and architectural issues. It is this dynamic nature of the Internet that requires the government to use prudence when considering policy that impacts the Internet.

⁵⁸. See Sicker, *supra* note 4 (discussing traffic exchanges); see also KENDE, *supra* note 52.

e) *Application Service Provider to Application Service Provider*

The end user subset of the Applications Services market sector is characterized by low economies of scale. This factor (together with others) should keep this market sector competitive. Intermediate applications, however, such as those that facilitate end user applications (e.g., telephony signaling, directory services, caching) may become important from a public policy perspective if a single provider dominates and has the power to thrive without interconnection to other application service providers.

f) *Application Service Provider to Content Provider*

While in the traditional media outlets, such as television and radio, the large conglomerates dominate the distribution of content, this need not be the case on the Web. This will help keep the content services market competitive. What could potentially become a policy concern is a scenario in which a dominant search engine uses its power to manipulate search results, while operating outside the reach of regulation.⁵⁹

g) *Internet Services Provider to Telecommunications Service Provider*

For the foreseeable future, the emerging IP infrastructure needs to interconnect with selected parts of the legacy PSTN infrastructure. With the current regulatory status of Internet Services as information services, a telecommunications service provider with market power may be able to erect barriers to entry. These barriers may include restricted access to rights-of-way, restricted access to signaling for call routing and completion, and restricted access to 911/E911 services.⁶⁰

2. Transition

The FCC's High Speed Access Notice of Inquiry ("NOI")⁶¹ suggests that the FCC is starting to think about regulation in a

59. See John Naughton, *Why Google Leaves Just Leaves Everybody Goggling*, LONDON OBSERVER, Jan. 27, 2002, available at <http://www.observer.co.uk/business/story/0,6903,639855,00.html> (expressing concern about the growing predominance of the Google Search engine). We have also based this on a Fall 1999 conversation with M.A. Sirbu.

60. Mindel & Sirbu, *supra* note 14.

61. Open Access NOI, *supra* note 53.

more unified manner.⁶² A rather forward-thinking aspect to this NOI was the cross-bureau nature of the effort. The document was the joint work of individuals in the Cable and Common Carrier Bureaus, the Office of Engineering and Technology and the Office of Plans and Policy. This might be an indication that the FCC is taking a first step to resolving some of the policy inconsistencies through the record-making process. Another indication of transition is that the FCC has begun to reorganize the structure of its bureaus to better serve the public and industry, abandoning strict conformity with the title structure of the Communications Act.⁶³ In spite of all of this, there is only so much the FCC can do without statutory changes.

Of course, the cost of major regulatory change is of paramount concern to the industry. It is difficult to know what and where the costs will be, but there is no doubt that these decisions could involve the flow of large sums of money. An interesting question to consider is whether the previous lack of regulatory clarity has had a negative impact on investment and other such measures of economic benefit. For example, has the lack of defining IP telephony resulted in less investment, or has it allowed markets to develop that would otherwise never have had a chance to develop? What might have occurred if IP telephony (in any form) was defined and regulated as a telecommunications service?⁶⁴ This paper does not answer these questions, but presents them only as a reminder of the economic impact of regulatory decisions.

CONCLUSIONS

This paper sets forth many of the issues that legislators and regulators must deal with prior to transitioning from the current, inadequate regulatory model to a more suitable model. In particular, policy makers need to be explicit about their goals, and they must sufficiently define the terms they use in their effort to implement appropriate policy. It will take a great deal of careful thought to create a model that continues to serve our policy goals while withstanding rapid technological innovation and deployment.

62. While many refer to the NOI as the Cable Open Access NOI, it is in fact, an inquiry into all forms of high-speed access.

63. See FCC Chairman William E. Kennard, *Draft Strategic Plan: A New FCC for the 21st Century* at http://www.fcc.gov/21st_century/draft_strategic_plan.txt (Aug. 1999).

64. Mindel & Sirbu, *supra* note 14.

This paper proposes a modified layered framework for telecommunications policy that focuses closely on interconnection issues. This framework provides a structure within which interconnection issues can be systematically identified and interpreted by distinguishing between IP access and transport services, applications, and content that use these transport services. It is our hope that this framework can serve as a tool with which policy makers can contemplate new models of policy.

Regardless, however, of whether one makes use of this framework, it is important that policy makers appreciate the interconnection issues. Stated another way, it is important that the significant and sometimes subtle issues associated with interconnection not be abstracted away when considering the use of a communications protocol stack as a potential regulatory framework.

With a general intention of moving toward a layered model, policy makers should focus on unifying the policymaking process. During the transition period, regulators can advance this policy within the terms of the present legislative model, however, in the long run, Congress should take on a major revision of the Communications Act.

REGULATING INFORMATION PLATFORMS: THE CHALLENGE OF REWRITING COMMUNICATIONS REGULATION FROM THE BOTTOM UP

JOHN T. NAKAHATA*

ABSTRACT

Communications regulation, as it has evolved since 1934, is ill-suited to the technological realities of convergence among different information and communications platforms. At its core, communications regulation is organized around specific applications and specific distribution technologies. Thus, over-the-air broadcasting is regulated differently than cable services, which are regulated differently than wireline telecommunications services, which are regulated differently than wireless telecommunications services. The evolution of this system is understandable: telephone/telegraph and radio were the dominant means of electronic communication in 1934. As new forms of communications evolved additional statutory provisions were grafted onto the Communications Act of 1934 to address new technologies and the services they provided. Digitization and the rise of Internet Protocol communications has greatly accelerated the pace of convergence, in which communications platforms are becoming capable of hosting many, previously separate, applications. To harness the full potential of this convergence, a wholesale, bottom-up revision of basic communications law is necessary. Such a rewrite must confront needed changes in the institutional relationships between federal, state, and local governments. Economic regulation should be limited to constraining market power that arises either from ownership of essential facilities or from redressing network effects that may “tip” markets toward monopoly. Social regulation should be tightly defined,

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targeted, and achieved through the least-economically distortive means.

INTRODUCTION

Communications regulators have long awaited the phenomenon of the convergence of communications technologies. For decades, policymakers and technologists have talked of a time when a multitude of applications – voice, video, and data – will be offered over multiple communications networks reaching every home and business. Convergence has long offered the promise of bypassing bottlenecks, and the hope that consumers could choose between telephone service over the telephone network, telephone service over the cable network, or telephone service over the airwaves. Likewise, television programming could be delivered over telephone wires, cable wires or through the ether.

Over the last decade, convergence increasingly became technologically possible. Digital television, digital cable, internet telephony, and the internet itself all take a communication, convert it into a series of digital signals, transmit those digital signals between distant points, and then allow a computer at the distant point (whether a PC, TV, telephone, Personal Video Recorder or some other device) to reconstruct the digital bits into high quality copies of the original images, information or sounds. This means that all of our communications transmission media – whether telephone wires, television cables, over-the-air television, or other transmissions over the electromagnetic spectrum – are becoming means to transmit digital bits for a variety of applications.

Despite all the talk of convergence, regulation in the United States has not kept pace. Sponsors of the landmark Telecommunications Act of 1996 (1996 Act)¹ billed it as “unleash[ing] a digital free-for-all” of competition among networks.² While the 1996 Act did do much to open local telephone markets to competition

1. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56. Most, but not all sections of the 1996 Act amended the Communications Act of 1934, 47 U.S.C. §§ 151-612 (1994). Throughout this article, “1996 Act” will refer to provisions of that Act, including both those that amended the Communications Act of 1934 and those that did not. Except as expressly noted, “Communications Act” or “Communications Act of 1934” will refer to that Act, as amended by the 1996 Act. In most cases, references to the Communications Act of 1934 as it stood prior to the 1996 Act address provisions not amended by the 1996 Act. In the rare instance in which this article refers to a pre-1996 provision of the Communications Act that was subsequently changed in 1996, that will be expressly noted.

2. 142 Cong. Rec. H1151 (Feb. 1, 1996) (statement of Rep. Markey).

and to end restrictions such as the cable-telephone cross-ownership ban that had prevented telephone companies from providing cable service and cable companies from providing telephone service in their local territories, the 1996 Act only started the work of reforming our communications laws to truly harmonize the diversity of regulation among information platforms.

Of course, one reaction is to ask: why regulate information platforms at all? This is a good question, and one that needs to be examined rigorously, but it cannot obscure the fundamental reality that, through our existing communications regulations, we already regulate information platforms. Regulation of common carriers and non-common carriers, regulation of cable operators, regulation of wireless carriers and satellite platforms, regulation of over-the-air broadcast radio and television – each is a form of regulation of an information platform. Notwithstanding the fact that these platforms increasingly host the same, competing applications, each platform-specific set of regulations subjects that platform technology to different rules than apply to other platforms. Each set of regulations strikes a different balance among competing regulatory goals, and each makes the platform operator accountable to different government agencies in differing degrees.

What convergence requires is a wholesale, bottom-to-top review of communications regulation, we must begin with asking why we are regulating, i.e., what social values choices lie behind regulation. These choices then must be implemented in a systematic and uniform matter across information platforms. This is not a small job. Moreover, because of the way the Communications Act is structured, no one entity other than the United States Congress has the ability to conduct this review. The Federal Communications Commission (FCC) cannot deregulate areas left by the Communications Act to the states, let alone directly restructure state regulation in those areas. States, on the other hand, do not have control over communications that travel outside their own borders.

Congress has yet to acknowledge that it has a significant role to play in addressing the implications of convergence and the rise of the Internet Protocol for today's regulatory system. Since the enactment of the 1996 Act, neither the Senate Committee on Commerce, Science and Transportation nor the House Committee on Energy and Commerce — the two congressional committees with direct legislative responsibility — has conducted a serious reexamination of current communications law in light of technological changes. Instead, Congress has focused on the

Communications Act at its edges, such as the prohibition against the Bell Operating Companies providing interLATA services before meeting the requirements of the “competitive checklist” in Section 271 of the Communications Act, but not at its core structure. The pace of change over the past six years, makes the start of such a review already long overdue.

This article outlines some of the issues such a comprehensive review would confront. First, Section I reviews the various goals that sector-specific communications regulation has sought to serve. This is important because the question of how and when to regulate must necessarily be informed by why regulation is imposed in the first place. Section II then reviews the different ways in which the Communications Act regulates information platforms today, and how those regulations and the institutional roles of government vary according to the regulatory classification of a particular service. What exists today is “regulation-by-pigeonhole,” such that the most important question in determining the regulatory obligations of a service provider is usually “into what classification does the service fall?” After exploring these pigeonholes in Section II, Section III of this article then looks at three services or forms of offering services that have emerged since the 1996 Act, plus the problem of reforming existing rate designs for competition. Finally, in Section IV, this article reviews potential approaches for harmonizing the regulatory treatment of information platforms, and some of the critical questions that legislators and regulators must confront in redesigning regulation “from the ground up” to truly reflect the realities of technological convergence.

I. FIVE RECURRING REGULATORY POLICY OBJECTIVES

Communications regulation across information platforms historically has pursued five recurring regulatory policy objectives. First, regulation attempts to limit the exercise of significant market power and to facilitate the operation of competitive markets. Limiting market power is best exemplified by rate regulation, as well as unbundling and interconnection requirements and regulations governing standards for the connection of customer premises equipment to the networks.³ Regulators at times

3. See, e.g., 47 U.S.C. § 201(b) (2000) (interstate common carrier rates must be just and reasonable); 47 U.S.C. § 202 (2000) (common carriers cannot unjustly or unreasonably discriminate in charges, practices, classification or services); 47 U.S.C. § 543(b)(1) (2000) (basic cable rates must be reasonable); 47 U.S.C. § 251(c) (2000) (requiring incumbent local exchange carriers (ILECs) to provide unbundled network elements and interconnection); 47 U.S.C. § 549(a) (2000) (requiring that

also will step beyond simply constraining market power to set regulatory requirements that promote the development of a competitive marketplace, such as when the FCC required all television receivers to receive UHF as well as VHF.⁴ Second, regulation seeks to protect consumers against perceived marketplace abuses that go beyond simply the rate charged or monopolistic practices. Examples of this type of regulation include anti-slammings rules, privacy rules, and labeling regulations for television sets.⁵ Third, regulators intervene to promote a multiplicity of speakers, including those who do not own communications facilities. Notable examples are “must-carry” and other mandatory carriage requirements, the general requirement that common carriers transmit messages without regard to content, and various carrier and media ownership limitations or prohibitions.⁶ Fourth, communications regulation has pursued univer-

cable navigation devices be available from suppliers other than the cable operator); 47 U.S.C. § 544a (2000) (consumer electronics equipment compatibility rules); *see also* 47 C.F.R. § 68 (2000) (telephone equipment standards).

4. *See* 47 C.F.R. § 15.117 (2000) (the all channel receiver rule).

5. *See, e.g.*, 47 U.S.C. § 222 (2000) (privacy of customer proprietary network information (CPNI)); 47 U.S.C. § 227 (2000) (restrictions on the use of telephone autodialer equipment and telemarketing); 47 U.S.C. § 228 (2000) (regulation of carriers offering pay-per-call services); 47 U.S.C. § 258 (2000) (prohibition against unauthorized changes in subscriber carrier selections).

6. *See* 47 U.S.C. § 202 (2000) (prohibiting common carriers from engaging in unjust or unreasonable discrimination, including making or giving any undue or unreasonable preference, or impose any undue or unreasonable prejudice or disadvantage, to any person, class or persons or locality); 47 U.S.C. §§ 534-535 (2000) (the “must-carry” requirements requiring that cable operators retransmit commercial and non-commercial local broadcast signals); 47 U.S.C. § 531 (2000) (requiring cable channels be set aside for public, educational or governmental use); 47 U.S.C. § 532 (2000) (the “leased access” provisions, which require a limited number of cable channels to be provided to third parties for commercial use); 47 C.F.R. § 76.501 (2000) (the cable-broadcast cross ownership rule), *vacated and remanded for further reconsideration*, Fox Television Stations, Inc., v. FCC, 280 F.3d 1027 (D.C. Cir. 2002) [hereinafter Fox v. FCC]; 47 C.F.R. § 73.3555(d) (2000) (the broadcast-newspaper cross ownership rule).

There has been substantial litigation over the extent to which the First Amendment permits the Commission to enact regulations to promote multiplicity of speakers. *See* Turner Broad. Sys. v. FCC, 512 U.S. 622 (1994) [hereinafter Turner I]; Turner Broad. Sys. v. FCC, 520 U.S. 180 (1997) [hereinafter Turner II] (upholding the must-carry requirements against First Amendment challenges); FCC v. Nat'l Citizens Comm. for Broad., 436 U.S. 775, 802 (1978) (upholding the newspaper-broadcasting cross-ownership rule stating, “[t]he regulations are a reasonable means of promoting the public interest in diversified mass communications; thus they do not violate the First Amendment rights of those who will be denied broadcast licenses pursuant to them.”); Fox v. FCC, *supra* note 6 (rejecting constitutional challenges to the newspaper-broadcast cross-ownership rule and the cable-broadcast cross-ownership rule, but finding that the FCC had insufficiently justified both rules and vacating the cable-broadcast cross-ownership rule); Time Warner Entm't Co. v. FCC, 240 F.3d 1126 (2001) [hereinafter Time Warner II] (holding that the national limit on aggregate cable system ownership violated the First Amendment).

sal service. Universal service policies fall into two groups: universal access to information, such as through “free-over-the-air” broadcast media; and the universal capability to engage in ubiquitous, real-time communications, such as over the telephone network. Fifth, regulators have adopted rules to support a number of other miscellaneous societal objectives, such as requirements that law enforcement have wiretapping capabilities, 911 service mandates, and rules to ensure that people with disabilities can use communications services.⁷

It is important to understand that these are all separate objectives, although the policy issues surrounding their implementation may overlap and a given rule may serve more than one goal. For example, media ownership restrictions in part serve the goal of limiting the exercise of market power. However, many of these rules also reflect a separate policy objective to ensure a multiplicity of speakers, even where not strictly required to constrain market power. To the extent these ownership rules limit otherwise efficient forms of economic organization, they impose costs and represent a social values choice to incur those economic costs in order to promote speaker multiplicity. Thus, communications regulation has, in some areas, pursued objectives other than those traditionally embraced by antitrust law.

II. THE COMMUNICATIONS ACT OF 1934: REGULATION BY “PIGEONHOLE”

The Communications Act of 1934 (the “1934 Act”) does not pursue these regulatory objectives through a uniform regulatory framework, but instead through an ad hoc scheme of regulation by service “pigeonhole.” The 1934 Act assigned regulatory responsibilities and rights, and thereby balanced these five general policy objectives, according to various statutory and regulatory classifications. In order to understand the challenges posed by the rise of digital technology and the Internet, it is important to review these classifications and the walls that Congress, the FCC and the states have attempted to erect between these classifications.

7. I have omitted the goal of managing the electromagnetic spectrum because it relates only to a subset of information platforms – those that use the electromagnetic spectrum over the open airwaves. Many of the issues with respect to spectrum policy, however, embody these same five regulatory objectives.

A. *Common Carriers*

One of the most fundamental regulatory pigeonholes in information platform regulation is “common carrier.” The fact that the 1934 Act focused on common carrier services, rather than simply any transmission of information by wire or radio, reflects the law’s origins and the fact that, in the late nineteenth century, railroads had been subject to price and service regulation because of their new monopoly power coupled with the view that they “‘exercise a sort of public office’ in the duties which they perform.”⁸

The 1934 Act defined a “common carrier” circularly, that is, as “any person engaged as a common carrier for hire.”⁹ Prior to the 1996 Act, courts provided additional guidance on when a service would be a common carrier service. In *NARUC I*, the United States Court of Appeals for the D.C. Circuit announced a two-prong test for common carriage.¹⁰ First, an entity may be a common carrier if the public interest *requires* that a proposed facility be operated as a common carrier. Second, an entity may be a common carrier if it holds itself out as offering service to the public indifferently.¹¹ A provider that made “‘individualized decisions, whether and on what terms to serve’” was a private carrier, not a common carrier.¹²

Although this sounds like a world of difference, the line between offering service indifferently to all and making individualized decisions is exceedingly thin. The *NARUC I* court noted, “[t]he cases make clear both that common carriers need not serve the whole public, and that private carriers may serve a significant clientele, apart from the carrier himself.”¹³ The courts have said that “the public” may be a very small class of the public, within which service is offered to all potential users.¹⁴ For contract tariffs, the “public” may, in result, be a single user, even if the offering is theoretically available to all.¹⁵

8. Nat’l Ass’n of Regulatory Util. Comm’rs v. FCC, 525 F.2d 630, 640 (D.C. Cir. 1976), *cert. denied*, 425 U.S. 992 (1976) [hereinafter *NARUC I*].

9. 47 U.S.C. § 153(10) (1994).

10. *NARUC I*, *supra* note 8, at 640-42.

11. *Id.* at 640; *see also* Virgin Island Tel. Co. v. FCC, 198 F.3d 921, 926 (D.C. Cir. 1999).

12. AT&T Submarine Cable Sys., *Memorandum Opinion and Order*, 13 F.C.C.R. 21585, 21588 (1998).

13. *NARUC I*, *supra* note 8, at 642.

14. *See* Nat’l Ass’n of Regulatory Util. Comm’rs v. FCC, 533 F.2d 601, 608 (D.C. Cir. 1976).

15. Indeed, with mandatory detariffing of long distance contract tariffs, it is not even clear the line still exists as these services for sophisticated customers are now offered only pursuant to individualized contracts. 47 C.F.R. § 61.19 (2000) (Al-

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When Congress enacted the 1996 Act, it did nothing to address the muddle surrounding this critical definition of “common carrier.” For reasons that are not entirely clear, Congress elected to add to the Communications Act a parallel set of definitions of “telecommunication,” “telecommunications service” and “telecommunications carrier.” Under the 1996 Act definition, a “telecommunication” is “the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or the content of the information as sent and received.”¹⁶ The key distinction drawn in this definition is that there be no change in form or content of the information, which, as we will see, helps to draw the line between “telecommunications” and another pigeonhole, “information services.” A “telecommunications service” is “the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.”¹⁷ This definition was extremely close to the D.C. Circuit’s *NARUC I* test for common carriage, and the FCC subsequently found “telecommunications services” and “common carrier services” to be synonymous.¹⁸ Completing these new definitions, a “telecommunications carrier” is simply “any provider of telecommunications services.”¹⁹

In addition, the law makes clear that a service does not become a common carrier service merely through guilt-by-association. The 1996 Act states that a telecommunications carrier “shall be treated as a common carrier . . . only to the extent that it is engaged in providing telecommunications services.”²⁰ This codified pre-1996 Act court decisions which held that a common carrier’s service was not subject to common carrier regulation merely because it was offered by an entity that was, with respect to other services, a common carrier.²¹ Accordingly, the actual

though mandatory detariffing in theory exists only for non-dominant long distance carriers, virtually all long distance carriers, including all the major carriers, are classified as non-dominant).

16. 47 U.S.C. § 153(43) (2000).

17. 47 U.S.C. § 153(46) (2000).

18. Inquiry Concerning High Speed Access to the Internet Over Cable and Other Facilities, *Declaratory Ruling and Notice of Proposed Rulemaking*, 17 F.C.C.R. 4798, 4831 (2002) (collecting citations to FCC decisions) [hereinafter Cable Modem Classification Order].

19. 47 U.S.C. § 153(44) (2000). The definition of “telecommunications carrier” also expressly excludes aggregators of telecommunications services, as defined under Section 226. *Id.*

20. *Id.*

21. *See, e.g.,* Southwestern Bell Tel. Co. v. FCC, 19 F.3d 1475, 1481 (D.C. Cir. 1994).

service being provided must be a telecommunications service (i.e., it must be offered to all users indifferently) before a service becomes subject to the benefits and burdens of common carrier status.

The Communications Act conveys significant rights and obligations upon common carriers. Among the most significant rights are the right to request interconnection and obtain unbundled network elements, collocation and discounted resale from incumbent local exchange carriers under Section 251 of the Communications Act (and the corresponding duty of the incumbent LECs to provide elements and interconnection), the right to be free from state and local barriers to entry under Section 253, and the right to obtain pole attachments and access to conduits at regulated rates under Section 224.²² A provider must also be a common carrier to receive most forms of explicit universal service support.²³

At the same time, the Communications Act subjects common carriers to significant regulatory requirements with respect to interstate and international services. First and foremost among these are the duties to carry traffic without unreasonable discrimination and without undue preference or prejudice, the duty to furnish service upon reasonable request, and the duty to offer service on rates, terms and conditions that are just and reasonable.²⁴ In addition, common carriers must, *inter alia*, contribute to explicit federal universal service mechanisms,²⁵ install network equipment meeting the requirements of the Communications Assistance to Law Enforcement Act (CALEA),²⁶ meet

22. See *Nat'l Cable & Telecomms. Assoc., Inc. v. Gulf Power*, 534 U.S. 327 (2002). Pole attachments are also available to cable television systems. Notably, an information service not provided by a cable television system or a telecommunications carrier would likely not be entitled to pole attachment rights.

23. See 47 U.S.C. § 254(e) (2000); 47 U.S.C. § 214(e)(1) (2000). As used here, "explicit universal service support" refers to the payments to universal service providers from the federal universal service fund established by the FCC to implement Section 254 of the Act. FCC decisions also discuss "implicit support", which is a means of generating subsidies for universal service between different users of the telecommunications network by manipulating the rates charged to different groups of customers. See *Texas Office of Pub. Util. Counsel v. FCC*, 183 F.3d 393, 406 (5th Cir. 1999), *cert. granted*, *GTE Serv. Corp. v. FCC*, 530 U.S. 1213 (2000), *cert. dismissed*, *GTE Serv. Corp. v. FCC*, 531 U.S. 975 (2000).

24. See 47 U.S.C. §§ 201-202 (2000).

25. 47 U.S.C. § 254(d) (2000). In addition to explicit contributions to the explicit federal universal service mechanisms, a carrier may contribute to maintaining universal service by paying rates that contain implicit universal service subsidies. See *supra* note 23. Implicit subsidies are paid by ratepayers who pay a subsidizing rate, regardless of whether that ratepayer is a common carrier, a private carrier or an end user.

26. 47 U.S.C. § 1002 (2000).

statutory requirements for disabilities access,²⁷ interconnect with other carriers²⁸ and obtain FCC approval prior to exiting a market.²⁹ Dominant interstate common carriers are required to file tariffs, with adequate cost-support for proposed rates.³⁰ Facilities-based common carriers are also currently required to unbundle basic common carrier services from their enhanced services, offering the basic services separately to others, including other providers of information services.³¹ The FCC has also required common carriers to “expand” capacity where technically feasible and economically reasonable in order to host alternative providers.³²

The Communications Act further subdivides the common carrier pigeonhole into interstate and intrastate common carriers. This jurisdictional split is entirely geographic, delineated by the originating and terminating points of a call, without any regard to the network functions being provided.³³ As a consequence, federal and state governments each have regulatory control over a part of, but not the entirety of, both local and long distance telephone networks. A provider’s interstate application may be subject to different regulation and be offered at different prices than that provider’s otherwise identical intrastate service.

27. 47 U.S.C. § 255 (2000).

28. 47 U.S.C. §§ 201, 251 (2000).

29. 47 U.S.C. § 214 (2000).

30. 47 U.S.C. §§ 203-205 (2000); *see* 47 CFR § 61.3(q) (2000). A dominant interstate carrier is a carrier that possesses market power, which the FCC defines as “the ability to raise prices by restricting output” and as “the ability to raise and maintain price[s] above the competitive level without driving away so many customers as to make the increase unprofitable.” Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefore, *Fourth Report and Order*, 95 F.C.C.2d 554, 558 (1983) [hereinafter *Fourth Report and Order*] (internal citations omitted), *vacated* AT&T v. FCC, 978 F.2d 727 (D.C. Cir. 1992), *cert. denied*, MCI Telecomms. Corp. v. AT&T, 509 U.S. 913 (1993).

31. Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry), *Final Decision*, 77 F.C.C.2d 384, 475 (1980) [hereinafter *Computer III*]. As discussed in greater detail below, the FCC has initiated a Notice of Proposed Rulemaking seeking comment on whether this requirement should be abolished. Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Universal Service Obligations of Broadband Providers; Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review — Review of Computer III and ONA Safeguards and Requirements, *Notice of Proposed Rulemaking*, 17 F.C.C.R. 3019 (2002) [hereinafter *Broadband Internet Access NPRM*].

32. *See* Tel. Co. – Cable Television Cross-Ownership Rules, *Second Report and Order*, 7 F.C.C.R. 5781, 5797-8 (1992); Tel. Co.—Cable Television Cross-Ownership Rules, *Third Report and Order*, 10 F.C.C.R. 244, 258-9, 262 (1994).

33. *See* Teleconnect Co. v Bell Tel. of Penn., *Memorandum Opinion and Order*, 10 F.C.C.R. 1626 (1995); Petition for Emergency Relief and Declaratory Relief Filed by BellSouth Corp., *Memorandum Opinion and Order*, 7 F.C.C.R. 1619 (1992).

With a few exceptions, most notably the provision of unbundled network elements and interconnection negotiated or arbitrated under Section 252 of the Communications Act and wireless mobile services, Section 2(b) of the Act maintains a strong division of responsibility between the state regulation of intrastate services and the federal regulation of interstate services.³⁴

The states regulate the operations of intrastate common carriers, which, it turns out, is very different than saying that states regulate the intrastate *operations* of common carriers.³⁵ Three key areas of state regulation stand out. First, states control the process of granting franchises and other use of public and private rights-of-way in the state. In some instances, states have granted incumbent telephone companies statewide franchises, but leave newer entrants to negotiate with local governments.³⁶ Some states allow public utilities, including state-certified communications common carriers, to have access to public rights-of-way along highways, or to bring condemnation proceedings against private property owners in order to obtain rights of way.³⁷

A second key area of state regulation is control of common carrier entry. Although Section 253 of the Communications Act, another provision added by the 1996 Act, purports to eliminate state and local legal barriers to entry, the FCC has not interpreted it to eliminate state requirements for certification of common carriers prior to entry. Indeed, the 1996 Act actually reinforced state entry control by creating an exemption from many local competition requirements for small incumbent telephone companies unless and until the state public utilities commission ("PUC") terminates the exemption.³⁸

34. 47 U.S.C. § 152(b) (2000). The United States Court of Appeals for the Eighth Circuit famously characterized the interstate/intrastate jurisdictional fence as "hog tight, horse high, and bull strong." *Iowa Utils. Bd. v. FCC*, 120 F.3d 753, 800 (8th Cir. 1997), *aff'd. in part, rev'd in part*, *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999). The FCC can, at times, preempt state regulation. The core standards are set forth in *Louisiana Pub. Serv. Comm. v. FCC*, 476 U.S. 355 (1986).

35. Many operations that occur solely within a single state can be classified as interstate if they handle interstate traffic. The usual convention for special access or private line facilities is that if the facility carries more than a *de minimis* amount of interstate traffic – defined as ten percent – the facility is classified as interstate and can be purchased from interstate tariffs. *MTS and WATS Market Structure, Memorandum Opinion and Order*, 97 F.C.C.2d 682, 711 (1983).

36. *See TCG Detroit v. City of Dearborn*, 206 F.3d 618 (6th Cir. 2000) (Section 253 does not preclude a city from imposing a franchise fee on a CLEC, when the ILEC was charged no fee under a previous statewide franchise).

37. *See, e.g.*, Cal. Pub. Util. Code § 7901 (1994) (granting telephone corporations permission to construct lines along public roads or across any waters or lands).

38. 47 U.S.C. § 251(f) (2000).

The third key area of state control is over rate design for retail rates. Because states regulate approximately three-quarters of the costs of connecting the subscriber to the local switching office (called the “local loop”), state rate design policies for incumbent local exchange common carriers shape cost recovery in the entire market. Historically, state regulators have engaged in a number of non-cost based rate design practices, including favoring residential consumers over business consumers, setting local service rates in proportion to the number of subscribers within the local calling area instead of in proportion to the cost of service (called “value-of-service” pricing), and recovering some of the costs of the local loop from other services, including long distance and vertical features.³⁹

The FCC has broad deregulatory powers with respect to interstate common carriers’ duties under the 1996 Act, but it has no express authority to directly deregulate intrastate common carriers.⁴⁰ Thus, a long distance company today that is completely price deregulated and generally prohibited from filing tariffs at the interstate level, may still be subject to detailed intrastate regulation, even when both markets are substantially competitive. Because of the limitations imposed by Section 2(b) of the Communications Act, the FCC cannot generally preempt an intrastate regulation that does not “prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.”⁴¹

B. Non-Common Carrier Telecommunications Providers

By defining a certain set of providers as “common carriers,” the Communications Act necessarily creates a second pigeonhole of non-common or private providers of telecommunications. These are providers that transport communications for hire, but do not hold themselves out as common carriers. They are generally providers that select with whom they will deal, and provide services that are tailored to individual users, subject to contracts that are medium to long term with a stable customer base.⁴²

39. These examples are from the U.S. General Accounting Office most recently documented subsidy practices. GENERAL ACCOUNTING OFFICE, TELECOMMUNICATIONS: FEDERAL AND STATE UNIVERSAL SERVICE PROGRAMS AND CHALLENGES TO FUNDING 14 (February 2002), available at <http://www.gao.gov/new.items/d02187.pdf> (last visited Aug. 28, 2002).

40. See 47 U.S.C. § 160 (2000).

41. 47 U.S.C. § 253(a) (2000).

42. See Norlight Request for Declaratory Ruling, *Declaratory Ruling*, 2 F.C.C.R. 132 (1987).

Non-common carrier providers of telecommunications are not wholly free of regulation. Most significantly, using its discretionary authority under Section 254(d) of the Communications Act, the FCC requires providers of private telecommunications to contribute to federal universal service mechanisms.⁴³ This universal service contribution requirement does not, however, extend to telecommunications that an entity furnishes to itself in order to provide an “information service.”⁴⁴ In some instances, the FCC has also imposed obligations on non-common carriers through license conditions.⁴⁵

Non-common carriers do not receive many of the rights of common carriers. For example, a non-common carrier is not protected under Section 253 of the Communications Act against state and local laws creating barriers to entry.⁴⁶ A non-common carrier cannot request state-arbitrated interconnection agreements under Section 252 of the Communications Act. Similarly, Section 224 limits its restrictions on utility pricing of pole attachments to attachments “by a cable system or any telecommunications carrier.”⁴⁷ Where the non-common carrier is not otherwise a “cable system” or a common carrier with respect to other services provided using the same attachment, it likely lies outside the scope of Section 224’s right to pole attachments. In addition, there is no clear preclusion of state regulation of non-common carriers, and so some states regulate non-common carrier services.⁴⁸

43. See Fed.-State Joint Bd. on Universal Serv., *Report and Order*, 12 F.C.C.R. 8776, 8797 (1997), *aff’d sub nom.*, Texas Office of Pub. Util. Counsel v. FCC, 183 F.3d 393 (5th Cir. 1999), *cert. granted*, GTE Serv. Corp. v. FCC, 530 U.S. 1213 (2000), *cert. dismissed*, GTE Serv. Corp. v. FCC, 531 U.S. 975 (2000).

44. See *id.* at 8822-3; see also Federal-State Joint Board on Universal Serv., *Report to Congress*, 13 F.C.C.R. 11501, 11508 (1998) [hereinafter Stevens Report].

45. See, e.g., Telefonica SAM USA, Inc., 15 F.C.C.R. 14915, 14931 (Int’l Bur. 2000) (“*Sam-1 License*”) (imposing, *inter alia*, resale and access to backhaul requirements); Australia-Japan Cable (Guam) Ltd., 15 F.C.C.R. 24057, 24071 (Int’l Bur. 2000) (“*AJC License*”) (imposing *inter alia* a requirement of guaranteed direct interface access to the cable network interface and the ability to collocate equipment on commercially reasonable and nondiscriminatory terms at the cable stations).

46. See 47 U.S.C. § 253(a) (2000). Although Section 253(a) does not specifically reference telecommunications carriers, it limits its protection to providers of “telecommunications service[s].”

47. Nat’l Cable Television Ass’n v. Gulf Power, 122 S. Ct. 782, 792 (2002) (quoting 47 U.S.C. § 224(d)(3) (2000)).

48. California, for example, requires all telephone corporations, whether or not offering common carrier services, to obtain a Certificate of Public Convenience and Necessity from the California PUC before constructing a line. Cal. Pub. Util. Code § 1001 (1994). See also James H. Lister, *The Rights of Common Carriers and the Decision Whether to be a Common Carrier or a Non-Regulated Communications Provider*, 53 FED. COMM. L.J. 91, 114 (2000).

C. Information (or Enhanced) Service Providers

This brings us to the next regulatory pigeonhole: information services. The Communications Act defines an “information service” as the “offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing. . . .”⁴⁹ Before the 1996 Act added this definition, the FCC tried to cope with developing technology in communications by articulating a distinction between “basic” and “enhanced” services. In creating its definition of “information services,” Congress borrowed heavily from the prior definition of “enhanced” services, such that these terms are congruent when applied to services offered by common carriers.⁵⁰ Most significantly, the FCC ruled that the category of information services is mutually exclusive from the category of common carrier (or telecommunications) services.⁵¹ If a service is an information service, it cannot also be a common carrier service, and vice versa.

In drawing the line between information (or enhanced) services and common carrier (or basic) services when the user is not obviously accessing a computer database, Congress and the FCC focus on whether there is a “change in the form or content of the information as sent and received.”⁵² If there is a “net protocol conversion,” the FCC will consider that service to be an enhanced or information service.⁵³ If there is no net protocol conversion

49. 47 U.S.C. § 153(20) (2000).

50. The subtle distinction is that an “information service” may be provided by a non-common carrier, while an enhanced service is an information service that is provided by a common carrier.

51. See Stevens Report, *supra* note 44, at 11520; *but see* AT&T Corp v. City of Portland, 216 F.3d 871, 878 (9th Cir. 2000) (stating in *dicta* that the transmission of cable Internet service over cable broadband facilities is a “telecommunications service” under the Communications Act). To be precise, an information service is not, however, mutually exclusive from “telecommunication” (as distinguished from a “telecommunications service”) because a necessary component of the information service is that it is offered “via telecommunications.”

52. 47 U.S.C. § 153(43) (2000). See also Computer II, *supra* note 31, at 421-22 (net protocol conversion). Some uses of a computer database may not be sufficient to classify a service as an information service. In order to permit the Bell Companies to offer some services that used database access, such as speed dialing, call forwarding, computer-provided directory assistance, call monitoring, caller ID, call tracing, call blocking, call return, repeat dialing and call tracking, the Commission has classified these services as “adjunct-to-basic” and allowed them to be offered as if they were basic services. See N. Am. Telecomms. Ass’n; Petition for Declaratory Ruling, *Memorandum Opinion and Order*, 101 F.C.C.2d 349, 358-361 (1985). As such, they have not been considered enhanced services. On the other hand, the Commission has not had to determine whether these would be information services if offered by a company other than a Bell Company.

53. Computer II, *supra* note 31, at 432.

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and there is otherwise no access to computer databases or other information, then the service will be a telecommunication that can be offered through either private carriage or common carriage.

Contrary to a sometimes-prevalent myth, this line between telecommunications services and information services is not a voice/data or circuit/packet distinction. The FCC has found certain voice services to be enhanced, such as voicemail, and certain data or packet services to be basic, common carrier services, such as frame relay and ADSL transport.⁵⁴ When the Commission considered the regulatory classification of Internet access, it viewed Internet access as an information service because of the access to stored databases, which does not directly translate to a carve-out from telecommunications regulation (common carrier or private) for all Internet Protocol services.⁵⁵

Falling into the information service pigeonhole has a number of significant consequences. Because an information service provider is not a common carrier, it is not subject to the Communications Act's common carrier obligations as well as other federal statutory obligations on common carriers such as CALEA. Information service providers are considered end-users under the interstate access charge system, so they pay end user charges rather than carrier charges, and therefore are not required to pay the per minute fees that long distance carriers are charged for originating or terminating a long distance call on a local network.⁵⁶ Information service providers also do not contribute to the explicit federal universal service fund based on their information service revenues.⁵⁷

The fact that an information service provider is not a common carrier means that it is not directly entitled to interconnection with common carriers, it cannot purchase unbundled network elements, it cannot directly obtain access to poles and conduits on regulated terms and conditions, and it has no federal

54. Indep. Data Communications Mfrs. Ass'n, Inc. Petition For Declaratory Ruling, *Memorandum Opinion and Order*, 10 F.C.C.R. 13717 (1995); GTE Tel. Operating Cos., *Memorandum Opinion and Order*, 13 F.C.C.R. 22466 (1998).

55. See Stevens Report, *supra* note 44, at 11536-7.

56. See Access Charge Reform, *First Report and Order*, 12 F.C.C.R. 15982, 16131-2 (1997), *aff'd sub nom.* Southwestern Bell Tel. Co. v. FCC, 153 F.3d 523 (8th Cir. 1998).

57. See Stevens Report, *supra* note 44, at 11508. In its *Broadband Internet Access NPRM*, the FCC has sought comment on "whether broadband Internet access providers that supply last-mile connectivity over their own facilities should be required to contribute to universal service based upon their self-provisioning of telecommunications." *Broadband Internet Access NPRM*, *supra* note 31, at ¶ 74.

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statutory protection against state and local barriers to entry.⁵⁸ In order to obtain necessary interconnection and other facilities, the Internet service provider must purchase facilities from a common carrier that has already obtained the necessary rights or elements.

It is not correct to assume, however, that information service providers are wholly unregulated. The FCC has consistently found that information services come within its regulatory jurisdiction, although it has generally chosen not to enact comprehensive regulation using that authority.⁵⁹ In two notable instances, the FCC has asserted its Title I authority to impose regulations: the imposition of merger conditions on AOL-Time Warner regarding Instant Messaging and Advanced IM-based high-speed services, and the requirement that voicemail and interactive menu services be accessible to people with disabilities.⁶⁰ Moreover, the United States Court of Appeals for the Ninth Circuit held that the FCC cannot preempt state regulation of intrastate information services.⁶¹ Accordingly, to the extent there remains any intrastate information service that can be separated from the interstate information service, those separable intrastate services remain subject to state regulation.⁶²

D. Commercial Mobile Services

Commercial mobile service (also known as commercial mobile radio service or "CMRS") providers are yet another category comprised most significantly of wireless telephone and paging providers. A commercial mobile service is any mobile service

58. See 47 U.S.C. § 224 (2000) (pole attachments); 47 U.S.C. § 251(c) (2000) (interconnection, unbundled network elements, resale and collocation for "telecommunications carriers"); 47 U.S.C. § 253(a) (2000) (preempting requirements that prohibit or have the effect of prohibiting the ability of an entity to provide "telecommunications service.")

59. See Computer II, *supra* note 31, at 432-33.

60. Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee, *Report and Order and Further Notice of Proposed Rulemaking*, 16 F.C.C.R. 6547, 6610 (2001) [hereinafter AOL-Time Warner Merger Order]; Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecomm. Act of 1996, *Report and Order and Further Notice of Proposed Rulemaking*, 16 F.C.C.R. 6417, 6457 (1999) (extending Title I jurisdiction to customer premises equipment and information services provided by non-common carriers). The FCC recently sought comment on regulating wireline broadband Internet access under Title I, rather than under Title II. Broadband Internet Access NPRM, *supra* note 31, at ¶ 50.

61. *California v. FCC*, 905 F.2d 1217, 1239-1242 (9th Cir. 1990) (holding 47 U.S.C. § 152(b) (2000) precludes the FCC from preempting state regulation of intrastate enhanced services).

62. See *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 375 n.4 (1986).

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“that is provided for profit and makes interconnected service [with the public switched telephone network] available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public. . . .”⁶³ Again, “the public” is not statutorily defined.

Although CMRS providers are subject to common carrier obligations such as the requirement to comply with CALEA and to contribute to federal universal service, they are specifically exempted from other regulations that would otherwise apply to common carriers. Most significantly, the Communications Act expressly preempts all rate and entry regulation of CMRS providers by state and local governments. As such, a CMRS provider does not have to obtain state certifications or to file state tariffs.

CMRS operators are not free from state and local authority, however. In the first instance, CMRS operators usually need local zoning approvals in order to erect towers. CMRS operators can be subject to state and local rights-of-way fees, provided that they actually use public rights-of-way.⁶⁴ States can also require CMRS operators to pay into state universal service funds.⁶⁵

E. Cable Services

Another relevant statutory pigeonhole is the definition of cable services. When cable television first emerged, it presented a regulatory conundrum: could it be regulated, and if so under what authority? Cable transmission of television programming itself was not a common carrier service. Moreover, it did not require spectrum licenses. The FCC’s first response was to create a set of regulations that it justified as “reasonably ancillary to the effective performance of the Commission’s various responsibilities for the regulation of television broadcasting.”⁶⁶ In 1984, Congress amended the Communications Act to add a separate title to govern cable services, Title VI. Under this new title, cable services are not common carrier services, but they are required

63. 47 U.S.C. § 332(d)(1) (2000). “Interconnected service” is defined in 47 U.S.C. § 332(d)(2) (2000) as “service that is interconnected with the public switched network.”

64. *Cf. AT&T Communications of the Southwest v. City of Austin*, 42 F. Supp. 2d 708 (W.D. Tex. 1998), *vacated as moot*, 235 F.3d 241 (5th Cir. 2000) (District Court enjoined enforcement of a local franchising ordinance against a CLEC that did not place facilities in public rights of way, but only purchased unbundled network elements).

65. *See* Petition of Pittencrieff Communications, Inc. for Declaratory Ruling Regarding Preemption of the Texas Pub. Util. Regulatory Act of 1995, *Memorandum Opinion and Order*, 13 F.C.C.R. 1735 (1997).

66. *United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968).

to carry channels of particular public interest that they might not otherwise have carried, and they face certain content and other restrictions more commonly associated with broadcast regulation.

The Communications Act defines a cable service as “(A) the one-way transmission to subscribers of (i) video programming, or (ii) other programming service, and (B) subscriber interaction, if any, which is required for the selection or use of such video programming or other programming service.”⁶⁷ “Video programming” is “programming provided by, or generally considered comparable to programming provided by, a television broadcast station.” “Other programming service” is “information that a cable operator makes available to all subscribers generally.”⁶⁸

The definition of “cable service” is significant because cable services have long been viewed as proprietary networks, with the cable operator in control of the content offered to the customer, subject only to limited mandatory carriage obligations.⁶⁹ This makes cable service very different from common carrier service, for which the most fundamental obligation is to carry all communications without preference or prejudice. The Communications Act therefore takes great pains to try to specify when a service is subject to cable regulation and when it is subject to common carrier regulation. These delineations, however, are stated as conclusions based on regulatory classification. Section 621(c) of the Communications Act provides, for example, that “[a]ny cable system shall not be subject to regulation as a common carrier or utility by reason of providing any *cable service*.”⁷⁰ Section 651(b) states, “A local exchange carrier that provides *cable service* . . . shall not be required, pursuant to subchapter II of this chapter [Title II], to make capacity available on a nondiscriminatory basis to any other person for the provision of cable service directly to subscribers.”⁷¹ As we will discuss in the next section, the fact that these lines are drawn through legal conclusions sets the stage for the debate of the proper regulatory classification of cable modem services.

The distinction between cable service and common carrier service also dictates which regulator is in charge. Although the Communications Act sets the general framework for regulation, the key regulatory player with respect to cable services is the

67. 47 U.S.C. § 522(6) (2000).

68. 47 U.S.C. § 522(20) (2000); 47 U.S.C. § 522(14) (2000).

69. See Turner II, *supra* note 6.

70. 47 U.S.C. § 541(c) (2000) (emphasis added).

71. 47 U.S.C. § 571(b) (2000) (emphasis added).

franchising authority because federal law *prohibits* an entity from providing cable service without obtaining a franchise.⁷² Moreover, Section 622 of the Communications Act allows the franchising authority to charge a franchise fee of up to “5 percent of such cable operator’s gross revenues derived . . . from the operation of the cable system to provide cable services.”⁷³ In addition, although most cable services are rate deregulated, the local franchising authority still regulates a very basic service package, pursuant to FCC rules.⁷⁴ By contrast, the FCC shares regulatory power over common carriers with the states, with the states controlling local service entry and rates.

F. Network-Delivered Video Programming

Section 651 of the Communications Act expressly outlines four different ways in which a common carrier, or anyone else, can deliver video programming (i.e. programming comparable to that provided by a broadcast television station) to subscribers, and how the applicable regulatory scheme varies expressly by transmission mode. There is probably no better single illustration of regulation by pigeonhole than Section 651.

Section 651(a)(1) provides that a common carrier or any other person providing video programming to subscribers using radio communication is subject only to the provisions of Title III of the Act (governing users of radio spectrum), but not to the provisions of Title VI.⁷⁵ If the provider carries video programming to subscribers on a common carrier basis, then the provider is subject only to the requirements of Title II (governing common carriers).⁷⁶ If the provider is neither a radio-based system nor providing service on a common carrier basis, then it can elect to be an Open Video System (OVS), or a cable system,⁷⁷ and Title

72. See 47 U.S.C. § 541(b) (2000).

73. 47 U.S.C. § 542(b) (2000).

74. See 47 U.S.C. § 543 (2000). Cable operators can be relieved of franchising authority regulation of basic service prices if they are subject to “effective competition.” *Id.*

75. Section 652’s prohibition on buy-outs also remains applicable. See 47 U.S.C. § 572 (2000).

76. Again, Section 652’s prohibition on buy-outs also remains applicable. In addition, Section 651(a)(2) retains the treatment of common carrier-provided cable service (i.e. service provided “directly to subscribers” over a common carrier’s facility) as a cable system. 47 U.S.C. § 571(a)(2) (2000) (preserving the applicability of Section 602(7)(C), 47 U.S.C. § 522(7)(C) (2000)); *Nat’l Cable Television Ass’n v. FCC*, 33 F.3d 66, 74 (D.C. Cir. 1994).

77. 47 U.S.C. 571(a)(3)-(4).

VI applies either in part, in the case of an OVS, or in full, in the case of the cable operator.⁷⁸

Notably, the regulator again varies among these different options. The FCC regulates Title III licensees. States and the FCC regulate common carriers. Franchising authorities regulate cable operators, subject to FCC rules. OVS operators have rights defined by the Communications Act, are subject to certain carriage obligations like cable companies, and pay franchise fees although they initially were not be subject to franchise requirements. Subsequently, however, the United States Court of Appeals for the Fifth Circuit held that local franchising authorities could require OVS operators to obtain a franchise.⁷⁹

G. Broadcasting

Broadcasting, along with common carrier, is the Communications Act's oldest statutory pigeonhole. For a long time, broadcasting has been a privileged service, benefiting from advantages such as "must-carry" requirements for cable television and satellite DBS operators, and at the same time subject to unique burdens including some minimum content requirements.⁸⁰ This has been justified in the name of providing the public with free access to public information through over the air radio and television service — a form of universal service. At the same time, broadcast regulation has been subject to limitations on ownership, consolidation, and network programming controls, all in part in the name of maintaining a multiplicity of speakers over this universal information service.

Traditionally, one would not think of broadcasting as an information platform, but the advent of digital television is changing that. Digital television is a form of broadcasting that uses 6 MHz of spectrum to broadcast television as digital 1's and 0's, rather than today's analog signal. The FCC's digital television orders provided broadcasters with an additional channel to use while making a transition from analog to digital broadcasting. Broadcasters must provide one stream of video programming using that channel, but can use the remaining capacity to offer an-

78. The specific obligations of an open video system are set out in Section 653, 47 U.S.C. § 573 (2000).

79. *City of Dallas v. FCC*, 165 F.3d 341 (5th Cir. 1999), *reh'g and suggestion for reh'g en banc denied* (May 28, 1999).

80. For an example of content requirements, see the FCC's rules implementing the Children's Television Act of 1990. See Policies and Rules Concerning Children's Television Programming, Revision of Programming and Commercialization Policies, Ascertainment Requirements, and Program Log Requirements for Commercial Television Stations, *Report and Order*, 6 F.C.C.R. 2111 (1991).

cillary and supplementary services.⁸¹ Recently, a television broadcaster launched a broadcast television-based high speed Internet access service using a telephone line for upstream traffic.⁸² As a Title III licensee, the FCC regulates broadcasters, and states and local governments are not involved.

III. PIGEONHOLE REGULATION: 3 NEW PROBLEMS AND 1 OLD ONE

When regulation-by-pigeonhole encounters new services or market arrangements, two related issues arise. First, the question is always raised as to whether and how these services fit into existing regulatory classifications, and the regulatory rights and obligations attached to those classifications. This creates issues of maintaining a “level playing field” among competitors providing services that may be substitutes. Second, these regulatory classification pigeonholes can also substantially limit regulators’ ability to revise regulation of legacy applications and networks to fit new realities. Four case studies illustrate the problems: the recent developments of cable modem Internet access services, Voice-over-Internet-Protocol, broadband capacity futures, and the existing practice of retail regulation in an emerging competitive marketplace.

A. *Cable Modem Service*

Over the last five years, a battle over the regulatory classification of cable modem services ensued in city councils and courts around the country, at the Federal Trade Commission, and at the FCC.⁸³ Entities are seeking to “open up” the cable platform and to require the cable modem platform to host multiple ISPs. In essence, these parties want to extend to cable systems the *Computer II* requirement that facilities-based common carriers offer basic transmission separately from the enhanced information service.⁸⁴

81. Advanced Television Systems and their Impact upon the Existing Television Broadcast Service, *Fifth Report and Order*, 12 F.C.C.R. 12810 (1997).

82. K. Kerschbaumer, *A Clear DTV Internet Strategy*, BROADCASTING & CABLE, Jan. 7, 2002, at 42.

83. See, e.g., *MediaOne v. Henrico County*, 257 F.3d 356 (4th Cir. 2001); *AT&T v. City of Portland*, 216 F.3d 871 (9th Cir. 2000); *AOL-Time Warner Merger Order*, *supra* note 60; *Applications For Consent To The Transfer Of Control Of Licenses and Section 214 Authorizations From MediaOne Group, Inc., Transferor, To AT&T Corp., Transferee, Memorandum Opinion and Order*, 15 F.C.C.R. 9816 (2000); *FTC AOL-TimeWarner Consent Decree*, FTC File No. 001-0105.

84. See Letter from John Butler, Sher & Blackwell to Magalie Roman Salas, Secretary, Federal Communications Commission, (December 21, 2001) (filed in

At one level, the battle over cable modems is a philosophical dispute. On one side stand those who fear that permitting a closed, proprietary cable modem platform will lead to a regime in which a small number of providers of high-speed last mile facilities become information gatekeepers for the rest of society, much as the big three television networks were before the rise of cable, the Internet and the Fox Television Network.⁸⁵ On the other side stand the cable system operators (and other potential system operators) who argue “open access” presumes the existence of networks that will never be built without some degree of exclusivity.

Regulatory “pigeonholes,” have been invoked by both sides of this debate to structure the regulatory result they seek. Open access proponents argue that cable modem service, or at least the underlying transmission, is a “telecommunications service.” If that is true, then in the absence of forbearance or other regulatory action, the cable operator would be a facilities-based common carrier. As a facilities-based common carrier, *Computer II* would require the cable operator to unbundle basic cable modem transmission and offer it separately from the enhanced information service of Internet access. Once unbundled and offered to the public generally, cable modem transmission would be a “telecommunications service.” Assuming that cable modem transmission is an interstate service (as FCC precedent classifying Internet services would suggest) then federal universal service contribution requirements would apply, as well as other obligations of non-dominant common carriers such as CALEA.⁸⁶

On the other side, the cable industry has argued that cable modem service is a “cable service.” This is in keeping with the model of a cable platform as proprietary, protected by the First Amendment and subject only to limited, statutorily mandated carriage requirements. In that case, Title VI would place cable modem services outside of common carrier regulation, and, based on the history of cable regulation, mandatory carriage would be

FCC GEN Docket No. 00-185). As noted above, *supra* note 31, the FCC is now seeking comment on whether to abandon this unbundling requirement under Computer II.

85. See Mark Cooper, *Open Communications Platforms: Cornerstone of Innovation and Democratic Discourse in the Internet Age*, 2 J. TELECOM. & HIGH TECH L. (forthcoming 2003); see also James B. Speta, A Common Carrier Approach to Interconnection, 54 FED. COMM. L.J. 225 (2002)(setting forth a legal basis for interconnection between ISPs and cable operators growing out of the common law of common carriage).

86. See, e.g., Implementation of the Local Competition Provision in the Telecom. Act of 1996, Intercarrier Comp. for ISP-Bound Traffic, *Order on Remand and Report and Order*, 16 F.C.C.R. 9151 (2001).

extremely unlikely in the absence of express legislation.⁸⁷ In order to offer cable modem service, cable operators would be *required* to obtain a local franchise, and franchising authorities could collect up to a five percent franchise fee.⁸⁸

Presented with these arguments, when the FCC finally addressed the issue of the proper classification in March 2002, it rejected the classifications proffered. Instead, the FCC concluded that cable modem service is an “information service.”⁸⁹ Consistent with the approach taken in the *Stevens Report* in which it held that Internet access is an information service, the FCC viewed cable modem service as an Internet access service in which a self-provisioned telecommunication is integrated with the information being provided.⁹⁰ The FCC distinguished the provision of a “telecommunication” as an integrated component of an information service from a separate and separable offering of a “telecommunications service.”⁹¹ The Commission continued to view “information services” and “telecommunications services” as mutually exclusive statutory classifications.⁹² In rejecting the “cable services” classification proffered by cable operators, the FCC found that cable operators did not “control” the majority of content “accessible by cable modem subscribers,”⁹³ that cable modem service is not an “other programming service” because the information provided is not provided to all subscribers generally but only on a subscriber specific basis, that the interactivity provided by cable modem services goes beyond that “‘required for the selection’ of content,”⁹⁴ and that cable modem services are not for the “use” of cable services.⁹⁵

Placing cable modem services in the information services pigeonhole answered some questions, but raised others. By its terms, *Computer II*'s requirement that facilities-based common carriers offer the underlying transmission services under tariff separately from their information services would not apply, at least as to cable companies that were not also offering other,

87. Compare *Turner II*, *supra* note 6 (upholding must carry legislation) with *Quincy Cable TV, Inc. v. FCC*, 768 F.2d 1434 (D.C. Cir. 1985), *cert. denied*, 476 U.S. 1169 (1986), and *Century Communications v. FCC*, 835 F.2d 292 (D.C. Cir. 1987) (finding FCC must carry regulations unconstitutional).

88. 47 U.S.C. § 542(b) (2000).

89. See *Cable Modem Classification Order*, *supra* note 18, at 4798, 4823.

90. *Id.*

91. *Id.* at 4824-5.

92. *Id.*

93. *Id.* at 4835.

94. *Id.* at 4836.

95. *Id.* at 4837.

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common carrier services.⁹⁶ But what if the cable company also offered common carrier services, especially if they provide those common carrier services over the same hybrid-fiber coaxial cable facilities used to deliver cable modem services? Rather than applying *Computer II* broadly, as it has done with respect to services such as xDSL that are offered over existing telephone lines, the FCC held that *Computer II* did not apply to cable facilities, creating an explicit technological distinction between cable facilities and “traditional wireline . . . facilities.”⁹⁷

The FCC then addressed the appropriate regulatory classification for the transmission service that a cable operator might make available to an unaffiliated ISP. The Commission concluded that such an offering by AOL-Time Warner would be a private carrier service, not a common carrier service, concluding that AOL-Time Warner decided “whether and on what terms to serve” with no specific regulatory compulsion to serve all indifferently.⁹⁸ In so holding, the Commission made clear that it would not use the limited alternative ISP access efforts then underway at some cable companies as the basis for finding that a cable modem provider had become a common carrier.

Finally, the Commission concluded that cable modem service is an interstate information service.⁹⁹ This decision placed the regulation of cable modem services outside of state jurisdiction, and within the scope of the FCC’s previous preemption of state authority in the *Computer Inquiries*.

Even such a sweeping decision does not, however, end all the regulatory uncertainty. The FCC, in the same document, issued a notice of proposed rulemaking regarding the consequences of its classification decision, and whether it should use its Title I regulatory authority over interstate information services to im-

96. *Id.* at 4826, quoting NARUC I, *supra* note 8, at 640.

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97. *Id.* The FCC did not expressly state that *Computer II* was limited only to “traditional wireline services and facilities,” but its reasoning suggests strongly that *Computer II* would not be extended to other platforms, such as satellites. As noted elsewhere in this article, the FCC is also reconsidering whether *Computer II* should be applied to traditional wireline facilities. See *supra* note 31, and accompanying text.

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Responding to a district court decision applying the Ninth Circuit’s decision in *City of Portland v. AT&T*, 216 F.3d 871 (9th Cir. 2000), to require cable modem services to be treated as telecommunications services, the Commission also took the unusual step of also forbearing from the application of *Computer II*, if it were held to be applicable. Cable Modem Classification Order, *supra* note 18, at 4826-7, 4843 n.219.

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98. Cable Modem Classification Order, *supra* note 18, at 4841.

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99. *Id.* at 4843.

pose specific regulatory obligations, including “open access.”¹⁰⁰ The Commission also sought comment on whether it should restrict state and local regulation of cable modem services such as requirement of a franchise, franchise fees, and consumer protection requirements.¹⁰¹ The Commission also sought comment on the applicability of the Act’s subscriber privacy provisions to “other services” offered by a cable operator.¹⁰² Separately, the Commission is also considering whether and under what circumstances a cable modem provider may be subject to universal service contribution obligations.¹⁰³

What the path to decision regarding the regulatory classification of cable modem services shows is that our current system of pigeonhole regulation adds years of regulatory uncertainty. Regulatory classifications define the debate. But these statutory classifications also limit regulatory options. With respect to cable modem services, unless the FCC construes Title I of the Communications Act to give it a blank slate with which to pick and choose among regulatory obligations found elsewhere in the Act — a concept it appears to be entertaining — the regulatory classifications themselves will be profoundly, and not necessarily rationally, limiting.

B. *Voice Over Internet Protocol (“VoIP”)*

Regulatory classification of cable modem transport and associated Internet access service is the “pigeonhole” battle of the last decade; the new battle will be the regulatory classification of VoIP services. Although VoIP to date largely consists of services that, with relatively low service quality, use gateways to bypass high international telephone rates (and the underlying international settlement rates system), there is little doubt that VoIP will continue to improve and change. As VoIP continues to evolve, it will increasingly become a platform to originate telephone calls. Indeed, Microsoft already builds this feature into its newest operating system, Windows XP.¹⁰⁴ In addition, newly-developed softswitch systems allow an IP-based network to interconnect and interoperate with the existing SS7-based circuit switched telephone networks.

100. See generally *id.* at 4840.

101. *Id.* at 4849-53.

102. *Id.* at 4854-55.

103. Broadband Internet Access NPRM, *supra* note 31, at 3045.

104. Microsoft does not, however, provide the telephone service for calls originated from computers running Windows XP. At present, that telephone service is provided by an internet telephone service provider (ITSP) with whom the caller enters into a service agreement to allow calls to be completed.

The key regulatory question is whether the provision of VoIP is a “telecommunications service” or an “information service.” As the FCC recognized the last time it systematically reviewed the regulatory classification of VoIP, this determination can be highly situational and fact intensive.¹⁰⁵ The umbrella of VoIP covers a wide variety of different service arrangements and network configurations. One type of VoIP service arrangement connects two gateways on the ends of a call, both of which are circuit-switched, using IP transport. In this architecture, there may be no net protocol conversion between the call as originally sent, and the call as received. In its most minimal form, the call itself may have no added features or intelligence, but is simply pure transmission. It was this form of VoIP that the FCC said may “lack the characteristics that would render them ‘information services,’” with the implication that in an appropriate case, it would find some types of VoIP to be a “telecommunications service.”¹⁰⁶

Other uses of VoIP can be highly integrated with other computer applications that the FCC clearly regards as an information service, such as e-mail or web browsing.¹⁰⁷ An application might integrate VoIP with the manipulation of documents or data among multiple users in a multiparty conference, or combine VoIP with websites so that a customer could be viewing a website and converse with customer service personnel or use voice response menus. These are merely a few illustrative examples of many possibilities. In these contexts, it appears that the voice communication is part and parcel of the access and use of stored databases and computer processing most characteristic of an information service.

In addition, even where the particular use of a VoIP technology is merely substituting IP technology for circuit-switched technology on one end of a call to or from a circuit switched telephone, the call will necessarily contain a net protocol conversion, i.e., a translation of the call from IP to circuit-switched, or from circuit-switched to IP. Under existing FCC doctrine, this net protocol conversion should be sufficient to render an IP-to circuit

105. Stevens Report, *supra* note 44, at 11544. At that time, the FCC referred to VoIP as “Internet telephony.”

106. *Id.*

107. Cable Modem Classification Order, *supra* note 18, at 4822-26. In the AOL-Time Warner Merger Order, although the FCC invoked its Title I authority to impose merger conditions regarding instant messaging, it ducked the question of whether instant messaging or advanced instant high-speed messaging would be an information service, a cable service or a telecommunications service. AOL-Time Warner Merger Order, *supra* note 60, at 6610.

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or a circuit-to-IP call to be an “information service.”¹⁰⁸ Under the regulatory classification approach taken in the *Stevens Report*, this would be true even if functionally the VoIP service is the same as the service offered by a circuit switched telephone company.¹⁰⁹

The answer to the question of whether VoIP is a telecommunications service or an information service therefore dramatically alters the degree to which VoIP is regulated. If VoIP is an information service, and VoIP providers are therefore information service providers, they will be regulated by states only to the limited extent states regulate intrastate information service providers, rather than potentially falling under state common carrier regulations.¹¹⁰

VoIP as an information service intensifies pressures on regulators. As information service providers, VoIP providers would also not be required to pay interstate or intrastate access charges, but would instead be treated as “end users” for the purposes of access charges, and would not be required to pay the access charges that telecommunications carriers are required to pay.¹¹¹ If VoIP is an information service, then federal and state regulators face greater pressure to remove subsidies from access and other intercarrier compensation rates, in order to avoid creating a subsidy “death spiral” in which subscribers migrate to VoIP simply to avoid implicit subsidies built into service rates.

108. Computer II, *supra* note 31, at 421-22.

109. This contrasts with the European Union, which has articulated a “functional equivalency” test for determining when VoIP should be subject to traditional telephony regulation. See Commission Communication 369/3, Status of Voice on the Internet under Community Law, 2000 O.J. (C369) 3, available at http://europa.eu.int/eur-lex/pri/en/oj/dat/2000/c_369/c36920001222en00030005.pdf (Dec. 22, 2000); see also INT’L TELECOMM. UNION, REPORT OF THE SECRETARY-GENERAL ON IP TELEPHONY 22-23 (2001), available at http://www.enum.org/information/files/ITU_WTPPFfinal-report31Jan.pdf (last visited Aug. 28, 2002).

110. VoIP may not be subject to intrastate regulation as either an information service or a telecommunications service if it is not possible to separate the intrastate and interstate components of a customer’s VoIP service. *Louisiana Pub. Serv. Comm’n v. FCC*, 476 U.S. 355, 375 n.4 (1986). With respect to calls originating or terminating on an IP device, it is likely that it will be impossible to distinguish interstate from intrastate VoIP calls as IP addresses are not geographically specific and thus, unlike telephone numbers, cannot be used to segregate intrastate from interstate traffic.

111. See *supra* note 56, and accompanying text; see also Complaint of Frontier Telephone of Rochester Against US DataNet Corp., Order Requiring Payment of Intrastate Carrier Access Charges, Case No. 01-C-1119 (NYPSC, May 31, 2002) (on file with author) (finding that an internet telephony provider that provided used IP to transmit calls between two gateways on the circuit switched network, i.e. with no net protocol conversion, was a telecommunication service and should have been subject to intrastate access charges).

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Moreover, the explicit federal universal service contribution system, which today collects contributions based on “revenues derived from domestic end users from telecommunications and telecommunications services,”¹¹² faces erosion if VoIP is an information service and VoIP calls can be placed without contributing to explicit universal service. Just as with implicit subsidies, migration of voice traffic to a VoIP information service would reduce the revenue base supporting universal service subsidies, unless, of course, the contribution base is changed so that it no longer relies on distinguishing revenues from telecommunications from revenues from information services.¹¹³

VoIP as an information service poses other statutory challenges as well. An information service provider, for example, cannot directly request interconnection or unbundled network elements from an incumbent LEC under Sections 251 and 252 of the Communications Act, but must do so indirectly through an intermediary telecommunications carrier. Likewise, unless an ISP is integrated with either a telecommunications carrier or a cable television system, it will not directly have access to regulated pole attachments. CALEA obligations, however, would not apply, as CALEA’s capability requirements do not apply to information services.¹¹⁴

On the flip side, if VoIP is a telecommunication service, and regulated under the framework that evolved for circuit-switched services, then the VoIP providers would face a range of burdensome new regulatory consequences, not all of which can be relieved through the FCC’s forbearance authority. To begin with, it is more likely that both state and international service authorization requirements will apply.¹¹⁵ Intrastate and interstate access charges may apply, depending on how states and the FCC

112. 47 C.F.R. § 54.709(a)(i) (2000).

113. 47 C.F.R. § 54.709(a)(i) (2000). The FCC is considering changing the contribution methodology to, *inter alia*, one based on network connections rather than revenues. Federal State Joint Board on Universal Service; 1998 Biennial Regulatory Review, *Further Notice of Proposed Rulemaking*, 17 F.C.C.R. 3752 (2002). If this change were adopted, the universal service contribution methodology would no longer be linked to the regulatory classification of the service from which revenues were derived. *See also* Broadband Internet Access NPRM, *supra* note 31, at ¶¶ 69-82.

114. Communications Assistance for Law Enforcement Act (CALEA) § 103(b)(2)(A), 47 U.S.C. § 1002(b)(2)(A) (2000). The FCC has noted that the definitions of “telecommunications service” and “information service” under CALEA and the Communications Act are not identical, and it has applied CALEA to facilities jointly used to provide information services and telecommunication services. *See* Communications Assistance Law Enforcement Act, *Second Report and Order*, 15 F.C.C.R. 7105, 7110 (1999).

115. *See* Stevens Report, *supra* note 44, at 11540, ¶ 82 & n.170.

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choose to assess access charges.¹¹⁶ VoIP services also may fall within the FCC's non-discretionary universal service contribution requirements under Section 254(d).

For VoIP, the regulatory classification battle is not just a U.S. domestic policy issue. Around the world regulators are examining VoIP, reaching widely differing results. Although the U.S. thus far has left VoIP in a state of de facto deregulation, Canada, for example, will regulate VoIP providers as telephone companies if the communications are real-time.¹¹⁷ Some countries affirmatively prohibit voice over IP networks, including the public Internet.¹¹⁸

C. Bandwidth Trading

Bandwidth trading is the third example of a new market development that does not easily fit into existing regulatory classifications. While the future of bandwidth trading has been clouded by the collapse of Enron, one of its chief proponents, and by the "bandwidth glut," it still provides an interesting look at how regulatory classifications can create questions for market innovations.¹¹⁹

One of the main ideas behind bandwidth trading was to try to fully commoditize bandwidth sales between geographic pooling points, and create exchanges on which that commoditized bandwidth could be sold.¹²⁰ An essential underlying ingredient was a standardized contract that kept the terms and conditions basically constant, i.e., provided a uniform definition of the services being traded, so that buyers and sellers could, in the ideal, bargain only over price.¹²¹ Proponents of bandwidth trading argued that it would provide a much more efficient way for users to

116. See, e.g., Complaint of Frontier Telephone of Rochester Against US DataNet Corp., *supra* note 111. At least one lower state court has ruled that access charges applied to a service that the provider asserted was VoIP. *Qwest Corp. v. IP Telephony, Inc.*, Case No. 99CV8252, slip op. at 1-2 (Denver D. Ct., Jan 12, 2001).

117. See INT'L TELECOMM. UNION, REPORT OF THE SECRETARY-GENERAL ON IP TELEPHONY 39 (2001), available at http://www.enum.org/information/files/ITU_WTPF_finalreport31Jan.pdf (last visited Aug. 28, 2002).

118. *Id.*

119. See *Fiber-Optic Glut Saps Bandwidth Trading*, REUTERS, Jan. 3, 2002; Khali Henderson, *Bandwidth Trading at a Crossroads*, PHONE+ MAGAZINE, Jan. 2002, available at <http://www.phoneplusmag.com/articles/211edlet.html>. But see *Enron Goes But Bandwidth Trading Still Makes Sense*, Ovum Comments, at www.ovum.com/go/ovumcomments/006458.htm (Feb. 25, 2002) (quoting an analyst as saying "it's too early to sound the death knell for trading in the telecoms sector.").

120. Darren Jacobs, *Where has Bandwidth Trading Been? Where is it Now?*, PHONE+ MAGAZINE, July 2001, available at <http://www.phoneplusmag.com/articles/171tpost.html>.

121. *Id.*

obtain needed bandwidth, and for providers to contract and manage risks. In its purest form, bandwidth trading would essentially eliminate issues of discrimination by allowing all discrimination to be arbitrated in an open exchange.

For the sake of argument, flash forward and assume that pooling points were assembled, and the standardized contract terms were generally agreed upon within the trading community. A sale of telecommunications according to a standardized contract that is offered to anyone willing to trade in the exchange on first blush appears to be the provision of telecommunications for a fee, offered in a manner that is offered indifferently to any party, the core of the definition of a common carrier service.¹²² Yet these contracts are highly specific. Price presumably would vary from route to route and from moment to moment, both depending on both the availability of bandwidth supply at the date and time capacity is provided, and the number of others seeking capacity at the same time. Moreover, capacity available on one route, for one sale, is not necessarily available for sales to others, or along other routes. This seems much more like the sale of excess capacity that gave rise to private, non-common carrier carriage.

These definitional difficulties become even greater if what is really being traded is the contract, not the underlying service. Commodities markets have generally developed a variety of risk management devices, all of which are financial transactions that rarely involve the actual delivery of the commodity being traded. A commodity trader can, for example, take a delivery of a carload of pork bellies, but she can also offset that contract against other contracts.

The remoteness of buyer and seller makes it especially difficult to determine the jurisdictional classification of a bandwidth contract, or whether the sale is ultimately to an end user or a carrier. How does the seller at an exchange determine whether the bandwidth contract between San Francisco and Los Angeles will be used for intrastate traffic, interstate traffic, or simply to be offset against other contracts? Similarly, is the purchaser at the exchange a carrier or an end user (a critical distinction for assessing universal service under today's contribution formula) and who is to say that the contract will not be sold again before the service is delivered?

One could, of course, try to force fit bandwidth trading into the old regulatory models, but for what purpose? Bandwidth

122. See *supra* note 17 and accompanying text.

trading illustrates that the old regulatory classifications contained assumptions about how services are sold that may no longer remain valid. Any regulatory scheme that is going to survive convergence will also have to have sufficient flexibility so that it does not stand in the way of new market innovations in how services are sold.

D. Retail Regulation Reform for Telephone Service

The final case study is the old problem of retail rate regulation reform for telephone service, which presents new dilemmas in light of increasing competition. As discussed above, neither the federal government nor the state government regulates the entirety of a common carrier's operations. They split the jurisdiction, with the lion's share of responsibility residing with the states. The FCC regulates prices for interstate services, including interstate end user charges that are billed along with the subscriber's state-regulated local monthly service charge, charges that long distance carriers pay to local carriers when they originate or terminate an interstate long distance call, and interstate long distance rates.¹²³ The state regulates the monthly service charge for local service, and any intrastate long distance services.

Historically, in the monopoly era, this jurisdictional split did not make much difference. There was only one choice of local and long distance service, and consumers paid what they were charged. Both the states and the FCC pursued various non-cost-based pricing strategies to subsidize residential local service charges: higher charges for long distance service implemented either through the costs allocated to toll service or, later, to access charges, even when the costs of toll service were no higher than the costs of local service;¹²⁴ higher rates for local business line service, which often are double local residential service rates, even though the cost of service will be approximately the same;

123. 47 U.S.C. § 152 (2000). Although the FCC has detariffed most interstate long distance services, it has not actually forborne from regulating interstate long distance rates. Interstate long distance rates must still be just and reasonable, cannot be unreasonably discriminatory, and are subject to rate averaging and rate integration requirements.

124. Until the FCC created access charges in the 1980's, this subsidization was largely carried out through the separations process, by assigning more costs to the interstate jurisdiction than were justified by interstate usage. Milton Mueller has described how this evolved historically as a policy supported both by the Bell System and by regulators. MILTON L. MUELLER, *UNIVERSAL SERVICE: COMPETITION, INTERCONNECTION AND MONOPOLY IN THE MAKING OF THE AMERICAN TELEPHONE SYSTEM* 150-64 (1997).

above-cost rates for optional features such as voicemail, call waiting or caller ID (called vertical features); geographic rate averaging of rates between high and low cost areas; and “value of service” pricing between different geographic areas so that rural areas with relatively few subscribers in the local calling area had lower monthly service charges than urban areas with many subscribers, even though the cost of service is lower in the urban area than the rural area.¹²⁵ The effect of these policies was, and is, redistributive — shifting money from business users to residential users, and from consumers of “luxuries” to those who purchase only basic service. The result was a set of retail prices that reflected social and political policy choices, and did not at all reflect the underlying costs of service.

The existence of this irrational retail pricing structure infects and complicates all other telecommunications policy issues. The regulatory status of VoIP, for example, is a much more difficult policy issue because VoIP as an information service threatens these complex subsidies, while VoIP as a telecommunications service threatens to apply these irrational legacy policies to a new, currently unencumbered technology. And because these economically irrational rates exist in both the federal and state rate structures, neither the federal government nor the state government alone can rationalize the retail pricing system.¹²⁶

The chaos of having retail-pricing policies set in two jurisdictions — federal and state — also infects competition policy because the FCC cannot fully deregulate retail rates as competition increases. One could imagine a rational competition development policy, for example, that had strong wholesale requirements, including permitting widespread use of an unbundled network, but that also relaxed retail rate regulation and permitted carriers to redesign rates at the retail level to be more in line with the structure of underlying forces and the competitive realities of the marketplace. Although the FCC can set national market opening rules, it does not have the direct authority to deregulate retail rates to implement such a policy,¹²⁷ and states

125. See GENERAL ACCOUNTING OFFICE, TELECOMMUNICATIONS: FEDERAL AND STATE UNIVERSAL SERVICE PROGRAMS AND CHALLENGES TO FUNDING 14-18, GAO-02-187.

126. This is especially apparent in the area of access charges, in which the federal government has undergone substantial pricing reforms over the past 20 years, but many states have not.

127. The FCC does have the authority to preempt state rate limits if they contravene section 253(a), 47 U.S.C. § 253(a) (2000). It also could deregulate the end user rates it regulates, such as the subscriber line charge, which could have the effect of making state price regulation much less effective.

have been generally reluctant to deregulate or substantially modify retail rates, especially when it could adversely affect politically-sensitive residential monthly service rates.

Moreover, the failure of states to address retail rate reform impinges on the ability carry out other telecommunications reforms. The FCC has, for example, proposed moving to a unified system of intercarrier compensation.¹²⁸ One of the clear obstacles to a unified intercarrier compensation system, identified by the FCC and virtually all commenters, was the FCC's lack of direct authority over intrastate access rates. Similarly, implementation of the FCC's competitive policies for both local and long distance entry is now bumping up against concerns that rates for unbundled network elements, even if cost-based, may still face a retail price squeeze, because regulators have required incumbents to price residential service below cost.¹²⁹ These competition policy problems all result from the same root cause: artificial regulatory classifications, and the assignment of jurisdiction over those classifications, subdivide authority to such an extent that no single regulator can direct change without cooperation from other regulators.

IV. THE CHALLENGE OF FINDING SOLUTIONS

So what is the solution? How can regulation be reconfigured to address the basic technological reality that multiple information platforms can run many different types of applications, and the specific transmission medium, whether copper pair, hybrid fiber coaxial cable, wireless or even broadcast television spectrum, no longer necessarily defines the application? Because regulation by pigeonhole is built into the fundamental structure of the Communications Act, it cannot be fundamentally addressed without revisiting the core structure of that Act, and the regulatory relationships between the federal, state and local governments.

There are at least two possible routes to statutory reform, one exemplified by the Clinton Administration's aborted Title VII proposal and one that would be a more stem-to-stern revision of the Communications Act. While variations of the Title VII strategy could provide patches to the existing regulatory system, the latter course is probably now the only effective long-term solution, as changes would be necessary throughout the Communi-

128. See Developing a Unified Intercarrier Comp. Regime, *Notice of Proposed Rulemaking*, 16 F.C.C.R. 9610 (2001).

129. See *Sprint Communications Co. LP v. FCC*, 274 F.3d 549 (D.C. Cir. 2001).

cations Act, in part because of the structure of the 1996 amendments.

A. *Title VII*

The Clinton Administration envisioned Title VII as a new title of the Communications Act to govern switched broadband services. The idea was to add Title VII, like Title VI before it, in addition to the other titles of the Communications Act. It would have addressed the new, anticipated technological phenomenon of convergence. The concept was an “opt-in” regime, one which would combine features of common carrier and cable regulations, particularly as they pertained to social goals of regulation, but would treat all two-way switched broadband networks the same.

The Clinton Administration’s Title VII proposal was a valiant attempt to anticipate the future and to try to establish a new regulatory regime to fit changing realities before there was a regulatory “crisis.” Although Congress never seriously considered it, the Title VII proposal still warrants review because it was the one and only recent attempt to confront the problem of regulation by pigeonhole. The Title VII proposal would have applied at a provider’s election, to “two-way, broadband, interactive, switched, digital transmission services . . . provide[d] to end users.”¹³⁰ The proposal did not define any of these terms, although it gave the FCC the power to do so.¹³¹ To be eligible for Title VII, a firm had to offer these services to at least twenty percent of its subscribers in a state. Significantly, Title VII would have applied both to the Title VII broadband services and to “the other services that share broadband facilities in those states.”¹³² On the other hand, services that did not share the Title VII facilities would remain subject to Title II or Title VI.

Title VII would have imposed three broad requirements on all Title VII networks: “interconnection and interoperability requirements,” “open access obligations (including access for the disabled) to enable all persons to send information over the firms’ broadband facilities,” and “[u]niversal service requirements consistent with those under other parts of the Communications Act. . . .”¹³³ Rates would have been regulated only if “the FCC finds [that the firms] have market power in the provision of such

130. THE WHITE HOUSE, ADMINISTRATION WHITE PAPER ON COMMUNICATIONS ACT REFORMS 7, available at <http://clinton6.nara.gov/1994/01/1994-01-25-white-paper-on-communications-act-reforms.html> (1994).

131. *Id.*

132. *See id.*

133. *Id.*

services.”¹³⁴ State and local rate regulation of firms without market power would have been expressly preempted.¹³⁵ Pole attachment provisions would have applied to Title VII providers, as well as provisions regarding obscene and harassing phone calls, services for hearing and speech-impaired individuals, and restrictions on operator services, autodialers and pay-per-call services. For video services, Title VII networks would have been subject to retransmission consent, requirements to set-aside capacity and carry public, educational and government access programming, must-carry requirements for commercial and non-commercial broadcast signals, and video subscriber privacy protections.

The Clinton Administration proposed that “[s]tates would continue to regulate rates for the intrastate components of Title VII services provided by firms with market power.”¹³⁶ It would, however, have required exercise of that authority to be “in accordance with models and guidelines adopted by the FCC in consultation with the states,” rather than simply through the states acting on their own.¹³⁷ The Clinton Administration also would have declared that “federal authority over the rates, terms, and conditions under which communications services are provided would predominate only when needed to ensure that national goals of promoting competition and liberal interconnection and access require it.”¹³⁸

Although not part of Title VII, the Clinton Administration also proposed, “to preempt state entry regulation for provision of telecommunications and information services.”¹³⁹ In addition, the Administration proposed “to preempt state and local regulation of the rates for any service charged by a telecommunications carrier that the FCC finds, or has found, after notice and comment, to lack market power.”¹⁴⁰ The Administration’s white paper on this topic proposed procedures to restore rate regulation under certain, unspecified circumstances.¹⁴¹

Reviewing the Clinton Administration’s Title VII proposal almost eight years later, it is easy to see why it sank so quickly. The proposal was tremendously ambitious. It also had something for everyone to hate. Cable companies were not going to

134. *Id.*

135. *See id.*

136. *Id.* at 8.

137. *Id.*

138. *Id.*

139. *Id.* at 3.

140. *Id.*

141. *See id.*

lightly accept open access for their closed, proprietary networks. Telephone companies got little from the Title VII proposal itself, unless they could convince the FCC that they lacked market power in broadband services, and they also would have been saddled with significant mandatory carriage obligations for video services. State PUC commissioners attacked the proposal because it did not clearly and unequivocally maintain state jurisdiction in the face of technological change.¹⁴² Neither the House nor the Senate considered a Title VII proposal.¹⁴³

B. A “Bottoms-up” Statutory Overhaul

The real answer, one we can see more clearly now than nine years ago, is that we will need a unified regulatory regime that applies regulation where functionally necessary to address economic or social issues, but does not distinguish regulatory right or obligation by underlying technology. The key to moving beyond regulation by “pigeonhole” is to de-emphasize the significance of the pigeonholes, and to recognize that regulation of the platform and inputs to the information platform are distinct from regulation of applications run on the platform.

In another article in this journal, Kevin Werbach provides a succinct, articulate framework for a new regulatory model. He suggests replacing pigeonhole regulation with a unified system organized around functional “layers” derived from the OSI model.¹⁴⁴ Werbach identifies four different layers relating to information platforms – content, applications or services, logical, and physical.¹⁴⁵ As far as it goes, this makes eminent sense. From an institutional perspective, it is also a fundamental, radical change.

142. See *State Regulators to Congress: Keep Your Hands Off Our Business*, 12 STATE TELECOM. REGULATORY REPORT (March 10, 1994).

143. See Jonathan D. Blake & Lee J. Tiedrich, *The National Information Infrastructure Initiative and the Emergence of the Electronic Superhighway*, 46 FED. COMM. L.J. 397, 410 & n.58 (1994).

144. See Kevin Werbach, *A Layered Model for Internet Policy*, 1 J. TELECOM. & HIGH TECH. L. 37, 59 (2002). Others have also used a layered approach to analyze communications policy. Yochai Benkler used a layered approach to critique and outline the challenges facing media regulation in a digitally networked environment. Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access*, 52 FED. COMM. L.J. 561 (2000). Lawrence Lessig uses this approach to explore the legal issues facing the information “commons.” LAWRENCE LESSIG, *THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD* 23-25 (2001).

145. Werbach, *supra* note 144, at 59. Benkler uses three layers, physical, logical, and content. Lessig likewise uses three layers, physical, code, and content. All are derived from, and are simplifications of, the OSI model, which has seven layers.

Building off of the layered approach, it is possible to identify a list of issues Congress would have to confront were it to attempt to implement the layered model, or any regulatory framework for a converged world. This section works through these layers, using Werbach's model of four layers, to examine the basic policy choices that would confront Congress as it examines how to reconstruct a unified, regulatory system for information platforms, and to propose some specific changes.

Starting literally from the ground up, the most basic element at the physical level of the network is access to poles, conduits and rights of way. Rights to rate regulated access to poles, conduits and rights of way should not be limited to companies that also provide "telecommunications services" or "cable services," as is the case today under Section 224. In cases of scarcity, it may make sense to prioritize in favor of those who offer services for hire to the public generally, as opposed to private carriage, but it makes little sense to make access to poles, conduits and rights of way turn on whether or not you are providing a telecommunications service or an internet access service that happens to be able to run a voice application. Similarly, Section 253's requirements that right of way fees be reasonable, competitively neutral and non-discriminatory should not exclude systems that provide access to the world via the Internet. Legislators should modify each of the Act's provisions affecting rights-of-way to make them "application-neutral."

Making such a change requires confronting one of the core institutional disputes that has festered since the 1996 Act – the extent of the legitimate role of state and local right-of-way holders to govern entry and the services provided over the networks. Limiting this authority to receipt of compensation and reasonable limitations on the timing and quality of construction would greatly reduce barriers to entry and deployment of new networks.¹⁴⁶ This issue of access to public rights-of-way will require Congress to balance the interests of the public and providers and would-be providers of information platforms, with the property interests of the right-of-way owners.

Moving above the level of rights of way, at both the level of physical networks and applications, there is the process of authorizing entities to build new networks, regardless of the applications that will later ride over those networks. It appears that

146. TECHNET, A NATIONAL IMPERATIVE: UNIVERSAL AVAILABILITY OF BROADBAND BY 2010 12-13, *available at* <http://www.technet.org/news/newsreleases/2002-01-15.64.pdf> (last visited Aug. 26, 2002).

we gain little from individual state entry regulation for facilities construction and entry into applications markets such as voice telecommunications. Indeed, much is hindered. Following the model Congress applied to mobile communications, and much as the Clinton Administration white paper proposed, federal law should preempt entry regulation across the board and divorce it from right-of-way regulation.¹⁴⁷ Today, for example, a broadband service provider must negotiate cable franchises in each local area, and also obtain certificates of public convenience and necessity from every state PUC for areas in which it seeks to operate. If a licensing scheme is necessary, perhaps to screen out individuals that repeatedly form and dissolve communications providers as a mechanism to commit consumer fraud,¹⁴⁸ companies should at least have the option of obtaining a single, nationwide license to provide any communications services, subject to only minimal registration requirements at the FCC.¹⁴⁹

After receiving authorization for construction of an information platform, the provider must assemble its network. One way to do this is actually to build a network. A second method is to rent all or part of the network, as is permitted today under Section 251's provisions governing unbundled network elements. In the foreseeable future, if there will be only a small handful of facilities providers, any new regulatory framework must decide whether, and, if so, under what conditions, facilities providers are required, when technically feasible, to make their facilities available to people assembling competing networks.¹⁵⁰ Clearly, regulators should draw one demarcation line with respect to market power in the underlying facilities, as Section 251 essentially does, excluding platforms that lack market power in the underlying facilities from physical unbundling requirements.¹⁵¹

147. See *supra* Part II.D. (discussing federal preemption of state entry and rate regulation for CMRS).

148. See CCN, Inc., Church Discount Group, Inc., Discount Calling Card, Inc., Donation Long Distance, Inc., Long Distance Servs., Inc., Monthly Discounts, Inc., Monthly Phone Servs., Inc., And Phone Calls, Inc., *Order to Show Cause and Notice of Opportunity for Hearing*, 13 F.C.C.R. 13599 (1998) (revoking a carrier's operating authority for engaging in slamming) (these companies are collectively referred to as the "Fletcher Companies").

149. As the Fletcher case illustrates, although it might appear at first blush that even registration requirements are unnecessary, some of the experience in the long distance industry suggests that maintaining some ability to screen for, and take action against, abusive operators is necessary. See *Id.*

150. Technical feasibility might, for example, be affected by spectrum capacity or network management requirements.

151. The manifestation of market power of most concern would be what the FCC has termed, "Bainian" market power, i.e., the ability "to raise prices by increasing its rivals' costs or by restricting its rivals' output through the carrier's control of an

The FCC, however, also seeks to ensure that entrants have incentives to invest in their own facilities, and therefore it also weighs unbundling's effect on facilities investment.¹⁵² This is the first major threshold point at which legislators or regulators must determine whether the cable model of strong proprietary control of platforms or the common carrier model of highly constrained control will predominate.

With or without required facilities unbundling, the next question is whether to require transmission across the facilities to be sold separately from applications and content. This might be a *Computer II*-like requirement that transmission capacity be made separately available from applications. Again, there seems little need for such a requirement in a fully competitive market. With respect to facilities providers with market power, as Werbach points out, the question centers on the extent to which facilities providers can use their control of facilities to determine which applications can ride on those facilities, and the extent to which such control is necessary to provide adequate incentives for facilities investment.¹⁵³ Market power, however, will exist in degrees, and a significant question for regulators is how to ad-

essential input, such as access to bottleneck facilities, that its rivals need to offer their services." See Review of Regulatory Requirements for Incumbent LEC Broadband Telecomm. Servs., *Notice of Proposed Rulemaking*, 16 F.C.C.R. 22745, at ¶ 28 (2001). Because the FCC has most often considered dominance in the context of whether tariff requirements should apply, it has generally not examined whether providers could have joint market power stemming from coordinated interactions. See COMMISSION OF THE EUROPEAN COMMUNITIES, COMMISSION WORKING DOCUMENT ON PROPOSED NEW REGULATORY FRAMEWORK FOR ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES, DRAFT GUIDELINES ON MARKET ANALYSIS AND THE CALCULATION OF SIGNIFICANT MARKET POWER UNDER ARTICLE 14 OF THE PROPOSED DIRECTIVE ON A COMMON REGULATORY FRAMEWORK FOR ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES, COM (2001) 175 final, §3.1.2 (Mar. 28, 2001), available at <http://europa.eu.int/ISPO/infosoc/telecompolicy/en/com2001-175-5en.pdf> (last visited Aug. 28, 2002).

152. See Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecomm. Act of 1996, Deployment of Wireline Servs. Offering Advanced Telecomm. Capability, *Notice of Proposed Rulemaking*, 16 F.C.C.R. 22781, 22791-22793, at ¶¶ 22-30 (2001); see also W. Kenneth Ferree, Speech at the Broadband Outlook 2002 Conference (Jan. 23, 2002), available at www.fcc.gov/csb/broadband_jan23.html. An excellent overall summary of the various dimensions to the policy debate over unbundling is contained in Chapter 5 of the National Research Council's report, *Broadband: Bringing Home the Bits*. See COMPUTER SCI. & TELECOMMS. BD., NAT'L RESEARCH COUNCIL, BROADBAND: BRINGING HOME THE BITS 167-215 (2002), available at <http://books.nap.edu/books/0309082730/html/167.html#pagetop> (last visited Aug. 28, 2002) [hereinafter BRINGING HOME THE BITS].

153. Werbach, *supra* note 144, at 67-67; see also Cooper, *supra* note 85; see generally BRINGING HOME THE BITS, *supra* note 152, at 167-215.

dress markets that are no longer monopolies, but in which there are only a very few facilities providers.¹⁵⁴

There is also another dimension to the issue of how much control the physical layer exerts over other layers, and that is control over content itself. The greatest fear articulated by cable open access proponents is that the network operator (the operator of the physical and logical layers) will use that control to favor or disfavor specific content.¹⁵⁵ Assuming that it is actually technically possible, control of content would be antithetical to the concept of common carriage, but it is inherent in the notion of electronic publishing through information services or even the selection of cable services to provide over a cable system.¹⁵⁶ Regulators will have to decide which model prevails on the physical and logical layers of the information platform, one that transmits without regard to content, or one that is content-specific.

At least two other questions also emerge from the facilities providers' potential ability to control applications and content. The first is whether and to what extent facilities providers can limit the types of equipment that attach to the networks. Cable and telephone equipment regulation generally places strict limits on network facilities providers' ability to constrain the equipment that can be attached to the network.¹⁵⁷ A related issue is the extent to which a network provider can control the type of equipment connected to the network by controlling the transmission of information to that equipment across the network. A recent example of this issue comes from analog broadcasting, in which the FCC held that its rules did not prohibit a cable operator from screening out certain information carried in broadcast signals that enabled the use of electronic programming guide services unaffiliated with the cable operator.¹⁵⁸ In that case,

154. As discussed *supra* note 151, the FCC has not embraced the European Union's concept of joint market power.

155. See LESSIG, *supra* note 144, at 158.

156. This is, of course, an overgeneralization of the common carrier rules. Common carriers, for example, generally take steps to prevent the transmission of obscene materials over their facilities.

157. See, e.g., 47 U.S.C. §§ 544(a), 549 (2000); 47 C.F.R. § 68 (2000).

158. See Gemstar Int'l Group, Ltd. and Gemstar Dev. Corp., Petition for Special Relief, Time Warner Cable, Petition for Declaratory Ruling, *Memorandum Opinion and Order*, 16 F.C.C.R. 21531 (2001). Gemstar operates electronic programming guides. The Gemstar guides use information provided in the vertical blanking interval of the television signal, which is an area between picture images. Time Warner stripped the Gemstar information from the broadcast television signal into which it had been embedded. When Gemstar complained to the FCC, Time-Warner argued that it was not compelled to transmit this information under the "must-carry" rules, and therefore had the ability to strip out the information in the absence of a carriage agreement with Gemstar. The FCC agreed with Time-Warner.

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control of the physical layer was extended to the application layer by using control of the physical layer to filter content.

At both the physical and applications layers, another issue is the question of interconnection, specifically, when the government will mandate interconnection and on what terms. In the context of common carrier regulation today, Congress and the FCC have addressed market power concerns by mandating and regulating incumbent LEC interconnection, and even mandating interconnection of carriers that lack market power.¹⁵⁹

The source of potential market power that these interconnection mandates address is the network effect. Network effects are common: many music stores, for example, no longer carry LPs or cassette tapes because the vast majority of the customer base has migrated to CDs. In the world of telecommunications networks, the network effect is Metcalfe's Law — the usefulness, or utility, of a network equals the square of the number of users. If enough users are on a dominant network, it becomes infeasible for a user to be on any other network, unless the two networks are interconnected. The network effect is a source of market power distinct from control of underlying bottleneck facilities. The Department of Justice's and European Union's consideration of the proposed Worldcom/Sprint and MCI/Worldcom mergers, as well as the Department of Justice's disposition of Worldcom's acquisition of Intermedia, demonstrates that antitrust authorities have concerns about network market power at far lower levels than the large market share of incumbent LECs in today's telephony markets.¹⁶⁰ The Internet backbone markets show, however, that charging some entities for interconnection while others receive bill-and-keep or peering arrangements is not per se anticompetitive, and that differences in network scope justify dif-

159. See 47 U.S.C. § 251(a) (2000).

160. See Complaint of United States at 14-15, *United States v. Worldcom & Sprint*, (D.D.C. filed June 27, 2000) (Civil Action No. 1:00 CV 01526) (alleging that a combined 53% share of Internet traffic sent to or from customers of the 15 largest Internet backbones in the United States would be anticompetitive). Among the concerns leading the Department of Justice to conclude that the Sprint/Worldcom merger would be anticompetitive was the potential for "tipping" because of an alleged ability of the larger network in the context of rapid growth in Internet traffic to discriminate against other networks in interconnection. *Id.* at 16-20. See also Complaint of United States at 11, *United States v. Worldcom and Intermedia*, (D.D.C. filed Nov. 17, 2000) (Civil Action No. 1:00 CV 02789) (alleging that the combination of Worldcom and Intermedia backbones, which was less than the proposed Worldcom/Sprint combination, could have led to anticompetitive harms due to "tipping"); see also the European Commission's decision in Commission Decision Case No. IV/M.1069 1999 O.J. (L 116) (May 4, 1999), available at http://europa.eu.int/eur-lex/pri/en/oj/dat/1999/l_116/l_11619990504en00010035.pdf.

ferences in treatment.¹⁶¹ Likewise, regulatory disputes over CLEC access charges show the pitfalls of mandates on carriers to deliver traffic without regard to the price charged by the interconnecting network.¹⁶²

Some lessons emerge from these various interconnection cases. First, when a single provider's network becomes large enough, "tipping" is a problem that must be addressed either through regulation or divestiture to a competing network. Second, when the largest networks lack sufficient market power to lead to tipping, the market can generally work to create a rational solution, provided that government has not intervened in some other way to alter the negotiating positions of the parties. Third, when government does intervene, such as it did by allowing CLECs to require interexchange carriers to interconnect under binding tariffs and then forbidding interexchange carriers from refusing to deliver traffic, the government faces a choice — either more regulation or deregulation.¹⁶³

Moving fully into the applications level, this is the level at which applications are actually sold to consumers. At this level, either general or sector specific regulation of consumer fraud and misrepresentation, as well as protecting the consumer privacy interests, are necessary, if industry self-regulation is insufficient. Consumers, for example, need protection against slamming (unauthorized provider switching) regardless of the type of the transmission format or the network providing their voice telephone service. Likewise, consumer calling records (or purchases of video services and pay-per-view movies) should be

161. MICHAEL KENDE, *THE DIGITAL HANDSHAKE: CONNECTING INTERNET BACKBONES* 18 (FCC, OPP Working Paper No. 32, Sept. 2000), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp32.pdf (last visited Aug. 29, 2002).

162. Access Charge Reform, Reform of Access Charges Imposed by Competitive Local Exchange Carriers, *Seventh Report and Order and Further Notice of Proposed Rulemaking*, 16 F.C.C.R. 9923 (2001).

163. With respect to CLEC access charges, the FCC chose more regulation rather than deregulation. *See id.* The FCC's decisions with respect to intercarrier compensation for ISP-bound traffic provide yet another example of the FCC choosing regulation over deregulation. Even if intercarrier compensation rates were cost-based rates, the FCC tentatively concluded that it would be better to move to a regulatorily-mandated bill-and-keep interconnection scheme, in order to prevent shifting the recovery of cost-based intercarrier compensation charges between heavy internet users and non-users. The shift in cost recovery, however, occurred as a result of retail rate averaging and flat rate retail pricing structures, which were themselves regulatory mandates. *See Implementation of the Local Competition Provision in the Telecomms. Act of 1996, Intercarrier Comp. for ISP-Bound Traffic, Order on Remand and Report and Order*, 16 F.C.C.R. 9151, 9182-83 (2001); *Developing a Unified Intercarrier Comp. Regime, Notice of Proposed Rulemaking*, 16 F.C.C.R. 9610, 9634 (2001).

protected from disclosure regardless of whether the provider uses a circuit switched network, a cable network or VoIP. While these consumer protection requirements on retail services may vary by application, they should not vary according to the technology used to deliver the application.

At the application level, we must also confront the issue of retail rate regulation. The only application that still has significant retail rate regulation is voice telephony. It is not at all clear that there is a compelling reason to continue retail rate regulation of voice telephony, provided that unbundling and resale policies are designed correctly at lower levels of the network and can actually be provisioned. Market pricing issues should be addressed with unbundling and resale policies. If, for example, incumbent telephone networks are unbundled sufficiently so that entrants do not have to incur large entry costs, and facilities operators can provision those elements rapidly, inexpensively and in substantial volumes, competition alone should be able to quash a significant, non-transitory increase in the application's price.¹⁶⁴

Indeed, retail rate regulation can frustrate policy choices made with respect to unbundling or resale at other network layers. If, for example, regulators limit unbundling in order to promote facilities investment, those incentives are muted (and the trade-off with promoting competition lost) if application rate regulation reduces the increased returns on investment that greater exclusivity should provide.

At the very least, rate regulation – including requirements that rates not vary between users other than as justified by differences in underlying cost – should be eliminated for application providers that truly lack market power. This would reflect the de facto reality that already exists with respect to contract tariffs and detariffed service arrangements, i.e., that services are individually negotiated and reflect the relative bargaining power of the contracting parties rather than any real measure of costs. This change would allow the market to innovate new ways of selling competitive services, such as bandwidth trading, free from a regulatory classification “overhang.”

164. If, on the other hand, entrants must undertake large capital and time intensive investments, such as building loops, before they can enter, or if they cannot obtain rapidly provisioned, high volumes of unbundled loops to connect to their switches at a relatively low cost per cutover, competition will be hampered and will be much less likely to constrain a significant, non-transitory increase in price.

Retail rate deregulation would greatly rationalize prices.¹⁶⁵ If pricing decisions were left to the market, it is unlikely that we would see today's pricing quirks continue. For example, although differences in residential and business lines prices could develop in a competitive market, it seems unlikely that analog residential lines would consistently remain half the price of analog lines to the adjacent business.¹⁶⁶ Likewise, it is highly unlikely that the marketplace would yield lower monthly rates in high cost areas with low teledensity than in low cost areas with high teledensity, as is the case today under some state rate design schemes.¹⁶⁷ Market based pricing would improve the financial conditions for efficient investment in underlying physical facilities.

Universal service concerns relating to the capability of citizens, particularly in rural areas, to engage in ubiquitous, real-time communications must also be addressed at the application level, as these concerns are intertwined with retail pricing policy. As the Clinton Administration recognized in its Title VII proposal, any overhaul of the regulation of information platforms must address the issues surrounding universal network access. The Communications Act provides the regulators with some of the necessary core tools by authorizing the creation of universal service funds to preserve universal service.¹⁶⁸ But the 1996 Act avoided hard choices, never actually defining with any specificity the services meant to be covered by universal service, never articulating the degree to which Congress contemplated that the FCC could shift money from consumers of lower cost states to higher cost states, and never articulating a consensus that the FCC should preempt state practices, such as value of service pricing, that reduce monthly local telephone prices in many rural areas not just below cost, but also below urban rates.¹⁶⁹

165. Here I deliberately distinguish retail rates charged to end users from rates charged to other carriers, whether through resale, unbundled network elements or access charges. As discussed previously, deregulation of inputs supplied to competitors raises other competitive issues.

166. See TRENDS IN TELEPHONE SERVICE, FCC INDUSTRY ANALYSIS DIVISION 14.1-14.2 (2001). According to the FCC, the average urban monthly residential subscription rate for unlimited local telephone service was \$20.78 in 2001. See FCC, FCC RELEASES STUDY ON TELEPHONE TRENDS 2 (2002), available at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/trend502.pdf. By contrast, the average urban monthly subscription rate for a one-line business was \$41.80. See *id.*

167. See generally NAT'L ASS'N OF REGULATORY UTIL. COMM'RS, LOCAL EXCHANGE RATES (1999) (on file with author).

168. 47 U.S.C. § 254(e)-(f) (2000).

169. The FCC has never addressed whether it can preempt such practices as barriers to entry under Section 253. See 47 U.S.C. § 253(a)-(b) (2000).

The keys to universal service reform have been outlined by economists and by the FCC itself: reduce unnecessary subsidies, for example, by bringing rural rates up to urban levels, and letting all rates increase modestly so long as significant numbers of subscribers do not start dropping service; provide additional assistance to low income consumers to ensure that rate increases do not cause the most vulnerable to lose service; provide universal service support through explicit, transparent mechanisms available to all competitors rather than through rate manipulations, and target support to where it is needed most.¹⁷⁰ The difficulty is not in determining the prescription, but in developing the political will to carry it out.¹⁷¹

The flip side of creating universal service support is: how do we pay for it? Assuming that this subsidy is not paid from general tax revenues, two alternatives generally emerge – contribution from providers based on revenues or contributions based on network connections (i.e. end user “lines”). Neither is perfect, and both have definitional challenges. A layered-approach, however, helps to frame the issues.

170. The FCC’s orders implementing comprehensive universal service reform and access charge restructuring for price cap and rate-of-return dependent ILECs are examples of reform plans combining increased explicit universal service funding with a reduction of previously subsidizing rates. This reduction of the total amount of subsidy by increasing end user charges was accomplished in the FCC’s order implementing comprehensive universal service and an access charge rate restructuring plan for ILECs regulated under price caps. See Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Low-Volume Long Distance Users, Fed.-State Joint Bd. on Universal Serv., *Sixth Report and Order*, 15 F.C.C.R. 12962, 13028 (2000), *aff’d in part and rev’d in part sub nom.*, Texas Office of Pub. Util. Counsel v. FCC, 265 F.3d 313 (5th Cir. 2001); Multi-Ass’n Group (MAG) Plan for Regulation of Interstate Servs. of Non-Price Cap ILEC’s and Interexchange Carriers, *Second Report and Order and Further Notice of Proposed Rulemaking*, 16 F.C.C.R. 19613 (2001).

There is also little evidence that increasing end user rates to reduce subsidies in long distance rates hurts telephone subscribership. The FCC has monitored telephone subscribership ever since it first implemented monthly interstate end user charges in 1984. Subscribership has consistently increased since 1984, even as monthly interstate end user charges have also increased. See Alexander Belinfante, *FCC Telephone Subscribership in the United States*, available at <http://fcc.gov/web> by following the link to “Miscellaneous Reports”, leading to http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_link/IAD/Subs0701.pdf (Feb. 2002); see also ROBERT CRANDALL & LEONARD WAVERMAN, WHO PAYS FOR UNIVERSAL SERVICE? 105-128 (2000).

171. See Michael H. Riordan, *An Economist’s Perspective on Universal Residential Telephone Service*, in THE INTERNET UPHEAVAL: RAISING QUESTIONS, SEEKING ANSWERS IN COMMUNICATION POLICY 309 (Ingo Vogelsang & Benjamin Compaigne eds., 2000) (describing a hypothetical discussion between an economist and a politician regarding pricing for residential telephone services and offering an economic rationale that seeks to overcome the traditional political obstacles).

The first alternative is to base contributions on revenues. This is consistent with the current universal service program, where the formula is based on “contributors’ interstate and international revenues derived from domestic end users for telecommunications or telecommunications services.”¹⁷² It is difficult to see how this system can fit with a layered approach to regulation. Just the task of determining the revenue base requires apportioning revenues among applications such as voice telephony that are converging between and among platforms, and that may be bundled with other applications when sold to end users.

The second alternative is a connection-based approach, which holds the promise of moving universal service contribution into a layered approach by emphasizing the physical layer. A connection need not be a telecommunications service connection, an information service connection, or a video connection. A connection can be any connection to an information platform that interconnects with other information platforms. Thus, while a connection-based approach to contribution also faces definitional issues, it has the potential to provide a funding base that is more consistent with the convergence of the information platform.

Moving to the content layer, there are really two sets of issues. First, control of content can create competitive issues. Since 1992, FCC rules have prohibited vertically integrated cable operators from entering into exclusive contracts with affiliated programmers without first obtaining an FCC determination that the exclusive contract is in the public interest.¹⁷³ These rules address a competitive concern about the use of control of programming to stifle competition among applications providers.¹⁷⁴ Control of content was a way to stymie the growth of competition at the physical and applications layers.

Second, policymakers have long sought to create some privileged speakers or forms of content. At their best, these policies allow voices to speak that might not otherwise be heard. At worst, they are interest-group driven appropriation of bandwidth without investment. It is at this level that these policies must be fought out. If there is to be a universal service policy of creating

172. 47 C.F.R. § 54.709(a)(1) (2000).

173. 47 U.S.C. § 548 (2000).

174. The FCC extended these rules through 2007, finding that “vertically integrated programmers retain the incentive to favor their affiliated cable operators over competitive MVPDs such that competition and diversity in the distribution of video programming would not be preserved and protected.” Implementation of the Cable Television Consumer Protection and Competition Act of 1992, *Report and Order*, 17 F.C.C.R. 12124, 12125 (2002). In the absence of FCC action, the rules would have been subject to statutory sunset on October 5, 2002.

universal access to information, the convergence of information platforms at least holds out the possibility that this can be accomplished by supporting access to the applications rather than by mandating content.

Finally, in addition to eliminating categories based on physical platforms, Congress must make a substantial change in the current division of labor between the federal government, states, and local governments in regulating information platforms. This, too, should be looked at functionally, recognizing that the federal government is generally not as good at applying regulatory standards to local situations or conducting detailed application of rules to specific facts. On the other hand, the federal government is good at setting an overall policy framework and set of objectives, and the FCC is institutionally well-suited, because it is independent from Congress and psychologically distant from local or state politics, to play the “bad cop” in forcing necessary, but politically unpalatable reforms. In particular, this would entail expanding the FCC’s “forbearance” authority to allow it to preempt unnecessary state and local regulation of information platforms when those regulations do not rise to the level of barriers to entry.

None of this is meant to suggest that the next stage of communications reform will be easy. One of the core problems with the Clinton Administration’s Title VII proposal was that the proponents did not lay the groundwork necessary to initiate change. As communications companies struggle with the constraints of pigeonhole regulation, the impetus for change is, however, likely to grow on its own.

V. CONCLUSION

The current communications policy regime and division of labor between federal, state and local governments relies on an archaic classification of communications services into regulatory pigeonholes that cannot survive. As legislators and regulators begin to consider solutions, the layered approach is the logical starting point. After that, Congress will have to address a difficult set of policy choices embodying economic principles and public values, as well as fundamental choices about reassigning governmental roles.

Serious reexamination of communications policy has been slow to start, and needs to get underway. The longer Congress postpones earnest debate, the more likely it is that it will either be legislating in the face of a crisis, or regulators will come under

pressure to slow the pace of marketplace change by imposing unsavory new regulatory burdens on heretofore lightly or unregulated services.

REGULATING INFORMATION PLATFORMS: THE CONVERGENCE TO ANTITRUST

STEVEN SEMERARO*

INTRODUCTION

Technological methods of transmitting information, i.e. information platforms, are thought to pose significant regulatory challenges. The markets in which telecommunications and other information services firms compete are associated with natural monopoly tendencies and powerful network effects that make some cooperation among competitors essential to consumer welfare. The importance of protecting intellectual property rights and the pervasiveness of free speech concerns pose additional challenges. As a result, the prevailing wisdom has been that free market forces, coupled with antitrust enforcement, cannot maximize consumer welfare in information platform markets without substantial industry-specific regulatory assistance.

Historically, various forms of command and control regulation were employed to govern information platform industries. But over the last forty years, there has been a developing trend toward regulation that seeks to facilitate competition in information platform markets rather than dictate outcomes.¹ To date, these efforts have drawn on at least four distinct sources of law: (1) antitrust; (2) intellectual property; (3) free speech; and (4) industry specific regulation, such as the Telecommunications Act of 1996, which incorporates aspects of the other three.²

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1. See generally STEVEN SEMERARO, *Telecommunications Law: The U.S. Model For Economic Regulation of Telecommunications Providers*, in UNESCO ENCYCLOPEDIA OF LIFE SUPPORT SYSTEMS 6.31 (Aaron Schwabach, ed., forthcoming 2003).

2. Examples of provisions of the 1996 Act that incorporated these other sources of law include 47 U.S.C. §§ 251-252 (seeking to spur competition among carriers); 47 U.S.C. §251(d)(2) (requiring greater protection for proprietary intellectual property than for non-proprietary network elements); and 47 U.S.C. § 254 (seeking to ensure universal access to information platforms). 47 U.S.C. §§ 251-254 (Supp. V 1999).

By placing faith in the competitive process and recognizing the enhancement of consumer welfare as the regulatory goal,³ a unified approach to the regulation of information platforms may be found in a rather surprising place: within the existing body of antitrust law. In most industries, antitrust is the exclusive source of economic regulation. This essay defends the thesis that antitrust could also serve as the sole regulatory agent in information platform markets.

To be sure, the notion that antitrust alone could and should shoulder the burden of ensuring that information platforms serve consumer interests is more provocative than programmatic. Particularly with respect to free speech, considerable work would be needed to develop and implement the legal doctrine. But the idea of distilling this doctrine from the existing antitrust laws rather than industry-specific regulation is worth exploring. The regulatory power of existing antitrust mechanisms is widely underestimated, and the existing alternatives have proven to be largely ineffective. In the end, the practical difficulties of implementing a regulatory system relying entirely on antitrust may be overcome by enabling the same federal and state agencies to oversee the industry.⁴ Only now, they would

3. While the specific parameters of antitrust enforcement continue to evolve, there are few who continue to question the basic premise of the Chicago School approach to antitrust: “[T]he only legitimate goal of antitrust is the maximization of consumer welfare.” ROBERT BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* 7 (NY Free Press 1993) (1978) (emphasizing the connection between consumer welfare and efficiency). See also Robert H. Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged*, 34 *HASTINGS L.J.* 65, 68 (1982) (expanding the concept of consumer welfare to include transfers of wealth between consumers and firms with market power). For the purposes of this article, consumer welfare means a belief that the goods and services innovated, produced, and distributed in a competitive marketplace will maximize the utility of the consuming public. If social engineering to directly dictate certain results – e.g. restrictions on pornographic websites, Internet access for schools – that might not emerge from the free play of marketplace forces is the intended goal of information platform regulation, antitrust alone will not suffice.

4. As Joel Klein explained in a speech shortly after the enactment of the 1996 Telecom Act, there are reasons to keep all of the existing regulatory players in the process:

This mix of players, I would suggest, sensibly reflects the fact that telephone regulation has historically been a shared function of the FCC and the state agencies and, quite naturally, both of them are necessary to the deregulatory process as well. And we [the Antitrust Division] also belong there, essentially because the goal of the process is competition and we have expertise in that area generally and with respect to telephony, in particular, because of our extensive involvement in the AT&T case.

Joel I. Klein, *Preparing for Competition in a Deregulated Telecommunications Market*, Speech at the Glasser Legalworks Seminar (Mar. 11, 1997), available at <http://www.usdoj.gov/atr/public/speeches/1070.htm> (last visited Aug. 8, 2002). In contrast to the proposal advanced here, some commentators have proposed eliminating the

look to the broadly drafted antitrust laws and principles of consumer welfare instead of the more precise language typical of industry-specific regulation. And litigation—and the threat of litigation—would be their primary regulatory tools.

Section I of this essay explores the ability of antitrust to generate solutions to competitive problems of the type often feared in information platform markets. Section II debunks the persistent notion of conflict between the antitrust laws and the intellectual property laws, and explains how antitrust might ensure adequate incentives to innovate without reference to intellectual property doctrine. Section III shows that First Amendment concerns should be largely ameliorated when consumer-welfare-enhancing regulation is driven by antitrust, and it explores how antitrust regulation might also further free speech values more generally. Section IV explores reasons to doubt that industry-specific legislation can improve on traditional antitrust regulation. And Section V responds to the criticism that relying on antitrust would produce substantively inferior and undemocratic regulation.

I. A FULLY REALIZED INTERPRETATION OF ANTITRUST DOCTRINE

Antitrust suffers from a disconnect between what it is and what lawyers, even knowledgeable ones in the field, think it is when they discuss it in general terms. Even the most knowledgeable antitrust scholars and practitioners tend to understand antitrust as legal doctrine that requires competition and privileges unilateral decisions to deal with particular customers, suppliers, and competitors. Of course, it does all that, and because of that many have questioned whether antitrust is really nimble enough to successfully address the complex consumer welfare issues arising in information platform industries.⁵ Cooperation among firms in standard setting, business practices, and even in the use of facilities is essential to achieving the full consumer

FCC. See PETER HUBER, *LAW AND DISORDER IN CYBERSPACE: ABOLISH THE FCC AND LET COMMON LAW RULE THE TELECOSM* 7 (1997). The proposal advanced here does rest on a similar affinity for the common law character of antitrust. *Id.* at 8. But I also envision an important role for government enforcers that contrasts with Huber's vision.

5. See Robert Pitofsky, *Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property*, 68 *ANTITRUST L.J.* 913, 913-14 (2001) (recognizing and criticizing the view that antitrust law designed for nineteenth century economic problems cannot deal with twenty-first century challenges by comparing the argument to the claim that the First Amendment should not be applicable to modern media because it differs from the pamphleteering prevalent when the amendment was adopted).

welfare benefits that information platforms have to offer.⁶ If antitrust cannot require that sort of cooperation, it alone cannot provide a fully effective regulatory agent for information platform markets.

For at least a dozen years, however, federal and state antitrust enforcement officials, the antitrust plaintiffs' bar, and even the courts have pursued a regulatory-like approach to antitrust enforcement that recognizes its ability to compel cooperation that is essential to consumer welfare. The current approach sees antitrust as a flexible instrument that prohibits *not* certain types of behavior but any behavior that produces certain economic effects.⁷ When the behavior has an adverse impact on consumer welfare, antitrust should prohibit it.⁸ Although there are exceptions and enforcement officials may need to think creatively about which provision of the antitrust laws best fits the case, the working assumption is that antitrust prohibits any restraint of trade that reduces consumer welfare.

Antitrust is thus best understood as a form of economic regulation that relies on broadly-drafted, consumer-welfare-enhancing statutes rather than highly specific legislation. The critical

6. See generally Mark A. Lemley, *Antitrust and the Internet Standardization Problem*, 28 CONN. L. REV. 1041, 1056 (1996).

7. As explained below, this approach to antitrust flows comfortably from nearly a century of case law. One *does* need to reject, however, the antitrust philosophy propounded by Robert Bork in THE ANTITRUST PARADOX and perhaps pursued at least in the dreams of those who idealize antitrust enforcement during the Reagan administration. BORK, *supra* note 3. This approach can be described as a prosecutorial approach to antitrust. Competition law, according to this view, is a set of relatively straightforward prohibitions that developed from the early judicial opinions of the Sherman Act. The role of the antitrust enforcer – like a criminal prosecutor – is to identify those violations and prosecute the offenders.

8. The Court has identified a “gap” in the Sherman Act. “An unreasonable restraint of trade,” the Court has said, “may be effected not only by two independent firms acting in concert; a single firm may restrain trade to precisely the same extent if it alone possesses the combined market power of those same two firms.” *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752, 775 (1984). The Sherman Act, however, does not prohibit all restraints on trade. Instead, it outlaws only those restraints that are the product of agreement or monopoly. The Court has thus concluded that the Act “leaves untouched a single firm’s anticompetitive conduct (short of threatened monopolization) that may be indistinguishable in economic effect from the conduct of two firms subject to § 1 liability.” *Id.* As a practical matter, however, this gap is quite narrow. Given relatively broad definitions of conspiracy and monopoly, most conduct that really threatens consumer welfare could be attacked under the Sherman Act. And, in all events, Section 5 of the FTC Act presents an alternative that could be used to fill whatever gap may remain. 15 U.S.C. § 45 (2000); see PHILLIP E. AREEDA & HERBERT HOVENKAMP, 2 ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 305e at 13 (Little, Brown rev. ed. 1995); Pitofsky, *supra* note 5, at 922-23 (citing examples of ways in which intellectual property holders may harm competition and presumably violate the antitrust laws).

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difference between antitrust and other forms of economic regulation lies not in who enforces it—because the same agencies can (and to some extent already do) enforce both. Nor does it lie in how large a role litigation plays—because litigation plays a prominent role in any form of economic regulation.⁹ Instead, the difference lies in the source of agency authority and how it gets implemented. Congress typically provides more precise language in industry-specific legislation than it has in the antitrust laws. As a result, industry-specific legislation is characterized by *ex ante* rules while antitrust is characterized by *ex post* analysis of the consumer welfare effects of a competitor's business practices.

This competition-enhancing regulatory approach to antitrust is decidedly not a case of bureaucrats and ambulance chasers run amok. Instead, it rests firmly on modern economic principles brought to light by the Chicago School. Those commentators illuminated antitrust's true character as a consumer welfare enhancing statute by emphasizing that it does not blindly mandate rivalry.¹⁰ Rather, it requires competition only to the extent that competition serves consumer interests. In cases where rivalry would hurt consumers, or leave them unaffected, antitrust should have no role.

By establishing the goal of antitrust as consumer welfare, the Chicago School sharpened our perception. But for some, the analytical advances seem to have stopped short. While virtually everyone now understands that antitrust does not require rivalry for rivalry's sake when consumers would not benefit, many have failed to take the logical next step—recognizing that antitrust imposes positive obligations to cooperate when cooperation is essential to enable the sort of rivalry that will most benefit consumers. Instead, the dominant belief continues to be that antitrust imposes only negative duties.¹¹

While this formulation of antitrust suggests a recent transformation, in reality the case law dating back nearly a century includes many examples in which firms have been required to

9. Both the 1993 Cable Act and the 1996 Telecom Act led to massive litigation that took years to resolve.

10. See, e.g., Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984).

11. See *Goldwasser v. Amertitech Corp.*, 222 F.3d 390, 400 (7th Cir. 2000) (explaining that, generally “affirmative duties to help one’s competitors . . . do not exist under the unadorned antitrust laws”); *USM Corp. v. SPS Technologies, Inc.*, 694 F.2d 505, 513 (7th Cir. 1982) (Posner, J.) (“There is a difference between positive and negative duties, and the antitrust laws, like other legal doctrines sounding in tort, have generally been understood to impose only the latter.”).

cooperate with their competitors in order to facilitate competition. The traditional starting points are *Terminal Railroad*, where the Court required the owners of a bridge across the Mississippi to permit competitors to use it,¹² and *Associated Press*, where the Court required that a newsgathering agency be opened to the competitors of its existing members.¹³ In *Lorain Journal*,¹⁴ the Court compelled a newspaper to accept advertising from firms that also advertised with a competing radio station, a remedy that indirectly mandated cooperation. A more direct example of compulsory cooperation is *Otter Tail Power*, in which the Court required a natural monopoly over electric power transmission to cooperate with a competitor at the distribution level.¹⁵ And in *Aspen Skiing*, the Court required a ski mountain operator to cooperate with a competitor by selling tickets allowing skiers to choose to ski on any mountain.¹⁶

The breakup of AT&T's monopoly over telephone service is a prime modern example. MCI, as a private plaintiff, and the Department of Justice obtained an antitrust remedy that compelled the divested AT&T local operating companies to deal on equal terms with all competitive long distance providers.¹⁷ The Microsoft case will also certainly yield cooperative remedies.¹⁸

While this understanding of the scope of antitrust is not new, the analytical tools for applying it are sharper now than they have ever been. Antitrust comprehends a restraint of trade as either an act or an omission that restrains the ability of other firms to compete and reduces overall consumer welfare in comparison with a *but for* world in which the competitor did not restrain trade. The remedy may be either a negative command to stop a certain activity or a positive duty to cooperate in a certain way.

This regulatory approach to antitrust does not compel a dramatic expansion of the so called *essential facilities* doctrine. In-

12. *United States v. Terminal R.R. Ass'n*, 224 U.S. 383 (1912).

13. *Associated Press v. United States*, 326 U.S. 1 (1945).

14. *Lorain Journal Co. v. United States*, 342 U.S. 143 (1951).

15. *Otter Tail Power Co. v. United States*, 410 U.S. 366 (1973).

16. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985).

17. *MCI Communications Corp. v. AT&T Co.*, 708 F.2d 1081 (7th Cir. 1983) (holding that local distribution facilities were "essential facilities" and therefore AT&T must provide MCI access to them); *United States v. AT&T Co.*, 552 F. Supp. 131 (D.C. 1982), *aff'd mem. sub. nom.*, *Maryland v. United States*, 460 U.S. 1001 (1983) (upholding consent decree imposing on AT&T the duty to share access to local telephone networks with competitive long distance providers).

18. See *United States v. Microsoft Corp.*, Revised Proposed Final Judgment, available at <http://www.usdoj.gov/atr/cases/f9400/9495.pdf> (last visited Sept. 18, 2002).

deed, most of the leading cases cited above did not rely on that theory. Instead, antitrust condemns improper uses of market power to maintain or extend a dominant position either through an affirmative restraint of trade or a refusal to deal.¹⁹ This complete appreciation of the scope of antitrust not only lessens concern about the ability of antitrust to compel essential cooperation in information platform markets, but as addressed below, it also helps to overcome the notion that intellectual property principles must be incorporated into information platform regulation.

II. OVERCOMING THE PERSISTENT PARADIGM OF CONFLICT BETWEEN INTELLECTUAL PROPERTY AND ANTITRUST

From the dawn of modern antitrust, courts have struggled to accommodate the ostensibly conflicting laws designed to facilitate competition, on the one hand, and to stimulate the innovation of intellectual property, on the other. This paradigm of conflict and accommodation has ebbed and flowed over the

19. At the Silicon Flatirons Telecommunications Program conference at the University of Colorado School of Law on the potential convergence to antitrust in information platform regulation, Doug Melamed posed a hypothetical designed to show that the regulatory theory of antitrust proposed in this essay is more expansive than the antitrust laws as they are actually applied in the United States. Douglas Melamed, *The New Economy, Intellectual Property, and the Challenges for Antitrust*, Address Silicon Flatirons Telecommunications Program, University of Colorado School of Law (Apr. 4, 2001). He postulated a firm that implements an efficient innovation that is so successful that the firm then monopolizes an industry and thereby lowers consumer welfare. Cf. A. Douglas Melamed & Ali M. Stoeppelwerth, *The CSU Case: Facts, Formalism and the Intersection of Antitrust and Intellectual Property Law*, 11 *GEO. MASON L. REV.* 2 (forthcoming 2002) (manuscript at 15, on file with author) (“antitrust law . . . explicitly permits ancillary restraints that reduce competition ex post if they are reasonably related to a procompetitive venture ex ante.”). Melamed correctly concluded that the antitrust laws would not prevent the implementation of this innovation, because those laws respect market power that is gained industriously. He then suggested that the regulatory approach would impose antitrust liability because cooperation *would be essential to maximize consumer welfare*. The hypothetical does indeed generate a conflict. But it does so at the expense of an internal postulate of the antitrust laws: competition presumptively maximizes consumer welfare in both the short and long run. The hypothetical presupposes a market in which a firm could reduce long-run consumer welfare by adopting an efficient innovation, monopolizing the market, and then charging supra-competitive prices. Antitrust does not condemn such conduct because permitting industrious firms to reap the benefits of their industry creates incentives to innovate that in the long run presumptively benefit consumers. Because of those incentives, someone will build an even better mousetrap and consumers will benefit as a result in virtually every case. Melamed’s hypothetical therefore contradicts antitrust’s core assumption—that rewarding industry will in the long run benefit consumers—and the resulting conflict with the regulatory approach to antitrust should thus be extremely rare.

years.²⁰ But as with our understanding of antitrust generally, proponents of the Chicago School did much to reveal the common purpose of intellectual property and antitrust law—advancing consumer welfare.²¹

Following the Chicago School's lead, the antitrust enforcement agencies, virtually all commentators, and many courts now claim to reject both the notion that the antitrust and intellectual property laws conflict or that an intellectual property right necessarily confers market power on its holder.²² Both legal systems enhance consumer welfare.²³ The antitrust laws achieve that goal by ensuring that marketplace forces provide firms with

20. Willard K. Tom & Joshua Newberg, *Antitrust and Intellectual Property: From Separate Spheres to a Unified Field*, 66 ANTITRUST L.J. 167, 168-75 (1997).

21. See, e.g., WARD S. BROWN, PATENTS AND ANTITRUST LAW: A LEGAL AND ECONOMIC APPRAISAL 1 (1973); William F. Baxter, *Legal Restrictions on the Exploitation of Patent Monopoly: An Economic Analysis*, 76 YALE L.J. 267 (1966).

22. See, e.g., Timothy J. Muris, Competition and Intellectual Property Policy: The Way Ahead, Remarks at the American Bar Association Antitrust Section Fall Forum (Nov. 15, 2001), available at <http://www.ftc.gov/speeches/muris/intellectual.htm>. The recently appointed Chairman of the Federal Trade Commission explained:

The tensions between [antitrust and intellectual property doctrine] tend to obscure the fact that, properly understood, IP law and antitrust law both seek to promote innovation and enhance consumer welfare. . . . IP law, properly applied, preserves the incentives for scientific and technological progress – i.e., for innovation. Innovation benefits consumers through the development of new and improved goods and services, and spurs economic growth. Similarly, antitrust law, properly applied, promotes innovation and economic growth by combating restraints on vigorous competitive activity. By deterring anticompetitive arrangements and monopolization, antitrust law also ensures that consumers have access to a wide variety of goods and services at competitive prices.

Id. The enforcement agencies' IP guidelines explain:

The intellectual property laws and the antitrust laws share the common purpose of promoting innovation and enhancing consumer welfare. The intellectual property laws provide incentives for innovation and its dissemination and commercialization by establishing enforceable property rights for the creators of new and useful products, more efficient processes, and original works of expression. In the absence of intellectual property rights, imitators could more rapidly exploit the efforts of innovators and investors without compensation. Rapid imitation would reduce the commercial value of innovation and erode incentives to invest, ultimately to the detriment of consumers. The antitrust laws promote innovation and consumer welfare by prohibiting certain actions that may harm competition with respect to either existing or new ways of serving consumers.

UNITED STATES DEPARTMENT OF JUSTICE & FEDERAL TRADE COMMISSION, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY § 1.0 (1995) [hereinafter IPG]; see also *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990) (explaining that “the aims and objectives of patent and antitrust laws may seem, at first glance, wholly at odds [but] the two bodies of law are actually complementary as both are aimed at encouraging innovation, industry and competition”).

23. Tom & Newberg, *supra* note 20, at 173-75.

incentives to offer better products at lower prices.²⁴ Market power *per se* is not condemned. Indeed, the desire to obtain it drives competitors to improve their products, services, and production techniques, and thereby enhances consumer welfare. Antitrust condemns only improper uses of market power that harm consumers.

The intellectual property laws directly create incentives to innovate products and processes of higher quality that can be produced at lower prices.²⁵ Just as antitrust does not condemn market power *per se*, intellectual property doctrine does not create it. On the contrary, intellectual property law merely grants a property right that, like any property right, may be used to compete. In most cases, a patent or copyright creates no market power at all.²⁶ Just as potential substitutes exist for most types

24. *FTC v. Superior Court Trial Lawyers Ass'n*, 493 U.S. 411, 423 (1990) (explaining that “the Sherman Act reflects a legislative judgment that ultimately competition will produce not only lower prices, but also better goods and services. . . . This judgment recognizes that all elements of a bargain – quality, service, safety, and durability – and not just the immediate cost, are favorably affected by the free opportunity to select among alternative offers”); *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 4 (1958) (explaining that antitrust “rests on the premise that the unrestrained interaction of competitive forces will yield the best allocating of our economic resources, the lowest prices, the highest quality and the greatest material progress”).

25. *See* U.S. CONST. art. I, § 8, cl. 8 (declaring that federal patent and copyright law are intended “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries”); *Stewart v. Abend*, 495 U.S. 207, 229 (1990) (“The limited monopoly granted to the artist is intended to provide the necessary bargaining power to garner a fair price for the value of the works passing into public use.”); *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) (“[T]he limited grant is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired.”); *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480 (1974) (stating that patent laws promote this progress by “offering a right of exclusion for a limited period as an incentive to inventors to risk the often enormous costs in terms of time, research and development” and that the productive effort fostered by the patent laws has “a positive effect on society through the introduction of new products and processes of manufacture into the economy, and the emanations by way of increased employment and better lives for our citizens.”).

26. *See* IPG, *supra* note 22, at § 2.0 (“the Agencies do not presume that intellectual property creates market power in the antitrust context”); *id.* at § 2.2 (“Although the intellectual property right confers the power to exclude with respect to the *specific* product, process, or work in question, there will often be sufficient actual or potential close substitutes for such product, process, or work to prevent the exercise of market power.”). The guidelines define market power as “the ability profitably to maintain prices above, or output below, competitive levels for a significant period of time.” *Id.* at § 2.2. The guidelines note:

Market power can be exercised in other economic dimensions, such as quality, service, and the development of new or improved goods and processes. It is

of real property and chattels, substitutes usually exist for intellectual property. Regardless of the type of property, substitutes limit the ability of the property holder to exercise market power.²⁷ Given the common consumer welfare goal, antitrust can effectively regulate information platform markets without complicating references to intellectual property law so long as it takes full account of the long-run consumer welfare benefits of innovation that are achieved through strong intellectual property protection.

Despite these well understood principles, many lawyers and judges continue to perceive a conflict that compels antitrust courts to consider intellectual property doctrine in order to safeguard incentives to innovate. The following subsections identify the sources for that continuing perception and explain why neither the historical nor the practical concerns with antitrust's ability to protect incentives to innovate are legitimate bases to continue to privilege intellectual property over other property with respect to antitrust enforcement.

A. *The Persistent Notion of Conflict*

Leading scholars, lawyers, and judges, who surely recognize that market power arises from market conditions and not property rights, nonetheless cling to the belief that antitrust must tread lightly in intellectual property cases. Though they exploit the similarity of intellectual property and other forms of property to debunk the shibboleth that intellectual property necessarily creates market power, they are unwilling to treat intellectual

assumed in this definition that all competitive dimensions are held constant except the ones in which market power is being exercised; that a seller is able to charge higher prices for a higher-quality product does not alone indicate market power. The definition . . . is stated in terms of a seller with market power. A buyer could also exercise market power (e.g., by maintaining the price below the competitive level, thereby depressing output).

Id. at n.9.

27. In the courts, this issue remains unresolved. *Compare* *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 16 (1984) (expressing the view in dictum that if a product is protected by a patent, "it is fair to presume that the inability to buy the product elsewhere gives the seller market power") *with id.* at 37 n.7 (O'Connor, J., concurring) ("[A] patent holder has no market power in any relevant sense if there are close substitutes for the patented product."). *Compare also* *Abbott Labs. v. Brennan*, 952 F.2d 1346, 1354-55 (Fed. Cir. 1991) (no presumption of market power from intellectual property right), *cert. denied*, 505 U.S. 1205 (1992), and *In re Indep. Serv. Orgs.*, 203 F.3d 1322, 1325 (Fed. Cir. 2000) ("A patent alone does not demonstrate market power."), *with* *Digidyne Corp. v. Data Gen. Corp.*, 734 F.2d 1336, 1341-42 (9th Cir. 1984) (requisite economic power is presumed from copyright), *cert. denied*, 473 U.S. 908 (1985).

property like other forms of property when its owner does in fact possess market power.²⁸

For example, the courts in *In re Independent Service Organizations Antitrust Litigation*,²⁹ and *Townshend v. Rockwell International Corp.*,³⁰ appear to have declared that the anticompetitive effect of a patent or copyright holder's refusal to deal can never give rise to antitrust liability, unless the holder uses "his statutory right to refuse to [deal] to gain a monopoly in a market beyond the scope of the patent."³¹ The courts in these cases suggest that the concept of the scope of the patent defines an antitrust immunity for intellectual property holders that applies irrespective of the effect of the intellectual property holder's conduct on consumer welfare.³² A court need not even consider the

28. See Mary L. Azcuenaga, *Recent Issues in Antitrust and Intellectual Property*, 7 B.U. J. SCI. & TECH. L. 1, 7 (2000) (quoting the guidelines' statement that "market power 'does not impose on an intellectual property owner an obligation to license the use of [its] intellectual property to others.'"); Tom & Newberg, *supra* note 20, at 174-75 (explaining why a territorial restriction in a patent license would likely pass muster under ordinary antitrust analysis and concluding that "it would . . . be unnecessary to resort to the patent laws as a 'trump' that exempts the licensor's conduct from application of the antitrust laws," but stopping short of concluding that no such power to trump should exist).

29. *In re Indep. Serv.*, 203 F.3d 1322.

30. *Townshend v. Rockwell Int'l Corp.*, 2000-1 Trade Cas. (CCH) ¶ 72,890 (N.D. Cal. 2000).

31. *In re Indep. Serv.*, 203 F.3d at 1327. The court further states, "[w]e therefore will not inquire into his subjective motivation for exerting his statutory rights, even though his refusal to sell or license his patented invention may have an anticompetitive effect, so long as that anticompetitive effect is not illegally extended beyond the statutory patent grant." *Id.* at 1327-28. See also *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990) ("[A] patent owner may not take the property right granted by a patent and use it to extend his power in the marketplace improperly, i.e. beyond the limits of what Congress intended to give in the patent laws.") (emphasis added); *Townshend*, 2000-1 Trade Cas. (CCH) ¶ 72,890, at 12:

In a market consisting of proprietary technology . . . any party who has secured proprietary rights to such technology (i.e. – a patent) possesses the legal right to exclude others from practicing technology which has been protected. . . . The adoption of an industry standard incorporating such proprietary technology does not confer any power to exclude that exceeds the exclusionary power to which a patent holder is otherwise logally [sic] entitled.

Id. The court further held that the right to refuse to license immunizes proposed licensing terms from antitrust scrutiny. *Id.* at 16. The court applied essentially the same standard to refusal to license copyright-protected materials. *In re Indep. Serv.*, 203 F.3d at 1329.

32. See *In re Indep. Serv.*, 203 F.3d at 1327. The court notes:

The cited language from *Kodak* does nothing to limit the right of the patentee to refuse to sell or license in markets within the scope of the statutory patent grant. In fact, we have expressly held that, absent exceptional circumstances, a patent may confer the right to exclude competition altogether in more than one antitrust market.

Id. See *B. Braun Med., Inc. v. Abbott Lab.*, 124 F.3d 1419, 1427 n.4 (Fed. Cir. 1997) (patentee had right to exclude competition in both the market for patented valves

impact of the challenged conduct on consumer welfare if, under intellectual property law, the defendant is acting within the scope of the patent.³³

Former Federal Trade Commission (FTC) Commissioner Mary Azcuenaga recently endorsed this position in an October 2000 address at Boston University School of Law. She served as a Commissioner at the time that the Department of Justice, Antitrust Division, and the FTC jointly issued their Intellectual Property Guidelines, and she purports to support them.³⁴ Yet her discussion of the Federal Circuit's *In re Independent Service*

and the market for extension sets incorporating patented valves); *In re Indep. Serv.*, 203 F.3d at 1328. The court explains:

It is the infringement defendant and not the patentee that bears the burden to show that one of these exceptional situations exists and, in the absence of such proof, we will not inquire into the patentee's motivations for asserting his statutory right to exclude. Even in cases where the infringement defendant has met this burden, which CSU has not, he must then also prove the elements of the Sherman Act violation.

Id. See also *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1368 (Fed. Cir. 1998) ("Unless the patent had been obtained by fraud such that the market position has been gained illegally, the patent right to exclude does not constitute monopoly power prohibited by the Sherman Act.").

33. *In re Indep. Serv.*, 203 F.3d at 1328 ("We answer the threshold question of whether Xerox's refusal to sell its patented parts exceeds the scope of the patent grant in the negative. Therefore, our inquiry is at an end."). The Federal Circuit cites the Intellectual Property Guidelines in support of its decision. *Id.* at 1326 ("The United States Department of Justice and Federal Trade Commission have issued guidance that, even where it exists, such market power does not impose on the intellectual property owner an obligation to license the use of that property to others.") (internal quotations omitted). Taken in context, however, the guidelines section quoted by the Federal Circuit does not support its opinion:

If a patent or other form of intellectual property does confer market power, that market power does not *by itself* offend the antitrust laws. As with any other tangible or intangible asset that enables its owner to obtain significant supracompetitive profits, market power (or even a monopoly) that is solely "a consequence of a superior product, business acumen, or historic accident" does not violate the antitrust laws. Nor does such market power impose on the intellectual property owner an obligation to license the use of that property to others. *As in other antitrust contexts, however, market power could be illegally acquired or maintained, or, even if lawfully acquired and maintained, would be relevant to the ability of an intellectual property owner to harm competition through unreasonable conduct in connection with such property.*

IPG, *supra* note 22, at § 2.2 (footnote omitted, emphasis added). The Federal Circuit rejected the Ninth Circuit approach calling for greater scrutiny of refusals to license on the ground that the subjective motive of patent or copyright holder should not be relevant. *In re Indep. Serv.*, 203 F.3d at 1327-29. While the court is correct that motive alone has no economic or consumer welfare significance, the issue is not one of motive but effect: Does the refusal harm short-term consumer interests more than increasing the value of the patent increases long-term consumer interests?

34. Azcuenaga, *supra* note 28, at 7 (describing the enforcement agency guidelines as "a very appropriate balance . . . between intellectual property and competition law").

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Organizations decision bristles with a sense of conflict between intellectual property lawyers who innately understand that “market power does not impose an obligation to license the use of that property to others” and antitrust lawyers to whom that “concept . . . is not as obvious.”³⁵ Later, she offers a rule of thumb that if intellectual property is properly obtained and the holder has not “somehow expanded the scope of the intellectual property right . . . then there should be no need to apply antitrust law.”³⁶ This view of the law weds us to a continued conflict: The scope of the right concept permits conduct under the intellectual property laws that the antitrust laws—through consumer welfare analysis—would prohibit.³⁷

If this conflict persists, so too does the need for integrated antitrust and intellectual property regulatory regimes in information platform industries. If antitrust can never compel the holder of intellectual property to license that technology to competitors, industry-specific regulation will be required whenever compulsory licensing is necessary to enhance consumer welfare. But the conflict need not persist if the nagging reluctance to

35. *Id.*

36. *Id.* at 11; *see id.* at 20 (questioning whether an agency challenge to a patent litigation settlement in which one party agrees not to compete in a way that infringes a patent should require a showing that the patent is invalid).

37. The text treats the *scope of the grant* as an intellectual property right that can be exploited by its holder irrespective of the impact on consumer welfare. No doubt, however, proponents of scope-of-the-grant analysis believe that protecting intellectual property rights in this fashion would redound to the benefit of consumers by increasing incentives to innovate. But antitrust should already incorporate that long-run benefit into its consumer welfare analysis. So, if the purpose of scope-of-the-grant analysis is instrumental rather than rights based, there is arguably no need for it. Still, scope-analysis proponents may see value in a bright-line rule insulating intellectual property rights from antitrust challenge. Adopting a conclusive presumption or rule of *per se* legality would provide a measure of certainty to those investing in the development of new products and services. And by reducing the risk of antitrust liability for procompetitive investment, the law would spur that sort of competition. Historically, however, antitrust doctrine has resisted calls for rules of *per se* legality, even in an area such as predatory pricing where the arguments have been quite persuasive. Compare Frank E. Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. CHI. L. REV. 268, 333-37 (1981) (calling for a rule of *per se* legality with respect to predatory pricing claims), with *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993) (failing to adopt a rule of *per se* legality for predatory pricing claims).

Perhaps the most fundamental problem with scope-of-the-grant analysis is that it provides no real guidance as to what should be permissible. I don't think that anyone has ever improved on the late Bill Baxter's illustration: “[A] promise by the licensee to murder the patentee's mother-in-law is as much ‘within the patent monopoly’ as is the sum of \$50; and it is not the patent laws which tell us that the former agreement is unenforceable and subjects the parties to criminal sanctions.” William F. Baxter, *Legal Restrictions on Exploitation of the Patent Monopoly: An Economic Analysis*, 76 YALE L.J. 267, 277 (1966).

abandon the paradigm of conflict can be understood and explained away.

B. Explaining the Persistent Paradigm of Conflict Through History and Misunderstanding

The continuing desire to give intellectual property a privileged place among all commercially productive property may arise from four concerns:

1. Fears that were created at a time when antitrust's goals were much less clear;
2. A misunderstanding about Congress' intent in enacting and amending the Patent Act;
3. The failure to explore carefully the real and imagined differences between intellectual and other forms of property; and
4. A concern that antitrust in practice is incapable of respecting the long-run competitive benefits that flow from strong intellectual property protection.

Historically, basic antitrust doctrine was so hostile to intellectual property rights that special protections were needed to ensure that the consumer welfare benefits from innovation were not sacrificed to the short-run consumer welfare benefits of price competition. Those special protections created an atmosphere in which intellectual property was perceived to be different from other forms of property. While antitrust has been carefully examined and has evolved appropriately, the relationship between intellectual and other forms of property for antitrust purposes has received less attention. A careful analysis reveals that there are no compelling reasons to treat intellectual property differently than any other form of property.

1. The Historical Evolution of the Paradigm of Conflict

The paradigm of conflict between antitrust and intellectual property law is in part an outgrowth of the mechanisms developed over the years to compensate for the incorrect assumptions that antitrust courts once applied. For many years, courts wrongly proclaimed that intellectual property rights always conferred market power.³⁸ Assuming that to be true, permitting the

38. Tom & Newberg, *supra* note 20, at 169-71. Examples of early antitrust cases involving intellectual property issues include: *E. Bement & Sons v. Nat'l Harrow Co.*, 186 U.S. 70, 91 (1902) (commenting that "[t]he very object of [the patent laws] is monopoly"); *Henry v. A.B. Dick Co.*, 224 U.S. 1 (1912) (approving the defendant's tie

full scope of antitrust regulation appropriate to parties that have market power would have seriously undermined the social utility of creating intellectual property rights in the first place. But ignoring antitrust principles whenever a party acted with the cover of an intellectual property right would have seriously undermined the consumer welfare goals of the antitrust laws.

The accommodation of this conflict arose in the context of intellectual property doctrines.³⁹ In general, an intellectual property right was deemed not to violate the antitrust laws. But, conduct that exceeded the scope of the patent grant—whatever that might mean—could open the door to virtual *per se* antitrust analysis.⁴⁰ Now that it is well understood that intellectual property rights do not create market power, there should be no need for special privileges for intellectual property.⁴¹

of a patented mimeograph machine to unpatented supplies), *overruled by* W. Elec. Co. v. Gen. Talking Pictures Corp., 16 F. Supp. 293 (S.D.N.Y. 1936); Motion Picture Patents Co. v. Universal Film Mfg. Co. 243 U.S. 502 (1917) (finding unlawful a license agreement requiring a user of the defendant's film projector to show only defendant's motion pictures); United States v. Gen. Elec. Co., 272 U.S. 476 (1926) (approving a price-fixing agreement in a patent license); Cabrice Corp. v. Am. Patents Dev. Corp., 283 U.S. 27 (1931) (finding unlawful a license agreement requiring the purchaser of defendant's ice box to use only dry ice). The perception of such a conflict between antitrust and intellectual property, however, is still evident in some more recent decisions. See United States v. Westinghouse Elec. Corp., 648 F.2d 642, 646 (9th Cir. 1981) (“[T]here is an obvious tension between the patent laws and the antitrust laws” because “[o]ne body of law protects monopoly power while the other seeks to proscribe it.” (citing E. Bement & Sons v. Nat'l Harrow Co., 186 U.S. 70, 91 (1902))); SCM Corp. v. Xerox Corp., 645 F.2d 1195, 1203 (2d Cir. 1981) (“When . . . the patented product is so successful that it evolves into its own economic market. . . the patent and antitrust laws necessarily clash.”); DiscoVision Assocs. v. Disc Mfg. Inc., 42 U.S.P.Q.2d 1749, 1756 (D. Del. 1997).

39. See, e.g., United States v. Line Materials Co., 333 U.S. 287, 308 (1948).

40. Tom & Newberg, *supra* note 20, at 171-72 (explaining that patents were believed to convey limited monopolies “in a formalistic sense, by the metes and bounds of the patent grant. Within the scope of the patent conferred by Congress, the right of the patent holder was almost absolute. One step over the line demarcated by the patent grant, however, and the patent holder subjected himself to potential antitrust liability, to loss of enforceability of the patent through the doctrine of patent misuse, or both.”). For a recent example of this approach see *DiscoVision*, 42 U.S.P.Q.2d at 1756:

The court recognizes that there is an obvious tension between the patent laws and the antitrust laws since one body of law protects monopoly power while the other seeks to proscribe it. The patent laws grant a monopoly for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” for a varying term. Section 2 of the Sherman Act makes it a felony “for every person who shall monopolize, or attempt to monopolize . . . any part of trade or commerce.” Consequently, any anticompetitive effect giving rise to antitrust liability must extend beyond the anticompetitive effect implicit in the grant of a patent.

Id. (footnotes, citations, and internal quotations omitted).

41. The lack of Supreme Court precedent rejecting the presumption of market power in antitrust cases may be a source of some apprehension. Jefferson Parish

2. Congress Intended to Accord Intellectual Property the Same Rights as Other Property

Many invoke the Patent Act—particularly § 154, which creates the general right to exclude, and § 271(d), which codifies a patent-holder’s right to sue an infringer even though the patent-holder has chosen not to license⁴²—as a Rosetta stone, signifying that Congress has rejected in any and all circumstances a requirement that a patent holder cooperate with a competitor.⁴³ But those sections of the Patent Act speak only to intellectual property law; they do not create antitrust immunity.⁴⁴ On the contrary, they simply bring intellectual property law in line with long standing antitrust doctrine that generally privileges any competitor’s right—even a monopolist’s—to refuse to deal with a potential competitor or customer.⁴⁵ But just as that right is not absolute when a firm with market power exploits non-intellectual forms of property, it is not absolute when a dominant firm exploits intellectual property.⁴⁶

Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 16 (1984) (commenting in dicta “if the government has granted the seller a patent or similar monopoly over a product, it is fair to presume that the inability to buy the product elsewhere gives the seller market power”). But most lower courts appear to be following the IP Guidelines and not the Court’s dicta. *See supra*, note 27.

42. 35 U.S.C. § 271(d) (2000) (“No patent owner otherwise entitled to relief for infringement . . . of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having . . . refused to license or use any rights to the patent . . .”).

43. 35 U.S.C. § 154 (2000) (authorizing a patentee “to exclude others from making, using or selling the invention . . .”).

44. The Supreme Court has been quite clear in cautioning against presuming broad immunities from antitrust liability. *See Square D Co. v. Niagara Frontier Tariff Bureau*, 476 U.S. 409, 421 (1986) (holding that “exemptions from the [Sherman Act] are strictly construed and strongly disfavored.”); *FMC v. Seatrain Lines*, 411 U.S. 726, 733 (1973); *Silver v. New York Stock Exch.*, 373 U.S. 341, 357 (1963).

45. *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752 (1984); *United States v. Colgate*, 250 U.S. 300, 307 (1919). *See Melamed & Stoepfelwerth, supra* note 19, (manuscript at 6-7). Doug Melamed and Ali Stoepfelwerth have argued persuasively that the legislative history of the Patent Act also supports the view that these sections were enacted to place intellectual property on a level playing field with other property and not to create special protections. *Id.* at 7-9.

46. *See Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 600-01 (1985).

[E]ven a firm with monopoly power has no general duty to [cooperate] with a competitor. . . .

. . . .

The absence of an unqualified duty to cooperate [, however,] does not mean that every time a firm declines to participate in a particular cooperative venture, that decision may not have evidentiary significance, or that it may not give rise to liability in certain circumstances The high value that we have placed on the right to refuse to deal with other firms does not mean that the right is unqualified.

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3. Debunking the Perceived Differences Between Intellectual and Other Forms of Property for Antitrust Purposes

The proponents of special treatment for intellectual property also point to differences between intellectual and other types of property. The issue, of course, is not whether differences can logically be identified, but whether they should affect the antitrust analysis. In fact, the differences are less pronounced than many commentators assume, and antitrust analysis can fully account for those differences.

a. The Intangible Character of Intellectual Property

One perceived difference is the intangible character of intellectual property. But all property rights are intangible.⁴⁷ The rights to exclude, use, and sell—the core sticks in the bundle of property rights—have the same essential character regardless of the type of property to which they are attached.⁴⁸ Interestingly, early courts applied the same antitrust analysis to both intellectual and other forms of property, prohibiting post-sale, but not pre-sale, price restraints in both cases.⁴⁹

Id. (footnote omitted).

47. *See, e.g.*, JEREMY BENTHAM, *THEORY OF LEGISLATION* 112-113 (4th ed. 1882). There is no image, no painting, no visible trait, which can express the relation that constitutes property. It is not material, it is metaphysical; it is a mere conception of the mind The idea of property consists in an established expectation; in the persuasion of being able to draw such or such an advantage from the thing possessed, according to the nature of the case.

Id.

48. For example, the right to exclude goes to the core of both real and intellectual property rights. *Compare* *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979) (holding that the right to exclude others from one's land is "one of the most essential sticks in the bundle of rights that are commonly characterized as property."), *with* *USM Corp. v. SPS Tech., Inc.*, 694 F.2d 505, 513 (7th Cir. 1982) (Posner, J.) ("[T]he essence of the patent grant is to allow the patentee to exclude competition in the use of the patented invention"), *and* *Cont'l Paper Bag Co. v. E. Paper Bag Co.*, 210 U.S. 405, 429 (1908) (holding that the power to exclude others is "the very essence of the right" conferred by patent law), *and* 35 U.S.C. §154 (2000) (codifying the right to exclude granted by patent law). Copyright law also grants the copyright holder the right to exclude others from using the work. *See, e.g.*, *Fox Film Corp. v. Doyal*, 286 U.S. 123, 127 (1932) (holding that the owner of a copyright is free to "refrain from vending or licensing" and may simply "content himself with . . . the right to exclude others from using his property.").

49. *Compare* *Adams v. Burke*, 84 U.S. 453, 456 (1873) ("[W]hen . . . the person having . . . rights [in a patent] sells . . . he parts with the right to restrict . . . use. The article . . . passes without the limit of the monopoly."), *with* *Dr. Miles Med. Co. v. John D. Park & Sons Co.*, 220 U.S. 373 (1911) (applying same analysis to non-patented good). Only later did the Court explicitly distinguish intellectual property from other property rights. *See, e.g.*, *Simpson v. Union Oil Co. of Cal.*, 377 U.S. 13, 24 (1964).

b. The Limited Duration of Intellectual Property

Another common current basis for distinguishing intellectual property from other forms of property—its limited duration⁵⁰—is also much less fundamental to intellectual property than has been suggested. One typically thinks of a patent with a life limited to just 20 years in contrast to a fee simple in land or buildings, interests that exist in perpetuity. But that comparison surely overstates the real differences, because all property requires continued investment to remain commercially useful. Patent rights can—as a practical matter—be extended through investment in improvement patents and associated copyrights, which themselves have quite long lives. Other property rights, while theoretically existing in perpetuity, are typically attached to property—like a manufacturing plant—with a limited productive life. Unless significant additional investment is made in a particular piece of property, whether intellectual or otherwise, a useful life longer than 20 years is probably quite unusual.

c. The Cost of Protecting Intellectual Property

The apparent differences in an owner's ability to protect against misappropriation of property rights—the most common purported distinction⁵¹—is subject to much the same analysis.

50. Azcuenaga, *supra* note 28, at 6 (recognizing the complementary nature of antitrust and intellectual property law by pointing to differences attributable to the intangible quality and duration as well as the difficulty of enforcing the right to exclude). R

51. See IPG, *supra* note 22, at § 2.1 n.9 R

(As with other forms of property, the power to exclude others from the use of intellectual property may vary substantially, depending on the nature of the property and its status under federal or state law. The greater or lesser legal power of an owner to exclude others is also taken into account by standard antitrust analysis.);

Id., at § 4.1.2.

(The antitrust principles that apply to a licensor's grant of various forms of exclusivity to and among its licensees are similar to those that apply to comparable vertical restraints outside the licensing context, such as exclusive territories and exclusive dealing. However, the fact that intellectual property may in some cases be misappropriated more easily than other forms of property may justify the use of some restrictions that might be anticompetitive in other contexts.);

Id. at § 2.1.

(That is not to say that intellectual property is in all respects the same as any other form of property. Intellectual property has important characteristics, such as ease of misappropriation, that distinguish it from many other forms of property. These characteristics can be taken into account by standard antitrust analysis, however, and do not require the application of fundamentally different principles.);

Tom & Newberg, *supra* note 20, at 173 n.35. R

One naturally thinks again of a patent or copyright on display for all to see and a chattel that can be squirreled away. But antitrust analysis focuses on productive property that is used to enhance consumer welfare. All property of this type is subject to misappropriation of one sort or another and must be protected. Buildings and factories require security and insurance. Patents and copyrights require monitoring to guard against unfair use. Break-ins and thefts may often be more obvious than misappropriation,⁵² but they may also be more harmful. While the destruction or theft of real property or chattels typically renders that property useless, a patent or copyright holder's ability to use its property profitably is not necessarily impacted significantly by unauthorized use.⁵³ While obvious differences exist, the underlying character of the problem is the same.

The critical issue is whether it costs substantially more to protect intellectual property. That is an empirical question about which I have seen little data. But my anecdotal experience representing clients competing in, and conducting antitrust investigations of, intellectual-property-intensive industries suggests that the threat of patent and copyright infringement litigation is a powerful tool against misappropriation.⁵⁴ That is not to say that this threat renders the protection of intellectual property rights a trivial matter. But it does suggest that one should not assume that protecting intellectual property rights is more expensive than protecting other types of property rights.

Even if there were a difference between intellectual property and other types of property, there would be no need to create a conflict between the two legal regimes to account for that difference. Antitrust law alone is fully capable of internalizing any differences that relate to consumer welfare. And differences relating to the cost of misappropriation surely relate to consumer welfare. Inadequate protection against theft of chattels could discourage private investment, redounding to the detriment of consumers. Antitrust should thus view theft protection mechanisms—e.g., protection of customer lists—as procompetitive practices, justifiable even in the face of some anticompetitive effect. In the same way, inadequate protection against misappropriation of intellectual property rights would discourage private investment, redounding to the detriment of consumers. Anti-

52. See sources cited *supra* note 51.

53. I'd like to thank John Tiranian for reminding me of this point by discussing it in a talk he gave at Thomas Jefferson School of Law in late November 2001.

54. See, e.g., *Tronzo v. Biomet*, 236 F.3d 1342, 1347-50 (Fed. Cir. 2001) (approving \$20 million punitive damage award in patent infringement case).

trust should thus view restrictive licensing terms that guard against misappropriation—e.g., certain field-of-use restrictions—as procompetitive practices that may be justifiable even in the face of some anticompetitive effect. In both cases, the result should turn entirely on the antitrust analysis of the value of the pro- and anti-competitive effects of the restriction at issue rather than a formalistic analysis of whether the property holder exceeded the scope of the grant.⁵⁵

d. The Dynamic Character of Intellectual Property-intensive Markets

Another potential difference between intellectual property and other forms of property arises not from the character of the property itself, but from its role in a particular form of industrial production. Many information platform markets are highly dynamic, and some argue that as a result apparent market power is likely to be short-lived as new entrants with new and better products and technologies leap frog the current dominant players.⁵⁶ To be sure, the importance of intellectual property to information platforms creates opportunities for competition that do not exist in heavy industry.

But that difference is easily overstated. Traditional property assets continue to play important roles in both wired and wireless systems. And network effects—the value of a network rises with the number of users—create the potential for anticompetitive harm that was unlikely to arise in heavy industry.⁵⁷ A first mover in an information platform market may have advan-

55. See Tom & Newberg, *supra* note 20, at 174 n.35 (“[A]ntitrust principles of the rule of reason already take into account these differences in assessing the competitive benefits and harms of a practice in a particular market circumstance.”); *id.* at 176 (“Rather than focusing on whether the defendant’s conduct falls inside or outside the narrow scope of the patent grant, the Guidelines’ approach scrutinizes the actual competitive effects of the practice.”).

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56. See, e.g., Pitofsky, *supra* note 5, at 916; Klein, *supra* note 4 (“Especially in network industries, questions of exclusive dealing, control over essential facilities, and the use of market power can raise significant antitrust concerns.”); Joel I. Klein, Re-thinking Antitrust Policies for the New Economy, Address to the Haas/Berkeley New Economy Forum (May 9, 2000), available at <http://www.usdoj.gov/atr/public/speeches/4707.htm> (“In our business, there are generally about a half-dozen or so of these techniques and they are used in the new economy in much the same way that they were used in the old.”).

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57. See Pitofsky, *supra* note 5, at 916. For a broad ranging discussion of network effects in law and economics, see Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479 (1998), Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 94 (1994) (“Because the value of membership [in a network] to one user is positively affected when another user joins and enlarges the network, such markets are said to exhibit ‘network effects’ or ‘network externalities.’”), and Michael L. Katz &

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tages over competitors because of the value of compatibility and interoperability.⁵⁸ Consumers are reluctant to switch to new networks because of investments in hardware and time spent learning a system.⁵⁹ Suppliers of ancillary products—knowing the reluctance of consumers to switch—are unlikely to provide support to new competitors.⁶⁰ Brand name recognition and the consumer confidence it inspires may be even more powerful barriers to new competition in information platform industries where consumers rely heavily on suppliers for continuing support.⁶¹ While antitrust must be attentive to the interests of consumers in dynamic industries, the potential for competitive mischief counsels strongly against bright line exemptions for intellectual property.

4. A Lack of Confidence in the Ability of Antitrust Courts to Strike the Delicate Balance Between Short-run and Long-run Consumer Welfare Effects

While Congressional intent, history, and the improperly assumed *differences* between intellectual property and other property are partly responsible for the difficulty many have accepting an antitrust-driven regulatory program for information platforms, a deeper concern may motivate the most thoughtful skeptics. Antitrust doctrine is most widely accepted when it deals with short-run competitive concerns like price fixing and market division. Even cases that compel affirmative cooperation tend to deal predominantly, if not entirely, with the short-run competitive effects of refusals to deal. Some may question whether antitrust—even if it has abandoned the mistaken assumption that intellectual property creates market power—is capable of safeguarding the consumer-welfare enhancing benefits of innovation over the long term, the very benefits most directly enhanced by the intellectual property laws.⁶²

Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424, 424 (1985).

58. See Pitofsky, *supra* note 5, at 916.

59. *Id.*

60. *Id.*

61. *Id.*

62. Michelle Burtis and Bruce Kobayashi present this view explicitly: Limits on Section 2 monopolization claims applied to intellectual property refusals to deal are necessary to reduce the costs of type I error by ensuring that the patent, copyright, and antitrust laws “promote the progress of science and the useful arts.” . . . Because economists and courts do not fully understand the innovation process, they are unlikely to be able reliably to differentiate between pro-competitive and anti-competitive effects of conduct. Thus, there

Many antitrust/intellectual property cases require just this sort of balance. Condemning a licensing practice will often enhance short-run consumer welfare by increasing output and lowering prices given the existing technology, as long as the technology is still licensed. But a legal action of this type would reduce the value of intellectual property and thereby reduce the incentives of firms to innovate better and cheaper technologies in the future. In theory, antitrust alone can deal with this problem because it is properly concerned with both short- and long-term consumer welfare. Nevertheless, skeptics may fear that in practice antitrust doctrine is not precise enough or nimble enough to strike the appropriate balance.

This practical concern lies at the root of the most sophisticated arguments against giving antitrust its full scope in intellectual property cases. For example, Carl Shapiro has expressed concern that vigorous antitrust enforcement might hinder efforts to employ cross-licensing and patent pooling arrangements that are necessary to optimize innovation and enhance consumer welfare in certain intellectual-property-intensive industries.⁶³ But this concern boils down to a lack of faith in the ability of antitrust enforcers to take full account of the long run benefits of cross-licensing and pooling. If those practices do in fact create more efficient use of patented technology, they should benefit consumers and therefore not run afoul of the antitrust laws.

David McGowan also offers a thoughtful argument in favor of special protection for intellectual property where the owner engages in a pure refusal to deal. Exposing a pure refusal to potential liability, he contends, would undermine the return structure pre-supposed by the intellectual property laws to be

will be a high incidence of type I errors. If the expected cost of type II errors is likely to be small when courts give antitrust immunity to a refusal to deal involving only patented parts and copyrighted works, this immunity will reduce total error costs. This analytical framework also would reduce direct costs by resolving such cases at an early stage on summary judgment.

Michelle M. Burtis & Bruce H. Kobayashi, *Why an Original Can Be Better than a Copy: Intellectual Property, the Antitrust Refusal to Deal, and ISO Antitrust Litigation*, 9 SUP. CT. ECON. REV. 143, 155, 158 (2001) (footnotes omitted).

63. Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting*, in INNOVATION POLICY AND THE ECONOMY 3 (Adam Jaffe et al. eds., 2001), available at <http://haas.berkeley.edu/~shapiro/thicket.pdf>, at 3.

(Under these circumstances, we can ill afford to further raise transactions costs by making it difficult [for] patentees possessing complementary and potentially blocking patents to coordinate to engage in cross-licensing, package licensing, or to form patent pools. Yet antitrust law can potentially play such a counterproductive role, especially since antitrust jurisprudence starts with a hostility towards cooperation among horizontal rivals.)

necessary to provide adequate incentives to innovate.⁶⁴ But if McGowan means that absolute discretion to refuse to deal in the pure case is a necessary condition to providing adequate incentives to innovate in the telecommunications industry, he would almost surely be mistaken.⁶⁵

Absolute protection for an initial innovator will undermine the incentives of follow-on innovators who could be blocked by the initial innovator from implementing their improvement or have all of their profits taxed away as royalties. To conclude that a regime of absolute refusal rights would provide appropriate incentives to innovate would require three debatable presumptions: (1) that the first inventor would choose to license the most efficient follow-on technologies, (2) that it would choose a royalty rate that provided sufficient incentives to follow-on innovators, and, most heroically, (3) that follow-on innovators would realize all of this *ex ante*.⁶⁶ Given the number of closely related patent grants in telecommunications industries, an absolute right to refuse to deal is more likely to stymie innovation than foster it.⁶⁷ A

64. David McGowan, *Innovation, Uncertainty, and Stability in Antitrust Law*, 16 BERKELEY TECH. L.J. 729, 781-82 (2001) (“A unilateral refusal to license a work protected by a lawfully acquired intellectual property right is nothing more than the exercise of economic power that Congress has granted, and it should not be made the basis for a claim under the antitrust laws.”); David McGowan, *Networks and Intention in Antitrust and Intellectual Property*, 24 J. CORP. L. 485, 523 (1999) (“The intellectual property laws imply a rate-of-return structure based on the right to exclude and on accompanying limitations; imposing antitrust liability in a case of pure exclusion would fundamentally alter that structure.”).

65. Ian Ayres & Paul Klemperer, *Limiting Patentees’ Market Power Without Reducing Innovation Incentives: The Perverse Benefits of Uncertainty and Non-injunctive Remedies*, 97 MICH. L. REV. 985, 987 (1999)

(Legal scholars have failed to appreciate that unconstrained monopoly pricing is not a cost-justified means of rewarding patentees. . . . [A]llowing patentees to raise price all the way to the monopoly level is a little like giving them a license to steal car radios—it produces a social cost (to car owners) far greater than the private benefit.).

66. Linda R. Cohen & Roger G. Noll, *Intellectual Property, Antitrust and the New Economy*, 62 U. PITT. L. REV. 453, 460-61 (2001). Cohen and Noll suggest that recent calls for absolute intellectual property rights effectively abandon the goal of providing incentives to innovate to improve consumer welfare in favor of “maximizing the wealth of current rights holders regardless of the effects on aggregate economic welfare.” *Id.* at 473.

67. MA Heller & RS Eisenberg, CAN PATENTS DETER INNOVATION? THE ANTI-COMMONS IN BIOMEDICAL RESEARCH, SCIENCE 280, 698-701 (1998); SHAPIRO, *supra* note 63, at 6-8; FEDERAL TRADE COMMISSION STAFF REPORT, COMPETITION POLICY IN THE NEW HIGH-TECH GLOBAL MARKETPLACE, at 6 (May 1996)

([S]ome people jump . . . to the conclusion that the broader the patent rights are, the better it is for innovation, and that isn’t always correct, because we have an innovation system in which one innovation builds on another. . . . the breadth and utilization of patent rights can . . . have adverse effects in the long run on innovation.).

finely tuned antitrust enforcement policy that takes full account of the long-run benefits of innovation, and occasionally compels cooperation, is more likely—at least in theory—to fulfill the goals of the intellectual property laws than a meat-ax, absolute property right to refuse to deal.⁶⁸ McGowan's concern then, like Shapiro's, is best understood not as a theoretical legal or economic argument, but as a practical one. Even if antitrust theoretically accounts for long-run incentives, they doubt that as a practical matter it could ever be so finely tuned.

This fear is understandable. But there are reasons to believe that antitrust can carefully discriminate between the many refusals to deal with long-run pro-competitive effects and the few that would harm consumer welfare. Antitrust courts have for decades performed a similar balancing act when they evaluate competitive restraints among joint venturers.⁶⁹ A joint venture is a cooperative effort among otherwise separate and competing firms. By definition, joint venturers surrender some of their independent decision-making authority to the venture, restraining short-run competition, and if the venture has market power, lessening consumer welfare in the short run. But joint ventures often provide efficiencies realized over the long term that enhance consumer welfare. When a particular joint venture practice is challenged as an antitrust violation, the courts must balance the procompetitive benefits of the joint venture against the anticompetitive effects of the restraint.⁷⁰ This balance is not

Alternatively, McGowan's views might be read as an interpretation of what Congress intended in the Patent Act, however ill-advised. Doug Melamed and Ali Stoepelwerth have argued persuasively against that interpretation of the patent laws. Melamed & Stoepelwerth, *supra* note 19, at 12-13.

68. Cf. F.M. Scherer & David Ross, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 456-57 (2nd ed. 1980) ("All in all, the substantial amount of evidence now available suggest that compulsory patent licensing, judiciously confined to cases in which patent-based monopoly power has been abused . . . would have little or no adverse impact on the rate of technological progress.")

69. See, e.g., *SCFC ILC, Inc. v. Visa USA Inc.*, 36 F.3d 958, 964-65 (10th Cir. 1994); *Sullivan v. NFL*, 34 F.3d 1091, 1102; *Los Angeles Mem'l Coliseum Comm'n v. NFL*, 726 F.2d 1381, 1395 (9th Cir. 1984) ("[T]he rule of reason inquiry requires us to consider the harms and benefits to competition caused by the [joint venture] restraint . . ."); *United States v. Visa U.S.A., Inc.*, 163 F. Supp. 2d 322, 399 (S.D.N.Y. 2001) (recognizing that even in the case of joint ventures, "the rule of reason still requires an analysis of whether the injury to competition effected by the restraint outweighs its purported benefits").

70. Gregory J. Werden, *Antitrust Analysis of Joint Ventures: An Overview*, 66 *ANTITRUST L.J.* 701, 708 (1998) ("Precisely how a restraint furthers the procompetitive purposes of the venture and why obvious less restrictive means would not adequately accomplish the same ends must be evaluated in the factual context of each joint venture."); *id.* at 720 (explaining that once a plaintiff shows a potential anticompetitive effect from a joint venture restraint, the venture "must put forward

fundamentally different from the balance that would be required in intellectual property cases.⁷¹

C. Enforcement Agency Support for an Antitrust-Driven Approach

The Clinton era antitrust regulators were poised to give antitrust the broad scope that would have enabled it to serve as an effective regulatory tool for information platform markets. This view is reflected quite explicitly in a speech by the then-Chairman of the FTC, Robert Pitofsky, the agencies' jointly-issued Intellectual Property Guidelines (IP Guidelines), and the amicus brief filed by the United States respecting the petition for certiorari from the Federal Circuit in *CSU v. Xerox*.

In a 2001 speech, Pitofsky portrayed antitrust as fully capable of resolving competitive problems in intellectual property dominant industries while criticizing cases suggesting that intellectual property deserved something less than full antitrust scrutiny.⁷² In particular, Pitofsky criticized the Federal Circuit's "sweeping language that exalts patent and copyright rights over other consideration and throws into doubt the validity of previous lines of authority that attempted to strike a balance between intellectual property and antitrust."⁷³

In the IP Guidelines, the enforcement agencies state that "[a]n intellectual property owner's rights to exclude are similar to the rights enjoyed by owners of other forms of private property."⁷⁴ Regardless of the form of property, "certain types of conduct . . . may have anti-competitive effects against which the antitrust laws can and do protect. Intellectual property is thus neither particularly free from scrutiny under the antitrust laws,

evidence demonstrating a clear causal nexus between the restraint and the social benefit and indicate why the social benefit could not reasonably be achieved in a substantially less anticompetitive manner."

71. Pitofsky, *supra* note 5, at 923-24 ("Traditionally, cases at the intersection between intellectual property and antitrust have been analyzed by examining the impact on economic incentives to innovate and balancing them against the anticompetitive effects."); E. Thomas Sullivan, *The Confluence of Antitrust and Intellectual Property at the New Century*, 1 MINN. INTELL. PROP. REV. 1, 18 (2000) ("Rule of reason analysis permits the courts to compare the innovation and competition benefits of protecting intellectual property rights with the anticompetitive effects of the defendant's conduct.")

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72. Pitofsky, *supra* note 5, at 920 ("I am concerned that recent cases, and particularly the Federal Circuit's opinion in Independent Service Organizations Antitrust Litigation (Xerox), have upset th[e] traditional balance [between antitrust and intellectual property] in a way that has disturbing implications for the future of antitrust in high-technology industries.")

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73. *Id.*

74. IPG, *supra* note 22, at § 2.1.

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nor particularly suspect under them.”⁷⁵ A careful reading of the IP Guidelines demonstrates that the agencies seldom stray from that position.

In the more recent *CSU v. Xerox* brief, the government demonstrated a continued commitment to the fundamental principle that antitrust applies to intellectual property without special safeguards. It recommended against granting certiorari to review the Federal Circuit’s decision apparently to truncate antitrust’s applicability to an intellectual property holder’s refusal to deal. But the Government did not endorse the Federal Circuit’s approach. Instead, it pointed to ambiguities in the opinion suggesting that the Federal Circuit may not have meant what it said.⁷⁶

The Government’s brief endorsed a vision of antitrust that takes account of the procompetitive affects of strong intellectual property protection without looking to intellectual property doctrine. “If the Federal Circuit had clearly held that a refusal to sell or license property protected by a valid patent may never be the basis of an antitrust violation except in the circumstances of an illegal tying arrangement,” the Government wrote, “we would have serious concerns about such a holding and would not be prepared to endorse it.”⁷⁷ Throughout the brief, the Government studiously avoided any reference to intellectual property concepts such as the scope of the patent when describing its own views.⁷⁸ “[T]he antitrust laws, properly construed,” it argued,

75. *Id.*

76. See Brief for the United States as Amicus Curiae at 7-8, *CSU L.L.C. v. Xerox Corp.*, 531 U.S. 922 (2000) (No. 00-62), cert. denied, 531 U.S. 1143 (2001), available at <http://www.usdoj.gov/osg/briefs/2000/2pet/6invt/2000-0062.pet.ami.inv.pdf> [hereinafter *Gov. CSU Br.*].

First, there are significant ambiguities in the decision below about the applicability of antitrust law to intellectual property. Unlike petitioners, we do not believe the Federal Circuit’s decision must be read as holding that no Section 2 claim may ever be based on the unilateral refusal to sell or license such intellectual property (even setting aside the three circumstances expressly recognized by the court of appeals in its decision in which an antitrust claim could be based on such a unilateral refusal to deal). While it is conceivable that the court of appeals intended to go that far, its opinion does not compel that conclusion, and that uncertainty makes this case an undesirable one for resolving the important issues presented.

Id.

77. *Id.* at 10.

78. The concept of the “scope of the intellectual property right” is an uncertain one that is likely given different meanings in different contexts. At its core, however, is the intellectual property law concept that a patent or copyright grant includes certain rights within its scope, just as a fee simple grant includes certain rights within its scope. While consumer welfare considerations, among others, may impact the definition of all property rights in general, the question of the scope of a

“afford ample scope for the exercise of lawfully obtained intellectual property rights.” A patent holder’s statutory right to exclude others from making, using or selling,⁷⁹ the government recognized, is no different in kind from the right to exclude enjoyed by all tangible property holders.⁸⁰

Regardless of the source of market power, the antitrust laws do not interfere with the efforts of those who “have advanced the common well-being to benefit fully from their contributions.”⁸¹ Antitrust permits even a monopolist—whether an intellectual property holder or not—to charge whatever price the market will bear, recognizing the benefits to consumers that result from the “skill, foresight and industry” that is thereby encouraged.⁸² Contrary to the view that intellectual property holders need special protections, the government maintained, antitrust has long recognized that a monopolist may exploit its well earned position by choosing with whom to do its business.⁸³ Only when a monopolist attempts to exclude rivals,—at the expense of increasing its own profit made possible by the monopoly,—in order to expand its market power do the antitrust laws permit a court to impose liability.⁸⁴ Given the carefully crafted parameters of the antitrust laws, the government saw no need to make “patent holders immune from liability under Section 2.”⁸⁵

property right in a particular case does not turn on whether recognizing the right will advance or detract from consumer welfare. In this way, an analysis of the scope of the right differs from an antitrust analysis, which always turns exclusively on consumer welfare-driven goals.

79. See 35 U.S.C. § 154(a)(1) (2000).

80. See *Gov. CSU Br.*, *supra* note 76, at 10-11 (citing and quoting *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979), characterizing the right to exclude as “one of the most essential sticks in the bundle of rights that are commonly characterized as property”); *Consol. Fruit Jar Co. v. Wright*, 94 U.S. 92, 96 (1896) (“A patent for an invention is as much property as a patent for land. The right rests on the same foundation and is surrounded and protected by the same sanctions.”).

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81. *Gov. CSU Br.*, *supra* note 76, at 11.

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82. *Id.* (quoting *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 430 (2d Cir. 1945) (L. Hand, J.)).

83. See *Gov. CSU Br.*, *supra* note 76, (citing *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752 (1984)); *United States v. Colgate*, 250 U.S. 300, 307 (1919) (“In the absence of any purpose to create or maintain a monopoly, the [Sherman] act does not restrict the long recognized right of a trader or manufacturer . . . freely to exercise his own independent discretion as to parties with whom he will deal.”).

84. See *Gov. CSU Br.*, *supra* note 76, at 12 (citing *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 605 (1985) (“[a]ttempting to exclude rivals on some basis other than efficiency”) (internal quotations omitted); *BORK*, *supra* note 3, at 144 (defining predation as conduct “that would not be considered profit maximizing except for the expectation” of a resulting reduction in competition)).

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85. *Gov. CSU Br.*, *supra* note 76, at 12-13 (citing *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 480 n.29 (1992); see *AREEDA & HOVENKAMP*, *supra* note 8, at 229, ¶ 704.1 (Supp. 2000) (discussing potential antitrust liability

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The realization that both antitrust and intellectual property serve the same goals should enable law makers to choose their tools more precisely. Intellectual property law should govern the acquisition and scope of intellectual property rights. Antitrust should govern the use of those property rights in the marketplace, just as it governs the use of other property rights.⁸⁶ No special accommodation is needed for patents and copyrights, because antitrust doctrine now recognizes that the mere use of intellectual property in certain formalistic ways does not raise antitrust concern.⁸⁷ The abuse of market power is the key issue in intellectual property cases just as it is in all other cases. Where an intellectual property holder has no market power, the use of his property raises no antitrust concern. But where market power exists, antitrust should pay close attention. The concept of the scope of the intellectual property right and similar intellectual property doctrines are simply unnecessary and unhelpful in answering the consumer welfare question.⁸⁸ It remains to be seen whether the current antitrust enforcement

from refusals to license intellectual property in conditions such as price fixing, reciprocity, and exclusive dealing).

86. IPG, *supra* note 22, at § 2.0 (“for the purpose of antitrust analysis, the Agencies regard intellectual property as being essentially comparable to any other form of property”); *id.* at § 2.1 n.9

(“As with other forms of property, the power to exclude others from the use of intellectual property may vary substantially, depending on the nature of the property and its status under federal or state law. The greater or lesser legal power of an owner to exclude others is also taken into account by standard antitrust analysis.”)

Id.

Intellectual property law bestows on the owners of intellectual property certain rights to exclude others. These rights help the owners to profit from the use of their property. An intellectual property owner’s rights to exclude are similar to the rights enjoyed by owners of other forms of private property. As with other forms of private property, certain types of conduct with respect to intellectual property may have anticompetitive effects against which the antitrust laws can and do protect. Intellectual property is thus neither particularly free from scrutiny under the antitrust laws, nor particularly suspect under them.

Id.

87. This article does not advocate a return to the era of the “Nine No-Nos,” the laundry list of nine – more or less – patent licensing practices that may at one time have been thought to raise serious anticompetitive concerns by virtue of their form alone. Tom & Newberg, *supra* note 20, at 178-81.

88. This is not to say that we should simply go about enforcing the antitrust laws without thinking about the interests of intellectual property holders. On the contrary, the FTC hearings on these issues should yield useful information about the competitive dynamics of intellectual property intensive industries. The point is that the goal of these hearings should be to understand competition more fully and thereby apply the antitrust laws more appropriately. They should not be seen as a platform to trumpet immunity for intellectual property holders from antitrust scrutiny.

authorities will follow this approach or whether the ebb and flow of the antitrust/intellectual property paradigm of conflict will once again flow back in the opposite direction.

III. ANTITRUST-BASED REGULATION WOULD NOT VIOLATE THE FIRST AMENDMENT AND COULD ADEQUATELY PROMOTE FREE SPEECH VALUES

Antitrust's relationship to the First Amendment, and free speech values more generally, has received less attention than the antitrust/intellectual property intersection. But the relationship is surprisingly similar. Just as antitrust's consumer welfare goal incorporates the values advanced by the intellectual property laws, that goal enables antitrust-based regulation to avoid conflict with the First Amendment and, more controversially, to enhance free speech values more generally.

Because information platforms deal in speech, regulating them necessarily impacts First Amendment values. But using antitrust as the regulatory benchmark can eliminate virtually any need to incorporate free speech legal doctrine into the regulatory framework. With respect to core political speech designed to influence government decisions, antitrust doctrine has its own firewall—the *Noerr/Pennington* doctrine—blocking antitrust enforcement that might tread on First Amendment values.⁸⁹ With respect to commercial speech, antitrust's consumer welfare enhancing goals have been held sufficiently important and reasonably tailored to avoid conflict with First Amendment interests even where the antitrust violation arises from a *per se* presumption of consumer harm rather than proof of actual market power.⁹⁰ A difficult question remains, however, as to whether additional industry-specific regulation is needed to promote free speech values. While the case law is less definitive, antitrust's

89. See, e.g., *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492 (1988).

90. See *FTC v. Superior Court Trial Lawyers Ass'n*, 493 U.S. 411, 428-36 (1990) (rejecting First Amendment challenge to a *per se* price fixing judgment by court-appointed criminal defense lawyers who were using a boycott to seek a fee increase); *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 662-663 (1994) (holding that "promoting fair competition in the market for television programming" is "an important government interest"); *id.* at 664 ("[T]he Government's interest in eliminating restraints on fair competition is always substantial, even when the individuals or entities subject to particular regulations are engaged in expressive activity protected by the First Amendment."); *id.* at 672 (Stevens, J., concurring in part and concurring in the judgment) ("An industry need not be in its death throes before Congress may act to protect it from economic harm threatened by a monopoly. . . . The must-carry mechanism is analogous to the relief that might be appropriate for a threatened violation of the antitrust laws").

consumer welfare goals and market-enhancing tools may be the best available safeguards for the marketplace of ideas.

A. *Antitrust Does Not Apply to Efforts to Influence Governmental Action*

More than 40 years ago, the Court avoided the need to test the Sherman Act against a First Amendment challenge by declaring that the antitrust laws were not intended to regulate political activity.⁹¹ The Court has thus held that cooperative efforts to achieve government action that would lessen consumer welfare are not subject to antitrust scrutiny. Neither are the collateral anticompetitive effects of a lobbying campaign.⁹² In short, political speech is fully insulated from antitrust challenge.⁹³

B. *Full Antitrust Scrutiny is Applied to Commercial Speech*

The Supreme Court has held unequivocally that antitrust may be applied without alteration to industries that deal in speech and to cases where the remedy necessarily limits speech. In either case, the harm needed to prove the antitrust violation is sufficient to justify any effect on free speech. This result contrasts sharply with industry-specific regulation that does not require proof of antitrust harm.⁹⁴

1. *Antitrust Applies With Full Force to Industries that Deal in Speech*

Applying antitrust to an industry in which the commodity traded is speech probably does not implicate the First Amendment at all.⁹⁵ While the specific parameters of the doctrine exempting laws of general applicability from First Amendment

91. See *Eastern R.R. Presidents Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127, 136-37 (1961); *United Mine Workers v. Pennington*, 381 U.S. 657, 671 (1965).

92. See *Eastern R.R.*, 365 U.S. at 143-44.

93. Conversely, conduct that directly restrains trade is not protected if it amounts to a sham attempt to influence government policy, *California Motor Transp. v. Trucking Unlimited*, 404 U.S. 508, 512-13 (1972), or if the restraint is directly imposed by self-interested, private parties. *Allied Tube*, 486 U.S. at 502.

94. See generally Stuart M. Benjamin, *Proactive Legislation and the First Amendment*, 99 MICH. L. REV. 281 (2000) (discussing the First Amendment review of regulatory legislation based on predictions of future harm).

95. See *Turner Broad. Sys.*, 512 U.S. at 640-41; *Cohen v. Cowles Media Co.*, 501 U.S. 663, 670 (1991); *Barnes v. Glen Theatre, Inc.*, 501 U.S. 560, 566-67 (1991).

review remain uncertain,⁹⁶ there appears to be broad agreement that the generally applicable antitrust laws apply fully to speech-oriented industries despite the incidental impact the law may have on the ability of those industries to communicate their message.⁹⁷

2. Speech-Related Antitrust Offenses and Remedies are Not Subject to First Amendment Scrutiny

Antitrust is also applied without alteration to specific offenses that involve speech and remedies that restrain it. In *Superior Court Trial Lawyers Association*, the Court assumed that a boycott by court-appointed criminal defense lawyers served an important goal of increasing the quality of representation for criminal defendants *that could not have been effectively achieved by other forms of speech*.⁹⁸ Even though the antitrust judgment in that case would have withstood scrutiny under First Amendment principles, the Court went out of its way to emphasize that

96. On the one hand, Justice Scalia has argued that generally applicable laws that restrain only conduct should not be subject to First Amendment scrutiny unless the purpose of the law is to restrain the communicative impact of the conduct. *Barnes*, 501 U.S. at 578 (Scalia, J., concurring in judgment). On the other hand, other members of the Court apply the O'Brien test in situations where a generally applicable law has a significant impact on communicative conduct. *Id.* at 566-72. By contrast, industry specific regulation that restrains speech is subject to searching First Amendment scrutiny. *Turner Broad. Sys.*, 512 U.S. at 640-41 ("[L]aws that single out the press, or certain elements thereof, for special treatment 'pose a particular danger of abuse by the State' . . . and so are always subject to at least some degree of heightened First Amendment scrutiny.") (quoting *Ark. Writers' Project, Inc. v. Ragland*, 481 U.S. 221, 228 (1987)); *id.* at 682 (O'Connor, J., concurring in part and dissenting in part)

That some speech within a broad category causes [antitrust] harm, however, does not justify restricting the whole category. If Congress wants to protect those stations that are in danger of going out of business, or bar cable operators from preferring programmers in which the operators have an ownership stake, it may do that. But it may not, in the course of advancing these interests restrict cable operators and programmers in circumstances where neither of these interests is threatened.

Id.

97. For example, in *Citizen Publ'g Co. v. United States*, 394 U.S. 131 (1969), the Court applied the antitrust laws to a merger of two newspapers. Any impact on the speech rights of the newspapers, the Court apparently believed, is far outweighed by the positive impact on the rights of all to "the widest possible dissemination of information from diverse and antagonistic sources" that would result from vigorous antitrust enforcement. *Id.* at 139-40 (quoting *Associated Press v. United States*, 326 U.S. 1, 20 (1945)). See also *Cohen*, 501 U.S. at 669 ("[G]enerally applicable laws do not offend the First Amendment simply because their enforcement against the press has incidental effects on its ability to gather and report the news.").

98. *FTC v. Superior Court Trial Lawyers Ass'n*, 493 U.S. 411, 421-22 (1990).

no examination of those principles was warranted.⁹⁹ Justice Stevens, writing for a six member majority, explained that “[a] rule that requires courts to apply the antitrust laws ‘prudently and with sensitivity’ whenever an economic boycott has an ‘expressive component’ would create a gaping hole in the fabric of those laws.”¹⁰⁰ Such a hole was unacceptable because of the important state interest in enhancing consumer welfare.¹⁰¹

The Court had reached a similar conclusion in *National Society of Professional Engineers*.¹⁰² In that case, the Society argued that the remedy imposed—a decree prohibiting, *inter alia*, comment on competitive pricing practices—violated its free speech rights.¹⁰³ In a portion of the opinion joined by eight justices, the Court rejected the First Amendment challenge, holding that an antitrust court may fashion whatever remedy is necessary to avoid recurrence of the violation and eliminate the consequences of the illegal activity. “The resulting order,” the Court recognized, “may curtail the exercise of liberties that the society might otherwise enjoy.”¹⁰⁴ But that result did not offend the Constitution.

To be sure, the trial judge should take account of free speech values in fashioning a remedy.¹⁰⁵ But the legality of an antitrust remedy is determined as a matter of antitrust law, not First Amendment law. “The standard against which the order must be judged,” the Court declared, “is whether the relief represents a reasonable method of eliminating the consequences of the illegal conduct.”¹⁰⁶ A court may comport with that standard even where it prohibits more than “the precise conduct previously pursued.”¹⁰⁷ Properly applied, the antitrust laws should never run afoul of the First Amendment, because an antitrust violation

99. *Id.* at 430-31.

100. *Id.* at 431-32.

101. *Trial Lawyers* was tried on a *per se* theory that did not require the government to prove the actual impact of the restraint on consumer welfare. *Id.* at 428-36. The Court nevertheless upheld the use of the antitrust laws because *per se* rules have been developed to combat restraints that would reduce consumer welfare overall, even if in a rare case the restraint did not produce that result.

102. 435 U.S. 679 (1978).

103. *Id.* at 697 (explaining that the judgment prohibited the society “from adopting any official opinion, policy statement, or guideline stating or implying that competitive bidding is unethical.”).

104. *Id.* at 697; *id.* at 697-98 (recognizing that an antitrust remedy may restrain rights “that would otherwise be constitutionally protected”).

105. *See id.* at 697-98.

106. *Id.* at 698.

107. *Id.*

cannot be established without a sufficient threat of consumer harm to justify the incidental effect on speech.¹⁰⁸

C. Antitrust Can Adequately Promote Free Speech Values

The Court has definitively established that antitrust enforcement does not violate the First Amendment. Industry-specific regulation might nonetheless be necessary to ensure that the marketplace of ideas receives the same attention as the marketplace of goods and services. On the one hand, antitrust generally favors numerous competitors and thus should favor a market with numerous voices as well. On the other hand, antitrust recognizes that reducing the number of competitors may increase consumer welfare when economies of scale and scope enable a small number of firms to produce goods more efficiently. One could certainly imagine a case in which economic analysis might call for two or three competitors, but free speech advocates might justifiably claim that more voices are needed.¹⁰⁹

Any industry-specific regulation designed to foster speech in this way is likely to be on shaky ground. The government cannot decide how many voices are enough to ensure a sufficiently robust marketplace of ideas without at least threatening to violate the First Amendment.¹¹⁰ One might conclude that economic markets are better able to determine how much speech consumers want. Indeed, if they want more, they ought to be willing to pay for it. For example, a cable system might be forbidden to refuse to carry a popular over-the-air station in favor of a less popular, cable-system-owned station. But less profitable stations

108. A possible exception may be politically motivated boycotts in which the participants in the boycott actually hurt their own interests as consumers in order to secure a more important civil, political, or social end. An example is *NAACP v. Clairborne Hardware Co.*, 458 U.S. 886 (1982), in which the Court held that those participating in a boycott of white merchants in order to secure equal rights for blacks were entitled to First Amendment protection. Similarly, wholly non-economic activities fall outside the scope of the antitrust laws because they do not affect commerce. *Apex Hosiery Co. v. Leader*, 310 U.S. 469 (1940) (labor union strike does not implicate commerce under Sherman Act); *Nat'l Org. for Women, Inc. v. Scheidler*, 968 F.2d 612 (7th Cir.1992) (violent pro-life protests that successfully closed abortion clinics do not implicate commerce), *cert. granted in part*, 508 U.S. 971 (1993). But commercial activity that serves the public interest in some way is covered. *Goldfarb v. Va. State Bar*, 421 U.S. 773, 787-88 (1975).

109. Mark Cooper, *Open Communications Platforms: Cornerstone of Innovation and Democratic Discourse in the Internet Age*, 2 J. TELECOMMS. & HIGH TECH. L. (manuscript at 2-3, on file with Journal office) (forthcoming 2003) ("The role of regulation is to ensure that strategically placed actors cannot deter *expression or innovation* at any layer of the platform." (emphasis added)).

110. See generally *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622 (1994); *Turner Broad. Sys., Inc. v. FCC*, 520 U.S. 180 (1997).

could always be dropped in favor of more popular ones even if the diversity of voices was reduced.

Alternatively, however, there may be room for free speech values to be considered within antitrust's overall consumer welfare goal. Antitrust has predominantly been about economic competition. Courts are thus likely to interpret the scope of antitrust narrowly when it intersects with non-economic factors. For example, in the mid-1990s, the Eastern District of Pennsylvania rejected an antitrust claim based on non-economic harm.¹¹¹ The plaintiff argued that the defendant, an electric utility, had reduced consumer welfare by, *inter alia*, "reducing the availability to consumers of power produced using alternative, environmentally pro-active energy sources."¹¹² The court dismissed the claim on the ground that "the reliability and environmental qualities of energy sources may be worthwhile concerns, [but] they are not within the scope of federal antitrust laws."¹¹³ Citing *Professional Engineers*, the district court declared that "[c]ourts have rejected attempts to expand the scope of the antitrust laws to encompass noneconomic interests."¹¹⁴

This unnuanced view of antitrust shortchanges the potential of its broad consumer welfare goals. To be sure, the Supreme Court has been reluctant to enable a defendant *to escape antitrust liability* by arguing that a restraint has non-economic benefits.¹¹⁵ But the Court has never ruled this possibility out entirely.¹¹⁶ On the contrary, it has often applied the rule of rea-

111. *Schuylkill Energy Res., Inc., v. Pennsylvania Power & Light Co.*, 1996 WL 284994 (E.D.Pa. 1996).

112. *Id.* at 3.

113. *Id.*

114. *Id.*

115. In *Professional Engineers*, the Court rejected the engineers' claim that a ban on competitive bidding was needed to ensure quality work necessary to protect "the public health, safety and welfare." *Nat'l Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679, 685 (1978). The Court rejected this *public safety* argument, because it imposed the engineers' "views of the costs and benefits of competition on the entire marketplace." *Id.* at 695. Because the antitrust laws rest on the assumption that competition benefits consumers, a defense may not rest "on the assumption that competition itself is unreasonable." *Id.* at 696. In *Indiana Dentists*, a group of dentists agreed to withhold x-rays from their patients' insurers, arguing that the quality of care would suffer if insurers based payment decisions on x-rays alone. *FTC v. Ind. Fed'n of Dentists*, 476 U.S. 447, 462-63 (1986). Following *Professional Engineers*, the Court rejected the defense. "The argument is, in essence, that an unrestrained market in which consumers are given access to the information they believe to be relevant to their choices will lead them to make unwise and even dangerous choices. Such an argument amounts to 'nothing less than a frontal assault on the basic policy of the Sherman Act.'" *Id.* at 463 (quoting *Professional Engineers*, 435 U.S. at 695).

116. For example, in *Goldfarb*, the Court explained that:

son instead of a *per se* rule in cases where defendants raised non-economic defenses.¹¹⁷

In any event, whether non-economic factors may mitigate economic harm that rises to an antitrust violation poses a different question from whether antitrust should consider non-economic factors in determining which consumer harms to condemn. Where a restraint of trade may have ambiguous pure economic effects, antitrust might nonetheless condemn it where the restraint also has a significant anti-free-speech effect.¹¹⁸

Using antitrust in this way may be particularly appropriate because of the close relationship between free speech interests and consumer choice, a widely recognized goal of the antitrust laws.¹¹⁹ Preserving opportunities for more voices in the marketplace would directly further the goal of enhancing consumer choice. Just as balancing short-run and long-run consumer welfare in intellectual property and joint venture cases is difficult, incorporating consumer choice into the balance of consumer welfare interests poses doctrinal challenges. But courts are already

The fact that a restraint operates upon a profession as distinguished from a business is, of course, relevant in determining whether that particular restraint violates the Sherman Act. It would be unrealistic to view the practice of professions as interchangeable with other business activities, and automatically to apply to the professions antitrust concepts which originated in other areas. The public service aspect, and other features of the professions, may require that a particular practice, which could properly be viewed as a violation of the Sherman Act in another context, be treated differently.

Goldfarb v. Va. State Bar, 421 U.S. 713, 788-89 n.17 (1975).

117. See, e.g., *Goldfarb*, 421 U.S. 773; *Professional Engineers*, 435 U.S. at 679; *Indiana Dentists*, 476 U.S. at 447.

118. The Third Circuit's opinion in *United States v. Brown Univ.*, 5 F.3d 658 (3rd Cir. 1993), may provide some insight into how antitrust might account for non-economic factors. There, Ivy League universities had agreed not to compete on certain scholarships. The court held relevant to antitrust analysis that the restraint would improve the diversity of higher education and make that education available to more students. *Id.* at 674. The court distinguished *Professional Engineers*, 435 U.S. at 679, and *Indiana Dentists*, 476 U.S. at 447, as follows:

Both the public safety justification rejected by the Supreme Court in *Professional Engineers* and the public health justification rejected by the Court in *Indiana Dentists* were based on the defendants' faulty premise that consumer choices made under competitive market conditions are "unwise" or "dangerous." Here MIT argues that [the restraint] provided some consumers, the needy, with additional choices which an entirely free market would deny them. The facts and arguments before us may suggest some significant areas of distinction from those in *Professional Engineers* and *Indiana Dentists* in that MIT is asserting [the restraint] not only serves a social benefit, but actually enhances consumer choice.

Brown Univ., 5 F.3d at 677.

119. See *NCAA v. Board of Regents*, 468 U.S. 85, 102 (1984); *Brown Univ.*, 5 F.3d at 675 ("Enhancement of consumer choice is a traditional objective of the antitrust laws and has also been acknowledged as a procompetitive benefit.").

rising to this challenge, balancing purely economic consumer choice arguments against other economic concerns.¹²⁰

If information platform regulation fully converged to anti-trust, courts could extend their analysis to consider the benefit of preserving a multitude of voices. Determining how much speech is enough—like determining how much innovation is enough—will not be easy. But an on-going dialog through common law litigation has served us well in developing First Amendment doctrine just as it has in the antitrust realm. Conversely, prior efforts at more specific speech regulation—e.g., FCC public interest hearings to license broadcast spectrum—have been, on the whole, no more successful than industry-specific economic regulation. Industry-specific speech regulation also raises the specter of too much government involvement in free speech. Antitrust with its natural preference for consumer choice may thus serve as a more productive and less objectionable forum within which to debate both economic and non-economic consumer welfare effects.

IV. INDUSTRY-SPECIFIC REGULATION

Industry-specific regulation is believed to be needed where cooperation among competitors is necessary in order to maximize consumer welfare and where the public interest demands consideration of goals other than short-run consumer welfare. Antitrust is generally thought to be incapable of achieving these results because it rarely imposes duties to cooperate.¹²¹ As explained in Section I, however, antitrust has proven quite adept at requiring cooperation when it is really essential.¹²² And Sections II and III explained how antitrust may incorporate long-run consumer welfare and free speech values. There is thus no inherent

120. For example, in the recent credit card litigation, the government argued that Visa and MasterCard violated the antitrust laws by adopting rules that prohibit banks from issuing American Express and Discover credit cards, and thereby reducing consumer choice. The court agreed, explaining that:

The addition of American Express and Discover will also increase the available supply and variety of network services. This will result in more card products for bank issuers and more options for consumers. . . . Whether or not similar products could also be issued on the Visa or MasterCard networks, restricting banks from issuing on the American Express or Discover networks restricts the choices available to them and their customers

. . . .
 . . . No amount of effort by American Express and Discover to issue through non-member banks, retailers or other organizations will provide consumers with the range of choices to which they are entitled.

United States v. Visa U.S.A., Inc., 163 F. Supp. 2d 322, 382-83 (S.D.N.Y. 2001).

121. See *supra* note 11.

122. See *supra* notes 12-17.

need for specifically tailored legislative pronouncements when the general body of antitrust law is seen as flexible enough to reach all threats to consumer welfare.

Nevertheless, industry-specific consumer-welfare regulation arguably could provide substantial benefits by clearly identifying *ex ante* the rights and obligations of the competitors in a way that the general antitrust laws cannot. But that theoretical benefit is unlikely to be realized. Congress has demonstrated a singular inability, or at least an unwillingness, to draft regulatory legislation that is clear enough to obtain this benefit. As Justice Scalia wrote in his opinion for the Court in *Iowa Utilities*:

It would be a gross understatement to say that the 1996 [Telecommunications] Act is not a model of clarity. It is in many important respects a model of ambiguity or indeed even self-contradiction. That is most unfortunate for a piece of legislation that profoundly affects a crucial segment of the economy worth tens of billions of dollars.¹²³

In the absence of industry-specific regulation, litigation would often be necessary to resolve particular disputes. Given the inherent uncertainties in the antitrust laws, the notion that private parties could often settle differences in the shadow of those laws is unlikely.¹²⁴ But industry specific regulation may be no better. The 1996 Telecommunications Act produced an explosion of litigation that remains unresolved five years later.¹²⁵

123. AT&T Corp. v. Iowa Utils. Bd., 525 U.S. 366, 397 (1999).

124. The uncertainty inherent in an antitrust regime has produced much criticism. See, e.g., Tom W. Bell, *The Common Law in Cyberspace*, 97 MICH. L. REV. 1746, 1754-55 (1999) ("Uncertainty about what constitutes an antitrust violation continues to undermine the rule of law and expose commerce to undue legal risks.") (citing sources). But as described in Section I above, the contributions of the Chicago School have done much to rationalize antitrust over the last decade and a half. Indeed, Bell cites little that has been written post-1986. More important, criticism along these lines fails to appreciate both the virtue in uncertainty and false sense of certainty that *ex ante* legislative rules generate.

125. Joel Klein described the process of implementing the 1996 Act as follows: Now, as I see it, the paradox of this kind of deregulatory effort is that it depends upon a series of regulatory steps — all taken, to be sure, in the name of deregulation — and those regulatory steps, in turn, can significantly affect the long-term prospects for full-scale competition in telephony. There is no formula or equation that one can look to in order to get these things right. They involve the exercise of discretion by government agencies, which in turn requires careful, sound judgments. And, given that these predictive judgments are necessarily based on incomplete information, we should all be somewhat humble in second-guessing those who have to make the calls.

Klein, *supra* note 4, at 5-6. Unfortunately, such a complicated task does lead to second-guessing and extensive litigation. A December 2001 Lexis-Nexis search turned up hundreds of cases dealing in some fashion with the 1996 Telecommunications Act. And, of course, many issues remain unresolved.

Even when industry-specific regulation is interpreted in a way that provides clear rules to govern competitive behavior in information platform markets, the antitrust laws may remain a substantively better regulatory device. By their nature, industry-specific rules intended to enhance consumer welfare would necessarily require both (a) costly conduct to conform to the rules that in some situations would have no measurable consumer-welfare benefit, and (b) permit some conduct that reduced consumer welfare but did not violate an *ex ante* rule.¹²⁶ The problem would likely worsen over time as firms learned to walk the line along the rule, figuring out ways to comply with the letter of the law without providing the intended consumer welfare benefits.¹²⁷ For example, firms may learn the maximum permissible delays in the implementation of a rule-required behavior. All this is not to say that clear rules are never useful. But the resistance to using clear rules in antitrust doctrine generally should lead us to think twice before assuming that industry-specific legislation is a superior alternative to antitrust as a regulator of competition among information platforms.

V. THE LEGISLATIVE/JUDICIAL POLICY MAKING DEBATE AND A TENTATIVE PROPOSAL

Even accepting that industry-specific regulation may not be administratively or substantively better than antitrust litigation driven policy-making, one might nonetheless favor industry-specific legislation simply because it is, well, legislation.¹²⁸ Indeed, a rallying call behind the 1996 Telecommunications Act charged

126. See LON L. FULLER, *THE MORALITY OF LAW* 64 (rev. ed. 1969) (“A specious clarity can be more damaging than an honest open-ended vagueness.”); MARK KELMAN, *A GUIDE TO CRITICAL LEGAL STUDIES* 27-28, 40 (1987); FREDERICK SCHAUER, *PLAYING BY THE RULES: A PHILOSOPHICAL EXAMINATION OF RULE-BASED DECISION-MAKING IN LAW AND IN LIFE*, 32-33 (1991) (“Factual predicates will therefore in some cases turn on features of the case that do not serve the rule’s justification, and in others fail to recognize features of the case whose recognition *would* serve the rule’s justification.”); *id.* at 149 (“These errors are not a function of mistakes that decision-makers may make, but instead are generated by decision-makers faithfully and accurately following the rules.”); *id.* at 50 (“This under- and over-inclusiveness . . . is largely ineliminable, the product of entrenchment and not simply of how specific or how general a rule happens to be.”); *id.* at 50 n.14 (“But rules achieve clarity, certainty, and determinateness, at the price of including either more or fewer cases in the legal categories defined by the rules than the rationale underlying the rule calls for.”) (quoting GERALD POSTEMA, *BENTHAM AND THE COMMON LAW TRADITION* 447 (1986)).

127. See KELMAN, *supra* note 126, at 41-42.

128. BORK, *supra* note 3, at 10 (“Antitrust is . . . law made primarily by judges. We are right to be concerned about the integrity and legitimacy of that lawmaking process At issue is the question central to democratic society: Who governs?”).

that a single federal judge, in the AT&T case the Honorable Harold Greene, should not be responsible for making telecommunications policy. Judge Greene was not acting alone, of course, the enforcement agencies contributed significantly. But our elected representatives—who we charge with the duty to make important policy decisions—were largely absent from the process.

Legislatively made policy may be preferable for two reasons: (1) a legislature is a deliberative body institutionally competent to take account of the broad spectrum of interests affected, and (2) it responds to democratic checks. The structural advantages usually attributed to legislatures, however, could be mimicked within agencies and courts in ways that would enable them to function more effectively than the legislature when dealing with information platform regulation. The legislature's openness and ability to take account of all interested views is often contrasted to the agency's isolated bureaucracy or the court's party-centered focus. But legislative openness can be mimicked through the public hearing process or through aggressive reliance on *amicus curiae* submissions. In addition, both agencies and courts may be superior to legislatures in that lobbying need not be complicated by campaign financing issues.

The benefits of democratic checks can also be achieved through aggressive legislative oversight of agency and litigation-based policy making. Legislative committees could monitor agency action and litigation and propose legislation to clarify, amend, or reverse a decision with which the legislature disagrees. This approach has been successfully employed many times, including the 1991 amendments to the Civil Rights Act,¹²⁹ and the supplemental jurisdiction statute.¹³⁰ Specifically in the antitrust context, Congress responded to *Citizens Publishing* with the Newspaper Preservation Act.¹³¹

In addition to structure, however, one might believe that legislators are more knowledgeable or better able to assemble relevant information with the assistance of their staffs than courts or agencies. But given the broad array of issues on which legislators must concern themselves and the political considerations that necessarily play a part in their decisions, expecting legisla-

129. The Civil Rights Act of 1991, Pub. L. No. 102-166 § 118, 105 Stat. 1071 (1991) (effectively overruling Supreme Court cases interpreting prior civil rights statutes).

130. 28 U.S.C. § 1367 (2000) (overruling a Supreme Court case interpreting the pendant and ancillary jurisdiction doctrine).

131. 15 U.S.C. § 1801 (2000) (creating certain antitrust privileges for newspapers).

tors to be experts in areas as complex as competition in information platform markets and to act on that expertise in an unbiased way is wholly unrealistic. Indeed, we should expect what we have gotten: Internally inconsistent legislation that provides legislators with language that they can cite to their constituencies and contributors as a victory, but that does little to guide agencies and courts in deciding the difficult issues.

The Federal Communications Commission and the Telecommunications Task Force of the Antitrust Division, by contrast, really are experts in the field. Each has a near 20-year history of cooperation in the regulation of information platforms through the enforcement of the Modified Final Judgment in the AT&T case and the 1996 Act. They meet regularly with firms and constantly study and analyze competition in the various markets through merger reviews, conduct investigations, and simply by listening to interested market participants. While individual bureaucrats surely have their biases, they are, at least, out of the direct campaign-finance line of fire.

Regulatory decisions, however, are ultimately made by judges, not bureaucrats. Antitrust law, to be sure, expects a great deal from judges. They must apply “an enquiry meet for the case, looking to the circumstances, details, and logic of a restraint,” and then “explain the logic of their conclusions . . . to subject . . . [them] to others’ critical analyses”¹³² Whether they live up to that expectation is another matter. The results in at least some of the litigation under the 1996 Telecommunications Act confirm the fear that district court judges, and even appellate panels, may not be sufficiently sophisticated to make competition policy in information platform markets.

But there is an alternative. The FTC has an existing network of administrative law judges (ALJs) with expertise in competition law and policy. A group of these ALJs could be developed with telecommunications expertise as well. While the notion of FCC and DOJ lawyers litigating before FTC ALJ’s certainly has no historical precedent, one could imagine an Article I tribunal in this mold in which the agencies and private plaintiffs brought antitrust cases dealing with information platform markets. Those cases could then be appealed to the District of Columbia Circuit, which would develop, if indeed it does not already have significant telecommunications and competition law expertise.

132. *Cal. Dental Ass’n v. FTC*, 526 U.S. 756, 780-81 (1999).

The bottom line is that despite the appealing structural safeguards inherent in the legislative process, agencies and courts could regulate information platforms more effectively through litigation and common law decision making if three criteria were satisfied. First, Congress would need to create a judicial forum with expertise in both competition policy and information platforms. Second, agency proceedings must be open to public comment and courts must receive and carefully consider amicus briefs. And third, Congress must actively monitor litigation driven policy-making, standing at the ready to correct missteps.

CONCLUSION

Antitrust law alone could serve as the single, unified regulatory doctrine for information platforms. Antitrust is broad enough to require the sort of cooperation that is essential to enhancing consumer welfare in information platform markets, and it is flexible enough to protect the incentives to innovate created by intellectual property law. Antitrust law is also capable of avoiding conflict with the First Amendment and even enhancing free speech interests generally.

Despite traditional reasons to prefer legislatively driven policy-making, Congress has not done a good job of drafting legislation that provides clear regulatory rules, perhaps because of unavoidable political pressures. Antitrust's more flexible consumer-welfare driven approach could better regulate cooperative competitive conduct in information platform markets. Further, the institutional benefits normally associated with legislation – institutional competence and democratic checks – could be preserved within an antitrust-driven regulatory structure through measures designed to ensure that (1) agency and judicial processes are more open and (2) legislatures aggressively oversee agency and court decisions.

MAINTAINING COMPETITION IN INFORMATION PLATFORMS: VERTICAL RESTRICTIONS IN EMERGING TELECOMMUNICATIONS MARKETS

JAMES B. SPETA*

INTRODUCTION

In the past several years, explicit attention to various competition problems (or, at least, alleged competition problems) in emerging information markets has led to something of a revival of vertical theories of competitive restraint. This development stands directly opposed to what had come to be the accepted law and economics approach to vertical restrictions; that there was little reason to think that vertical restrictions harmed consumers. The criticism of tying was only a part of an overall assault on monopoly leveraging theory and antitrust rules forbidding other forms of vertical restrictions, such as resale price maintenance, intrabrand territory and marketing restrictions, and exclusive dealing contracts. Beginning in the 1960s, law and economics scholars argued that vertical restrictions usually did not make sense as monopoly leveraging and, therefore, usually could be explained by economically positive (or at least neutral) motives and effects. This assault, while not completely successful, resulted in the substantial modification of antitrust law. In general, the legal rules that prior to these developments condemned tying, leveraging, and other vertical restraints were either overruled or substantially weakened.

Yet, despite what had become a dominant criticism of tying claims, exactly such a claim was a centerpiece of the most celebrated piece of antitrust litigation of the past twenty years, the Microsoft case. The government alleged that Microsoft illegally tied its Internet Explorer browser to its Windows operating system. Furthermore, the government argued that Microsoft maintained this tie through various illegal restrictions on the actions of downstream computer manufacturers who might otherwise in-

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errupt the tie (by installing other browsers or removing Explorer). The District Court accepted the tying theory and found against Microsoft on this claim.¹ The Court of Appeals vacated the judgment on the tying theory, on the ground that per se treatment of such a claim was not (yet) appropriate.² However, the Court of Appeals nevertheless affirmed other claims against Microsoft that were based on essentially the same facts.

The first generation criticism of monopoly leveraging has itself been subjected to extensive reevaluation, and it is not my intent (in this paper) to argue its merits or demerits on an absolute basis. Rather, I want to show that this theory has embedded itself in the law in a way that has resulted in some very significant pro-competitive moves in telecommunications regulation. In particular, I want to focus on the manner in which, in this model, the critique of tying, monopoly leveraging, and vertical restrictions on the one hand, and the concomitant importance of the tying claim in the *Microsoft* litigation on the other are not inconsistent on a theoretical level. As many commentators have noted, the tying claim in *United States v. Microsoft* was best conceived as a monopoly maintenance claim. In other words, Microsoft was not attempting to leverage its Windows monopoly into the Internet browser market; rather, Microsoft was attempting to protect its Windows monopoly from erosion by multi-platform browsers and associated middleware.³ This monopoly maintenance claim was the principal theory of the government's complaint,⁴ and it was a theory the Court of Appeals largely en-

1. See *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, 46-69 (D.D.C. 1999) (findings of fact); *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 37-44 (monopoly maintenance), 47-51 (leveraging into the browser market) (D.D.C. 2000), *aff'd in part, rev'd in part*, 253 F.3d 34 (D.C. Cir. 2001), *cert. denied*, 122 S. Ct. 350 (2001).

2. See *United States v. Microsoft*, 253 F.3d 34, 84-90 (D.C. Cir. 2001).

3. See, e.g., James B. Speta, *Tying, Essential Facilities, and Network Externalities: A Comment on Piraino*, 93 Nw. U. L. Rev. 1277, 1282 (1999); Jonathan Zittrain, *The Un-Microsoft Un-Remedy: Law Can Prevent the Problem It Can't Patch Later*, 31 CONN. L. REV. 1361, 1364-70 (1999); Mark A. Lemley & Larry Lessig, *Open Access To Cable Modems*, 22 WHITTIER L. REV. 3, 24 (2000).

4. See Complaint at ¶ 122, *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9 (D.D.C., 1999) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/f1700/1763.htm> (last visited June 25, 2002)

(Throughout Microsoft's internal analyses there is one consistent theme: Building a dominant Internet browser market share and restraining browser competition will protect Microsoft's Windows operating system monopoly. Microsoft has repeatedly recognized that the reason to win the browser war is to maintain the revenues and profits that flow from the PC operating system monopoly.)

The Complaint did include a straightforward leveraging theory in the alternative, *id.* at ¶ 5, but that was not the focus of the government's case.

dorsed.⁵ In an unregulated market, according to the law and economics view that eventually dominated anti-trust law, an attempt to use tying to leverage a monopoly from one market into another usually does not make economic sense because there is no “second rent” to earn. However, using tying to prevent potential competitors from entering the monopolized market does make economic sense, to protect the existing monopoly rent.

Although it was the most high profile case, *Microsoft* is not the only recent example of a tying or leveraging claim being advanced. In fact, such claims seem reasonably common in what Phil Weiser has helpfully titled “Information Platform” markets, *i.e.*, those markets that surround “software programs or hardware that facilitates the use of other applications.”⁶ For example, tying arguments were current in the cable company mergers of the past several years. Opponents of the mergers argued that cable companies were behaving anticompetitively in the high-speed Internet access market by tying ISP services to the underlying high-speed transport service over which the cable companies had market power.⁷ Similarly, some have expressed concern that cable companies or programmers will use proprietary “triggers” to tie Internet-based enhancements to their particular programs as interactive television markets develop.⁸ More generally, a number of commentators have worried that intellectual property and licensing policies are being used to leverage copyright or patent monopolies and impede competition.⁹

In this paper, I briefly review the evolution of some economic theories concerning vertical restrictions and relate those theories to a number of regulatory rules in telecommunications markets. Over several decades, a number of such regulatory rules have

5. *Microsoft*, 253 F.3d at 84, 89, 95-96; *see infra* notes 40-41 and accompanying text.

6. Philip J. Weiser, *Internet Governance, Standard Setting, and Self-Regulation*, 28 N. KY. L. REV. 822, 834 (2001); *see also* Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 102 COLUM. L. REV. (forthcoming 2002); Philip J. Weiser, *Law and Information Platforms*, 1 J. TELECOMMS. & HIGH TECH. L. 1 (2002).

7. *See generally* Mark Cooper, *Open Access to the Broadband Internet: Technical and Economic Discrimination in Closed, Proprietary Networks*, 71 COLO. L. REV. 1011 (2000); Lemley & Lessig, *supra* note 3; Mark A. Lemley & Larry Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925 (2001).

8. *See* Nondiscrimination in the Distribution of Interactive Television Services Over Cable, *Notice of Inquiry*, 16 F.C.C.R. 1321, 1328-30 (2001).

9. *E.g.*, Mark R. Patterson, *When Is Property Intellectual? The Leveraging Problem*, 73 S. CAL. L. REV. 1133 (2000); Dana R. Wagner, *The Keepers of the Gates: Intellectual Property, Antitrust, and the Regulatory Implications of Systems Technology*, 51 HASTINGS L.J. 1073 (2000) (discussing debate).

created competitive conditions in new markets. Rehearsing some of the successes of industry-specific regulation is itself important because it confronts the argument, which has had consistent strength, that antitrust law can and should provide all of the competition regulation that is necessary in telecommunications markets.¹⁰ However, this regulatory history can also suggest the appropriate regulatory response to the possible use of vertical exclusivity in an emerging information platform. Here, I take as an only somewhat hypothetical case study one evolution of a third generation wireless platform (3G). The extension of vertical exclusivity analysis to the expected 3G market is interesting for two reasons. First, 3G wireless would not only be a significant market in its own right, but would also have significant effects on other markets such as broadcast and wireline services. Second, and more importantly, mobile wireless services are one of the few currently competitive telecommunications markets.

In particular, it is possible that the advent of 3G services and the transformation of mobile wireless from a single-service platform to a multi-service information platform could present a threat to the competitive nature of the wireless market. The threat would develop if the initial developer of 3G infrastructure were to maintain an exclusive relationship with the 3G application providers, denying the other infrastructure providers the applications necessary to drive demand for their service. In fact, there is some anecdotal evidence that this occurred in Japan, when DoCoMo released its i-Mode product to great success. This scenario, which differs both from monopoly leveraging and monopoly maintenance, probably cannot be controlled only by antitrust law, but requires a regulatory response as well.

In all, I think these two different projects—reviewing some of the history of communications regulation and speculating about the possible development of a monopoly over 3G carrier services—establishes three propositions. First, both antitrust and industry-specific regulation have been successful at creating and maintaining competition in emerging communications markets. At times, industry-specific regulation has acted in a situation where antitrust enforcement probably would have not achieved the same result, either because the creation of a newly competitive market involved government requirements that the regulated entities develop new technologies necessary to facili-

10. See Steven Semeraro, *Regulating Information Platforms: The Convergence to Antitrust*, 1 J. TELCOMMS. & HIGH TECH. L. (2002).

tate competition, or because industry regulators acted on their predictive judgments about competitive markets (without establishing a formal antitrust case of abuse of market power). Second, almost all of these precedents can be rationalized under current economic theory in a way that provides a model that predicts a possible competitive problem in the emerging multimedia mobile wireless market. Third, an appropriate rule would forbid long-term exclusive contracting between a dominant 3G carrier and its content and application providers, and both antitrust and industry-specific regulation have a role to play in enforcing that rule.

Part I provides a brief overview of tying, leveraging, and vertical antitrust law. Part II reviews some significant episodes in telecommunications regulation, in which either the antitrust enforcers or the agency regulators forced the abandonment of a tying relationship or a similar vertical restriction in order to promote competition in an information platform market. Part III applies some of these lessons to a potential 3G market, particularly where a first-mover in 3G might enter into exclusive relationships with content and applications providers, forbidding them from dealing with later entrants, and ultimately eliminating the ability of other wireless carriers to upgrade and compete in 3G. Finally, Part IV assesses the likelihood of this scenario and suggests a regulatory response that combines both antitrust and traditional agency regulation.

I. THE EVOLUTION OF THE ANTITRUST RULES AGAINST TYING AND OTHER VERTICAL RESTRICTIONS

The antitrust doctrines forbidding tying and other vertical restrictions have undergone substantial development in response to economic critiques. Antitrust law long treated tying and some other vertical restrictions as per se illegal, until early law and economics scholarship argued that, for the most part, such restrictions either are unlikely to be motivated by anticompetitive intent or are unlikely to injure consumers (or both). In response, antitrust law, although it still labels some such practices as per se illegal, has substantially relaxed its condemnation. This story has been told several times¹¹; for current purposes, however, the important lesson to revisit is that leveraging theory (as a legal theory) had largely been supplanted. Antitrust law now con-

11. See generally Michael S. Jacobs, *The New Sophistication in Antitrust*, 79 MINN. L. REV. 1 (1994); Andy C.M. Chen & Keith N. Hylton, *Procompetitive Theories of Vertical Control*, 50 HASTINGS L.J. 573 (1999).

demns tying and other vertical restrictions principally in circumstances where such devices are used to maintain a monopoly threatened by actual or potential competitors or when used by price-regulated firms.

The Supreme Court historically treated tying¹² as per se illegal under both section 1 of the Sherman Act and section 3 of the Clayton Act, famously stating that tying “serve[s] no legitimate business purpose that cannot be achieved in some less restrictive way.”¹³ Other vertical restrictions, such as minimum¹⁴ and maximum¹⁵ resale price maintenance and intrabrand territorial or customer restrictions¹⁶ were also condemned as per se illegal. The dominant theory for the per se rules with regard to vertical restrictions was that these restrictions were illicit attempts by a company with market power to extend its power into additional markets, injuring competition and consumers in those markets.¹⁷

Beginning in the 1960s and 1970s, the law and economics scholarship that focused on antitrust law subjected the rules against tying and other vertical restrictions to a withering critique. This scholarship argued that, as to tying, “in the absence of price discrimination a monopolist will obtain no additional profits from monopolizing a complementary product.”¹⁸ An increase in the price of a complement necessary to consume a good over which the monopolist has market power will not increase the total profits of the monopolist, because the resulting price increase will simply depress demand for both of the goods.¹⁹ This argument, which is sometimes identified as the “one monopoly

12. Tying is “an agreement by a party to sell one product but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that product from any other supplier.” *N. Pac. R.R. v. United States*, 356 U.S. 1, 5-6 (1958). Tying can of course involve services as well as goods. *E.g.*, *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984) (claim of tying anesthesiology services to surgical admissions).

13. *Fortner Enters. v. United States Steel Corp.*, 394 U.S. 495, 503 (1969); *see also generally* *Standard Oil Co. v. United States*, 337 U.S. 293, 305-06 (1949); *IBM v. United States*, 298 U.S. 131 (1936).

14. *See, e.g.*, *Dr. Miles Med. Co. v. John D. Park & Sons Co.*, 220 U.S. 373 (1911).

15. *See, e.g.*, *Albrecht v. Herald Co.*, 390 U.S. 145 (1968).

16. *See, e.g.*, *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365, 381-82 (1967); *United States v. Bausch & Lomb Optical Co.*, 321 U.S. 707, 720-21 (1944).

17. *See, e.g.*, *N. Pac. R.R.*, 356 U.S. at 6 (tying agreements “deny competitors free access to the market for the tied product, not because the party imposing the tying requirements has a better product or a lower price but because of his power or leverage in another market.”); *Standard Oil*, 337 U.S. at 306; *IBM*, 298 U.S. at 137-40.

18. RICHARD A. POSNER, *ANTITRUST LAW: AN ECONOMIC PERSPECTIVE* 173 (1976).

19. *See id.*

rent” theorem, noted as an exception that price-regulated firms would have an incentive to attempt tying or other leveraging strategies because they were not earning their full monopoly rents in the market in which they had market power.²⁰ The law and economics movement similarly criticized rules against other vertical arrangements, contending that they largely did not injure consumers.²¹

Antitrust law responded to this changed economic analysis. Thus, although the Supreme Court still describes tying arrangements as illegal *per se*,²² it has qualified the claim in such a way that it now requires a showing of market power in the tying good, an explicit tying condition over a separable good or service, and the foreclosure of a “not insubstantial” amount of commerce in the tied market.²³ Although tying analysis has always considered, to some extent, the business justification offered for the tying arrangement, the new requirements²⁴ are such that the test for tying claims is now effectively a rule of reason analysis.²⁵

Similarly, antitrust law now generally has little concern for other vertical restrictions. The Court cut back the *per se* rule against maximum resale price arrangements²⁶ and later explicitly overruled it.²⁷ Additionally, the Supreme Court held that non-price vertical restraints, such as intrabrand territorial restrictions, would generally be subject to rule of reason, not *per se* analysis.²⁸ As the Court later emphasized, “in the vertical restraint context, ‘departure from the rule-of-reason standard must be based on demonstrable economic effect rather than . . . upon formalistic line drawing.’”²⁹ As several commentators have noted, leverage theory and other theories supporting *per se* re-

20. *E.g.*, ROBERT H. BORK, *THE ANTITRUST PARADOX* 376 (1978).

21. *See generally supra* notes 11, 18-20.

22. *See* *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 9 (1984).

23. *E.g.*, *Eastman Kodak Co. v. Image Technical Services*, 504 U.S. 451, 462 (1992); *Jefferson Parish*, 466 U.S. at 12-15.

24. *See* *Int'l Salt Co. v. United States*, 332 U.S. 392, 398 (1947); *IBM v. United States*, 298 U.S. 131, 139-40 (1936); *see also Jefferson Parish*, 466 U.S. at 21 n.33.

25. *See, e.g.*, *Jacobs, supra* note 11, at 10-12.

26. *See* *Atl. Richfield Co. v. USA Petroleum Co.*, 495 U.S. 328 (1990).

27. *See id.* at 335 n.5 (stating that the Court would assume, without deciding, that the *Albrecht* rule was correct); *State Oil Co. v. Kahn*, 522 U.S. 3 (1997) (overruling *per se* rule for maximum resale price maintenance).

28. *See* *Cont'l T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 57-59 (1977).

29. *Bus. Elecs. Corp. v. Sharp Elecs. Corp.*, 485 U.S. 717, 724 (1988) (quoting *Cont'l T.V.*, 433 U.S. at 59).

restrictions on vertical combinations rested upon “erroneous economic theory” and have largely been abandoned by the law.³⁰

Although the foundation of economic analysis maintained that it was generally implausible that a monopolist would use vertical restrictions to extend monopoly power from one market to another, that scholarship always distinguished from cases in which a company with market power uses such a restriction to maintain its monopoly power. The classic legal example is *Lorain Journal Co. v. United States*.³¹ In that case, the Lorain Journal was the only newspaper in town.³² When a new radio station began broadcasting in the area, the Journal required advertisers in the paper to agree that they would not advertise on the radio station.³³ The Supreme Court condemned this tying arrangement as an attempt to maintain the Journal’s monopoly in the advertising market.³⁴

This sort of monopoly maintenance theory made economic sense in the *Microsoft* case.³⁵ The district court found against Microsoft on a tying theory, explicitly finding that Microsoft had tied Internet Explorer (IE) to Windows both in an attempt to protect the Windows monopoly *and* in an attempt to leverage that Windows monopoly into the market for Internet browsers.³⁶ The court of appeals vacated and remanded the tying claims on the ground that per se analysis was inappropriate in this “first up-close look at the technological integration of added functionality into software that serves as a platform for third-party applications.”³⁷ The court of appeals thought there might be merit to Microsoft’s claims that “the bundling of IE APIs (application program interfaces) with Windows makes the latter a better applications platform for third-party software,”³⁸ and that a per se rule

30. *E.g.*, Herbert Hovenkamp, *Tying Arrangements and Class Actions*, 36 VAND. L. REV. 213, 228 (1983); Chen & Hylton, *supra* note 11, at 576-77; Jacobs, *supra* note 11, at 10-15.

31. *Lorain Journal Co. v. United States*, 342 U.S. 143 (1951).

32. *Id.* at 145.

33. *Id.* at 145-46.

34. *Id.* at 152-54.

35. *See, e.g.*, Zittrain, *supra* note 3, at 1361, 1364; David McGowan, *Innovation, Uncertainty, and Stability in Antitrust Law*, 16 Berkeley Tech. L.J. 729, 795-96 (2001); Speta, *supra* note 3, at 1282 (1999).

36. *See United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 37-44 (D.D.C. 2000) (monopoly maintenance); *id.* at 47-51 (leveraging into the browser market).

37. *United States v. Microsoft Corp.*, 253 F.3d 34, 84; *see also id.* at 93 (“[B]ecause of the pervasively innovative character of platform software markets, tying in such markets may produce efficiencies that courts have not previously encountered and thus the Supreme Court had not factored into the per se rule as originally conceived.”).

38. *Id.* at 90.

against the combination of previously separate products would “chill innovation to the detriment of consumers by preventing firms from integrating into their products new functionality previously provided by standalone products. . . .”³⁹

Nevertheless, the court of appeals did affirm much of the government’s monopoly maintenance theory, and some of the specific practices challenged were themselves tying requirements. Thus, the court found that Microsoft was attempting to maintain its Windows monopoly through its licensing requirements that conditioned a computer manufacturer’s right to buy Windows software on its agreement to refrain from removing visible means of user access to IE⁴⁰ and through the exclusive dealing condition attached to its distribution of IE to Internet access providers.⁴¹ As the court repeatedly noted, “[t]he facts underlying the tying allegation substantially overlap with those set forth . . . in connection with the § 2 monopoly maintenance claim.”⁴²

In summary, into the 1980s and 1990s the economic critique of vertical antitrust law resulted in legal doctrine centered around three principles. First, vertical restrictions were generally not problematic, because monopoly leveraging generally did not make economic sense and because other vertical restrictions generally did not harm consumers. Second, the “one monopoly rent theorem” had several exceptions. The principal two exceptions were (1) instances in which a firm with monopoly power was price-regulated in its principal market⁴³ and (2) instances in which leveraging could facilitate price discrimination.⁴⁴ (Some economists further demonstrated, of course, that price discrimination might not hurt consumer welfare or injure competition.⁴⁵) Other exceptions include situations in which significant economies of scale in the tied good market to obtain⁴⁶ and situations

39. *Id.* at 89 (quoting Brief for Appellant at 69); *see also id.* at 92-93 (questioning “separate demand” test for identifying separate products in “platform software markets”).

40. *See id.* at 60-64.

41. *See id.* at 67-70.

42. *Id.* at 84; *see also id.* at 89; *id.* at 95-96.

43. *See, e.g.,* Bork, *supra* note 20, at 386.

44. *See, e.g.,* Posner, *supra* note 18, at 176.

45. *See generally* Hal R. Varian, *Price Discrimination*, in 1 HANDBOOK OF INDUSTRIAL ORGANIZATION 596, 600-03 (Richard Schmalansee & Robert. D. Willig eds., 1989); George Stigler, *United States v. Loew’s Inc.: A Note on Block-Booking*, 1963 SUP. CT. REV. 152, 152-54 (1964); Richard Schmalansee, *Output and Welfare Implications of Monopolistic Third Degree Price Discrimination*, 71 AM. ECON. REV. 242 (1981).

46. *See, e.g.,* Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837 (1990); Patrick DeGraba, *Why Lever into a Zero-Profit Industry: Tying, Foreclosure, and Exclusion*, 3 J. ECON. & MGMT. STRATEGY 433 (1996).

where vertical exclusivity can raise rivals' costs.⁴⁷ Third, tying or vertical exclusivity strategies would make sense in situations in which they could create barriers to entry or otherwise facilitate the maintenance of monopoly power.

II. EXAMPLES OF VERTICAL SEPARATIONS TO CREATE OR PROTECT COMPETITION IN TELECOMMUNICATIONS MARKETS

In telecommunications markets, legal rules have often been used to forbid tying or other vertical relationships. Sometimes these rules have been the result of antitrust litigation; more commonly they have been imposed by agency regulation. Even in the latter instance, however, the regulator generally had in mind an economic result—that a rule requiring vertical separation or otherwise ending an exclusive vertical relationship would create or maintain competition.

This section briefly reviews some of the familiar (and a few less familiar) examples of such vertical separation rules, relating them to the antitrust economics that seemed to inspire them and attempting to group them by kind.⁴⁸ Although the dominant examples are rules that attempt to eliminate leveraging by regulated monopolists or to create competition in potentially competitive markets (or both), there are also significant examples of such rules that are intended to prevent the maintenance of monopoly. In each instance, the rules had the effect of furthering the development of competition in an information platform market or a closely related market. This section concludes with a brief look at the conditions the government imposed on its approval of the AOL/Time Warner merger.

This survey is important not only to review the precedents for rules against vertical exclusivity in telecommunications markets, but also to confront the argument that antitrust can provide all of the competition regulation necessary in telecom-

47. See, e.g., J.A. Ordover, G. Saloner, & S. Salop, *Equilibrium Vertical Foreclosure*, 80 AM. ECON. REV. 127 (1990); Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs To Achieve Power Over Price*, 96 YALE L.J. 209 (1986).

48. Christopher Yoo has recently surveyed some vertical restraints in media markets, such as broadcast networks and cable television. Yoo also provides an excellent discussion, quite accessible to lawyers, of some of the more modern economics that may question the one monopoly rent school. See Christopher Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 YALE J. ON REG. 171 (2002).

munications markets.⁴⁹ I identify a number of instances in which regulatory rules created competition in circumstances in which the antitrust laws may not have been able to act as efficiently.

A. *Vertical Separation to Eliminate Leveraging and Create Competitive Markets*

The obvious example of vertical separations rules to eliminate leveraging and create competitive markets is the granddaddy of all government antitrust litigation (even after the *Microsoft* case): the break-up of the integrated Bell System as a result of *United States v. American Telephone and Telegraph Company*.⁵⁰ The principal result of the AT&T case was the entry of a consent decree separating the local telephone elements of the Bell System from its long-distance elements. The newly formed Bell Operating Companies were forbidden from re-entering the long-distance market, thereby creating market separation between local and long-distance telephony.⁵¹ Such separation made sense, because competition in long-distance service was technologically feasible, and because the costs of implementing equal access (i.e., non-discriminatory interconnection between local carriers and multiple long-distance carriers) was relatively inexpensive.⁵² Moreover, both courts and commentators agreed

49. See, e.g., PETER HUBER, *LAW AND DISORDER IN CYBERSPACE* (1997); Steven Semeraro, *Regulating Information Platforms: The Convergence to Antitrust*, 1 J. TELECOMMS. & HIGH TECH. L. 143 (2002).

50. See *United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982) (Decree Opinion), *aff'd*, *Maryland v. United States*, 460 U.S. 1001 (1983).

51. See *AT&T*, 552 F. Supp. at 188-89. Complete separation was attained only after the entry of the GTE Decree, *United States v. GTE Corp.*, 603 F. Supp. 730 (D.D.C. 1984), and the FCC's promulgation of equal access rules applicable to all local telephone companies, MTS and WATS Market Structure Phase III, *Report and Order*, 100 F.C.C.2d 860 (1985). The GTE Decree and the FCC rules did not forbid the non-BOC local telephone companies from providing both local and long-distance service, and so for these carriers the separation was not a structural quarantine. Rather, in each case, the rules required the local companies to provide equal access to all non-affiliated long-distance companies. See *id.* at 878-80; *AT&T*, 603 F. Supp. at 743-46.

52. See *AT&T*, 552 F. Supp. at 195-200. Howard Shelanski and Greg Sidak, in developing a general test for the appropriateness of divestiture remedies, have persuasively made the point that commentators lauding the success of the AT&T decree usually fail to take into account the unanticipated and continued costs of administering the decree—especially its procedures for seeking waivers (or elimination) of the line of business restrictions. Howard A. Shelanski & J. Gregory Sidak, *Antitrust Divestiture in Network Industries*, 68 U. CHI. L. REV. 1, 35-36, 90-96 (2001). Their general structure, of weighing the competition gains from divestiture against any losses in productive efficiency plus the costs of enforcement in order to determine whether divestiture is the better remedy, does however match with the intent of the entry of the AT&T Decree. See generally *AT&T*, 552 F. Supp. at 165-70.

that AT&T had an economic incentive to attempt to leverage its monopoly power in local telephone markets into the long-distance market, because it was constrained by price regulation from recovering all of the rents of its local monopolies.⁵³

The same theory that underlay the AT&T Consent Decree's separation of local and long-distance also served to justify rules later requiring the separation of local and local toll service. This is true both in the few states that ordered intraLATA toll competition before the 1996 Act⁵⁴ and in the 1996 Act's local dialing parity rules (as interpreted by the FCC).⁵⁵ Similarly, the underlying anti-leveraging theory forms the basis for the Act's continued restriction on BOC entry into long-distance markets until such time as competition is possible in the local exchange.⁵⁶

It is interesting to contrast the 1982 AT&T Consent Decree, with an earlier antitrust proceeding against AT&T, the proceedings which resulted in the so-called Kingsbury commitment. In the early part of the 20th century, local telephony was often provided by competing companies.⁵⁷ At that time, AT&T had developed an extensive nationwide network and held patents over technology providing superior long-distance services. It refused to interconnect that service with unaffiliated local companies, instead offering to purchase them as part of the company's attempt to realize Theodore Vail's motto of "one policy, one system, universal service."⁵⁸ The government filed suit, and the parties

53. See *MCI v. AT&T*, 708 F.2d 1081, 1144 (7th Cir. 1983) (making this point in evaluating MCI's tying claim against AT&T in the private case); BORK, *supra* note 20 at 374-75 (commenting on AT&T litigation); see also, e.g., Paul L. Joskow & Roger Noll, *The Bell Doctrine: Applications in Telecommunications, Electricity, and Other Network Industries*, 51 STAN. L. REV. 1249, 1289-50 (1999).

54. See generally Craig D. Dingwall, *The Last Mile: A Race for Local Telecommunications Competition Policy*, 48 FED. COMM. L.J. 105, 110, 113-18, 127-29 (1995) (discussing status of state regulation of interLATA toll competition); Peter Siembab, *Opening the IntraLATA Market in California: Tolls Drop but Casualties Rise*, 28 LOY. L.A. L. REV. 1453 (1995).

55. See 47 U.S.C. § 251(b)(3) (Supp. V 1999) (requiring local dialing parity); Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, *Second Report and Order and Memorandum Opinion and Order*, 11 F.C.C.R. 19392, 19428 (1996) [hereinafter *Second Local Competition Order*].

56. See 47 U.S.C. § 271 (Supp. V 1999) (requiring BOC compliance with a competitive checklist of unbundling requirements as well as the demonstrated possibility of local competition); see generally Marius Schwartz, *The Economic Logic for Conditioning Bell Entry into Long Distance on the Prior Opening of Local Markets*, 18 J. REG. ECON. 247 (2000).

57. See generally Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1345 (1998).

58. See generally Joseph D. Kearney, *From the Fall of the Bell System to the Telecommunications Act: Regulation of Telecommunications Under Judge Greene*, 50 HASTINGS L.J. 1395, 1404 n.22 (1999); GERALD W. BROCK, *THE TELECOMMUNICA-*

reached a consent decree that required the Bell System to interconnect with unaffiliated local telephone companies and to suspend its acquisition of unaffiliated local companies.⁵⁹ Although the effectiveness of this decree was short-lived, as it was, in part, nullified by subsequent legislation,⁶⁰ the interconnection obligation, *i.e.*, the rule against vertical exclusivity of long-distance and local, was designed to maintain competition in the competitive local telecommunications industry.

In a manner similar to the 1982 AT&T Consent Decree's elimination of the tie between local and long-distance service, a number of rules restricted the scope of the telephone "network" in order to create competition in network attachments. Perhaps the most familiar of these was the FCC's ruling, in the *Computer II* proceedings, that customer premises equipment (CPE) (*i.e.*, telephones) were no longer to be part of the "network" and had to be competitively provided.⁶¹ The *Computer II* proceeding and the FCC's subsequent rules setting interconnection standards for network attachments⁶² were prodded by a series of court decisions that recognized a customer's right to attach to the network any device that was privately beneficial, so long as it was not harmful to the network.⁶³ The FCC's decision did not explicitly discuss the economic motive that a local telephone company would have to tie telephones to telephone service. Rather, the FCC simply stated that customer premises equipment was now capable of being competitively provided and that the development of such a competitive industry would be in the public interest.⁶⁴ Nevertheless, under the antitrust economics as it was then developing, a rate-regulated local monopolist would have the

TIONS INDUSTRY: THE DYNAMICS OF MARKET STRUCTURE 151-58 (1981); PETER TEMIN & LOUIS GALAMBOS, *THE FALL OF THE BELL SYSTEM* 9 (1987).

59. See *United States v. AT&T*, 1 Decrees & Judgments in Civil Federal Antitrust Cases 554 (D. Or. 1914).

60. The 1921 Willis-Graham Act gave the Interstate Commerce Commission the authority to review telephone company mergers and to immunize the merger from the antitrust laws. This authority was transferred to the FCC, see 47 U.S.C. § 221(a) (1994), where it remained until the provision was repealed as part of the 1996 Act, see Telecommunications Act of 1996, Pub. L. 104-104, § 601(b)(2) (Supp. V 1999).

61. See Amendment of Section 64.702 of the Commission's Rules and Regulations, *Final Decision*, 77 F.C.C.2d 384 (1980) [hereinafter *Computer II*].

62. See Proposal for New or Revised Classes of Interstate and Foreign Message Toll Telephone Service (MTS) and Wide Area Telephone Service (WATS), *Second Report and Order*, 58 F.C.C.2d 736 (1976), *aff'd*, *North Carolina Utils. Comm'n v. FCC*, 552 F.2d 1036 (4th Cir. 1977).

63. See *Hush-A-Phone Corp. v. United States*, 238 F.2d 266 (D.C. Cir. 1956); *Litton Systems, Inc. v. AT&T*, 700 F.2d 785 (2d Cir. 1983).

64. *Computer II*, *supra* note 61, at 439-40.

same incentive to leverage its controlled monopoly over local service into the market for CPE as it would have to leverage it into long distance.⁶⁵

The principle embodied in Computer II, that subscribers could attach anything to the network and use the network in any way they wished so long as they did not damage the network, served to transform the telephone network from a single-service voice network to something more like a modern information platform. It was this rule that opened the possibility of attaching modems to ordinary telephone lines (hence eventually enabling the Internet), along with fax machines and even crude video cameras.⁶⁶ Over the years, the FCC has promulgated a number of rules that similarly redefine the “network” in order to create new, competitive markets. For example, the FCC required the deregulation of so-called “inside wire” by defining the network as to not include the premises wiring of a subscriber.⁶⁷ Although the FCC did not phrase its reasoning in such terms, the rule served to create competition in the markets for installation and repair of such wiring.⁶⁸ Moreover, if there were competing local telephone companies that had their own infrastructure, such a rule would decrease a customer’s switching costs, thereby enhancing competition.⁶⁹ Some have argued that the lack of similarly clear and absolute inside wire rules for cable television impedes the development of competition in that market.⁷⁰ Simi-

65. See Jim Chen, *The Legal Process and Political Economy of Telecommunications Reform*, 97 COLUM. L. REV. 835, 843-44 (1997). Kearney and Merrill note that this is a post-hoc justification for the FCC’s policy, see Kearney & Merrill, *supra* note 57, at 1341, but it is still consistent with the then developing economic theory.

66. See, e.g., Francois Bar, et al., *Access Policy for a Third Generation Internet*, 24 TELECOMMS. POL’Y 498, 503-05 (2000).

67. Review of Sections 68.104 and 68.102 of the Commission’s Rules, *Report and Order*, 5 F.C.C.R. 4686 (1990).

68. *Id.* at 4691 (stating that rules forbidding customer provision of inside wire “restricts consumer options, and imposes costs on the availability of useful devices and services”).

69. E.g., Paul Klempner, *Competition when Consumers have Switching Costs: An Overview with Applications to Industrial Organization, Macroeconomics, and International Trade*, 62 REV. ECON. STUDIES 515 (1995). Joe Farrell and Carl Shapiro have shown that switching costs may actually induce entry (including inefficient entry), but their result depends upon the incumbent market-leader’s inability to price discriminate between old and new customers. See Joseph Farrell & Carl Shapiro, *Dynamic Competition with Switching Costs*, 19 RAND. J. ECON. 123, 124 (1988). In the competitive telecommunications market envisioned, such price discrimination is possible because service is linked to a particular physical location. As an empirical example, cable companies often offer initial-term discounts as a manner of price-discriminating between old and new customers.

70. See generally Telecomms. Servs. Inside Wiring, *Report and Order and Second Further Notice of Proposed Rulemaking*, 13 F.C.C.R. 3659, 3670-719 (1997) (discussing status of inside wiring rules for cable wiring).

larly, Judge Greene interpreting the AT&T Consent Decree,⁷¹ the FCC by rule,⁷² and the 1996 Act by statute⁷³ have all required the interconnection of pay telephones to the local network, leading to the competitive provision of such services.⁷⁴

B. Rules To Prevent Monopoly Maintenance

There are fewer examples in telecommunications markets of antitrust or agency regulation being used to prevent monopoly maintenance. Of course, each of the foregoing rules could be viewed to some extent as preventing the maintenance of monopoly. Tim Bresnahan and others have persuasively made the point that entry into a formerly monopolized market is most likely to come from participants in a vertically related market.⁷⁵ This is because firms in those related markets will develop relevant technical and business expertise, customer relationships, and a marketing presence. Under this theory, there is always concern, from a long-term perspective, about practices that exclude competition in vertically related markets. Therefore, the rules that created competition in markets adjacent to the local telephone monopoly might be seen as creating the conditions for the degradation of that monopoly. In fact, some of the most effective, aggressive entry into local telephone markets has come from an affiliate of MCI, the initial long-distance competitor.⁷⁶

71. See *United States v. Western Elec. Co.*, 583 F. Supp. 1257, 1259 (D.D.C. 1984) (granting AT&T's request to provide coinless pay telephones, ruling that payphones were necessary for access to interexchange communications).

72. See *Registration of Coin Operated Telephones*, 49 Fed. Reg. 27763 (July 6, 1984).

73. See 47 U.S.C. § 276 (Supp. V 1999).

74. There are a number of differences between these provisions, the most important of which was that the FCC treated the payphones provided by local telephone companies as part of the network and subject to state rate regulation. The 1996 Act ended this by forbidding LEC subsidies of payphone service and prohibiting BOC discrimination in favor of its own payphone services. *Id.* The FCC ruled that local telephone companies must therefore transfer their payphones to unregulated jurisdiction. Implementation of the Pay Tel. Reclassification and Comp. Provisions of the Telecomms. Act of 1996, *Report and Order*, 11 F.C.C.R. 20541, 20611 (1996). But the driving point of all of these requirements was to introduce competition into a new market for payphone service.

75. See Timothy F. Bresnahan, *New Modes of Competition: Implications for the Future Structure of the Computer Industry*, in *COMPETITION, INNOVATION, AND THE MICROSOFT MONOPOLY: ANTITRUST IN THE DIGITAL MARKETPLACE* 155 (1999).

76. AT&T and Sprint are also entrants in the local market, but they often acquired their local companies by acquisition, such as AT&T's acquisition of TCG and Teleport (two competitive access providers) and of TCI and MediaOne (cable companies that were potential CLECs) and Sprint's acquisition of United Telephone, a predominantly rural LEC.

Nevertheless, it is possible to identify a few instances in which monopoly maintenance was the explicit concern of a regulation adopted to forbid vertical exclusivity. The first example, 800 number portability, may seem somewhat esoteric, but is actually an example of a number of related rules. The 800 number portability rules were designed to ensure that AT&T would have no continuing monopoly power over interexchange 800 services (or at least no monopoly power over the subset of customers for whom number portability was important). General number portability is a part of the 1996 Act's local competition requirements. Number portability is, moreover, an example of similar rules designed to ensure that the local monopolist's power erodes as quickly as possible. The second example is the FCC's rules forbidding exclusive contracts between cable programmers and cable operators. As part of the 1992 Cable Act, Congress directed that the FCC develop such rules in order to ensure that cable television companies could not lock up popular programming, thereby stunting the development of alternative multichannel video platforms such as direct broadcast satellite.

Prior to the AT&T Consent Decree, MCI and other specialized carriers provided only a limited amount of such 800 service, yet providing such service was an important component of business long-distance services.⁷⁷ Unlike the general consumer long-distance or even the general business market, the Decree's equal access and line-of-business restrictions would not ensure a fully competitive market in 800 services. This is because many business customers had substantial investments in particular numbers and the equal access decree did not provide a means by which the customer could switch its long-distance provider while retaining its number.⁷⁸

The underlying reason that equal access alone did not solve the problem was technological. In order to implement the "1+" dialing aspect of equal access, a switch simply needed a small block of memory that associated each line attached to the switch with that customer's pre-subscribed interexchange carrier. On the placing of any long-distance call, the switch would simply look to that internal memory block to determine to which inter-

77. See generally *United States v. AT&T*, 604 F. Supp. 316, 320 (D.D.C. 1985) (rejecting request to modify plan of reorganization to require AT&T to provide access to its common channel signaling databases to facilitate 800 portability); *Competition in the Interstate Interexchange Marketplace, Report and Order*, 6 F.C.C.R. 5880, 5903-08 (1991) [hereinafter *Competition Order*].

78. *Competition Order*, *supra* note 77, 6 F.C.C.R. at 5904; see *AT&T*, 604 F. Supp. at 322-24.

exchange carrier the call should be routed. For 800 numbers, routing a call to the correct interexchange carrier is a difficult proposition because the correct interexchange carrier is determined not by the calling party's pre-subscription, but rather by the called party's interexchange company (because the called party pays for the call). Number portability would therefore have required each central office switch⁷⁹ to have memory to store the associations between all possible 800 numbers and particular long-distance carriers. The local switches simply did not have this capability. All that could be done at the local switch level was to associate blocks of 800 numbers with particular carriers (based upon the first three digits of the 800 number). Under the Decree, this was permissible, because the local companies were giving each long-distance carrier access that was equal in terms and quality.⁸⁰

As a result, those customers that had invested in particular 800 numbers, through marketing or otherwise creating an association between their company and a particular 800 number, would face substantial costs in switching their 800-service from one long-distance carrier to another (i.e., from AT&T to a competitor).⁸¹ These switching costs worked in AT&T's favor, making it harder for competitors to win customers simply through lower prices or better service. Therefore, in order to erode AT&T's market power over 800-services, the FCC ordered the development of network technology to implement 800 number portability.⁸² The FCC's rule thus eliminated a source of monopoly maintenance power, carrier control over particular numbers. The 1996 Act ordered local number portability for the same reason.⁸³

Similarly, a few of the items in the competitive checklist, which serves as a precondition to the BOCs' entry into long-distance,⁸⁴ can be viewed as vertical separations rules designed to decrease switching costs and therefore to eliminate a possible source of monopoly maintenance by the BOCs. In particular, the requirements that the BOCs provide nondiscriminatory access to

79. This problem could have been solved at the access tandem level only if no interexchange carrier connected directly to central office switches. But, of course, AT&T did quite extensively.

80. *AT&T*, 604 F. Supp. at 322-24.

81. Compare *supra* note 69 and accompanying text (discussing switching costs).

82. *Competition Order*, *supra* note 77, at 5905.

83. See 47 U.S.C. § 251(b)(2) (Supp. V 1999); Telephone Number Portability, *First Report and Order and Further Notice of Proposed Rulemaking*, 11 F.C.C.R. 8352, 8367-68 (1996).

84. See 47 U.S.C. § 271(c)(2)(B) (Supp. V 1999).

911 service and white-pages directory listings serve such a purpose.⁸⁵ Just as with telephone numbers, 911 service and white-pages directory listing are services which may be best provided singly.⁸⁶

The second example is the provision of the 1992 Cable Act that required programmers affiliated with cable companies to sell their programs on nondiscriminatory terms and conditions to all other providers of multi-channel video programming.⁸⁷ In 1992, Congress had one thing in mind—that direct broadcast satellite service would never become a true competitor to cable service unless it had access to those programs that had achieved substantial popularity via cable systems.⁸⁸ In its implementing regulations, the FCC explicitly stated that such rules were designed to prevent monopoly maintenance strategies by the cable companies.⁸⁹ It may be possible to doubt whether this rule con-

85. See 47 U.S.C. § 271(c)(2)(B)(vii)(I), (viii) (Supp. V 1999).

86. A few additional words of explanation are in order. First, the reasons that these services may best be provided singly probably differ. It is technologically impossible to have duplicative telephone numbers being issued for the public switched telephone network. By contrast, it is technologically possible to have more than one white-pages directory, although it may be that the market is a quasi-natural monopoly market in that consumers would not tolerate more than a single white pages. (The day may come in which computer access is sufficiently cheap and easy that consumers could easily search a number of white-pages listings simultaneously. But that day is not here.) Similarly 911 centers may not be natural monopolies, but the efficiencies to public services from concentrating 911 centers may be sufficient to order their single provision.

Second, I do not view the other elements of 47 U.S.C. § 251(c) or § 271(c)(2)(B) as vertical separations rules designed against monopoly maintenance concerns. These other rules seem to be access requirements designed to permit entrants to take advantage of the incumbent's economies of scale, scope, or density. To take one example, 47 U.S.C. § 271(c)(2)(B)(vii)(II) orders the BOC to provide access to directory assistance services. As the underlying directory information is computerized, there would seem to be no reason that directory assistance centers need be centralized. And, in fact, the FCC has held that directory assistance need not be provided as an unbundled network element under 47 U.S.C. § 251(c)(4). See *Second Local Competition Order*, *supra* note 55, at 19461-63 (while ordering access to the listings).

87. See generally James B. Speta, *The Vertical Dimension of Cable Open Access*, 71 U. COLO. L. REV. 975, 1003-04, 1006 (2000).

88. See *id.* at 1004; S. Rep. No. 102-92, at 26, *reprinted in* 1992 U.S.C.C.A.N. at 1159; Nicholas W. Allard, *The 1992 Cable Act: Just the Beginning*, 15 HASTINGS COMM. & ENT. L.J. 305, 311-33 (1993); James W. Olson & Lawrence Spiwak, *Can Short-Term Limits on Strategic Vertical Restraints Improve Long-Term Cable Industry Market Performance?*, 13 CARDOZO ARTS & ENT. L.J. 283, 292-95 (1993); David Waterman, *Vertical Integration and Program Access in the Cable Television Industry*, 47 FED. COMM. L.J. 511 (1995).

89. Implementation of Sections 12 and 19 of the Cable Television Consumer Protection and Competition Act of 1992, *First Report and Order*, 8 F.C.C.R. 3359, 3383-87 (1993).

tinues to be necessary.⁹⁰ However, it seems clear that the rule helped ensure DBS's initial success,⁹¹ such that it is becoming a serious competitor to cable service.⁹²

C. Something for Everyone: The AOL/Time Warner Merger Decree

The AOL/Time Warner merger proceedings, the most recent of a number of merger proceedings with significance for Internet markets, contained something relevant to all variety of vertical competition theories. I will note two features of the conditions that the Federal Trade Commission and the FCC imposed upon the merger. First, as in the earlier AT&T/TCI and AT&T/MediaOne mergers, opponents argued that the merger would injure competition in the market for broadband ISP services by creating an illicit tie between high-speed transport service and ISP service.⁹³ This was a leverage theory, and the FTC and the FCC apparently accepted some version of this argument, for each agency conditioned the merger on the parties' agreement that, at the time the new company began to offer AOL ISP service over cable systems, a limited number of other broadband ISPs would have the ability to offer service over the same cable systems on nondiscriminatory terms.⁹⁴ The FTC and FCC's opinions supporting this condition are somewhat disappointing; the agencies merely assert that the combined company would have the incentive to discriminate against unaffiliated ISPs, without linking that argument to any economic literature or model.⁹⁵

90. Christopher Yoo has written that, given the present competition to cable from DBS and the expected competition from LMDS, MMDS, and similar services, there is no economic reason to retain them. *See* Yoo, *supra* note 48, at 248. I think it questionable whether prospective competition should be taken into account, for if cable still has sufficient power to drive DBS from the market, then new entrants would similarly be deterred. R

91. *See* Waterman, *supra* note 88, at 513-20. R

92. *See generally* Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, *Eighth Annual Report*, FCC No. 01-389, at ¶¶ 55-66 (Jan. 14, 2002).

93. *See generally supra* note 7.

94. *See* America Online, Inc., and Time Warner Inc.; Analysis To Aid Public Comment, 65 Fed. Reg. 79,861, at 79,863 (Dec. 20, 2000) [hereinafter FTC]; Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner, Inc., Transferee, *Memorandum Opinion and Order*, 16 F.C.C.R. 6547 (2001) [hereinafter *FCC AOL/TW Order*].

95. The FCC's order explicitly adopts the theory that the combined firm would discriminate against unaffiliated ISPs, but the order makes no reference to any of the economic literature that would call into question such a bald leveraging theory. *See FCC AOL/TW Order, supra* note 94, at 6585-92. The FTC's "Analysis To Aid Public Comment" on its consent decree does not explicitly endorse the theory, but R

Second, the FTC and FCC decrees required AOL to offer its broadband ISP service to Digital Subscriber Line (DSL) carriers on terms and conditions designed to ensure that the DSL carriers received an equal footing with AOL/Time Warner itself.⁹⁶ This condition was explicitly based on a monopoly maintenance theory. Cable systems had a wide lead over DSL in the provision of residential high-speed Internet access services, while AOL had a substantial lead over everyone else in ISP services.⁹⁷ If Broadband AOL were only available over cable lines following the merger, competition from DSL would be substantially hindered.⁹⁸

In summary, there are a number of examples of vertical separations rules in the telecommunications industry that serve to increase competition. These rules are of two principal types, as suggested by a widely recognized set of economic theories: (a) rules designed to eliminate a rate-regulated monopolist's ability to leverage its monopoly into a potentially competitive market, and (b) rules designed to ensure that a monopolist could not employ a tying arrangement or similar vertical strategy to maintain its monopoly against developing competition in that market.

Moreover, the FCC adopted many of these rules in circumstances in which antitrust enforcement to achieve the same result would have been difficult. In the CPE, inside wire, and number portability examples, the FCC's order required the development of technology that did not yet exist in order to achieve separation of the markets.⁹⁹ In a prototypical antitrust case involving tying, by contrast, the plaintiff must establish that there are two separate product markets. As the *Microsoft* case showed, this is sometimes quite difficult,¹⁰⁰ and the difficulty is com-

merely explains that the conditions would "prevent discrimination by Proposed Respondents as to non-affiliated ISPs on the basis of affiliation." FTC, *supra* note 94, at 79,863.

96. See FTC, *supra* note 94, at 79,863.

97. See FCC AOL/TW Order, *supra* note 94, at 6596-600.

98. See FTC, *supra* note 94, at 79,862 ("Currently, AOL's principal means of providing broadband access to its customers is through DSL AOL's merger with Time Warner will reduce its incentives to promote and market broadband access through DSL in Time Warner cable areas, adversely affecting DSL rollout in those areas and nationally. . . ."); FCC AOL/TW Order, *supra* note 94, at 6596-600.

99. Specifically, the orders respectively required the development of technical interconnection standards and jacks for CPE, the development of standard network demarcation devices, and the interconnection of local and long-distance companies' out-of-band signaling networks.

100. In *Jefferson Parish*, the Supreme Court offered what it thought would be a straightforward rule for determining when two goods or services were in separate markets. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984). As has been frequently noted, the difficulties surrounding the proof of separate markets

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pounded where a product (such as the telephone network) had always been provided on an integrated basis. A regulatory solution avoids this problem. Moreover, although the FCC must of course build a record before it adopts rules under the Communications Act, it is not constrained to establish the elements of an antitrust claim. Most importantly in this regard, the FCC has wide authority to rely upon its industry expertise to make a “predictive judgment” of the necessity for regulation to combat a particular, emerging problem.¹⁰¹

III. THE THREAT 3G POSES TO COMPETITION IN MOBILE TELEPHONY

A. *Nature of Current Wireless Market*

One of the more remarkably competitive telecommunications markets today is the market for mobile telephony. The FCC’s most recently completed report on competition in the market notes that the customary metrics of “downward price trends, [high] churn, and continued expansion of mobile networks into new and existing markets demonstrate a high level of competition for mobile telephony customers.”¹⁰² In general, such competition is among facilities-based providers of mobile services, with over 75 percent of the U.S. population “liv[ing] in areas with five or more mobile telephone operators competing to offer service.”¹⁰³ In fact, because of the competitive nature of the market, price regulation has been forbidden.¹⁰⁴

The wireless market is also a very dynamic market. Recent innovations include the introduction of two way paging technol-

which existed before *Jefferson Parish* continued as well afterwards. See, e.g., Carolyn L. Harris, *The Single Product Issue in Recent Tying Litigation*, 1980 ARIZ. ST. L.J. 871, 879-84 (describing five different tests used by courts before *Jefferson Parish*); Daniel E. Lazaroff, *Reflections on Eastman Kodak v. Image Technical Servs., Inc.: Continued Confusion Regarding Tying Arrangements and Antitrust Jurisprudence*, 69 WASH. L. REV. 101 (1994); see also *United States v. Microsoft Corp.*, 253 F.3d 34, 89 (D.C. Cir. 2001) (suggesting that in technology markets, the *Jefferson Parish* test “may not give newly integrated products a fair shake.”).

101. See, e.g., *Aeronautical Radio, Inc. v. FCC*, 928 F.2d 428, 443-45 (D.C. Cir. 1991); *Nat’l Ass’n of Broadcasters v. FCC*, 740 F.2d 1190, 1209-14 (D.C. Cir. 1984).

102. Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Sixth Report*, 16 F.C.C.R. 13350, 13370 (2001) [hereinafter *Annual Report on Commercial Mobile Competition*].

103. *Id.* at 13355; see also *id.* (“[T]o date, 259 million people, or almost 91 percent of the total U.S. population, have three or more different operators (cellular, PCS, and/or digital SMR) offering mobile telephone service in the counties in which they live.”)

104. See Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, *Second Report and Order*, 9 F.C.C.R. 1411, 1463-93 (1994).

ogy that has morphed into wireless e-mail services, wireless data services for laptop computers, and the continued integration of smaller computing platforms (such as PDAs) into wireless handsets. Many expect that the next development in the mobile services market will be the deployment of so-called third-generation mobile services (3G).

B. *The Nature of 3G Wireless*

Although details differ to some degree, many industry participants and commentators share a common vision of the next generation of mobile wireless services. Mobile services will no longer be restricted to voice communications and low-rate data transmissions. Rather, new high-speed platforms will provide access to a wide-variety of services, such as location-based reference and shopping services, data intensive graphical services, real-time video and other multi-media services. Current deployments of DoCoMo's i-Mode in Japan and some of the better-developed WAP applications provide a hint of the high-speed digital wireless future.

The Department of Commerce has termed the deployment of 3G "[o]ne of the most significant high-tech issues facing the U.S." and has aggressively sought to allocate more spectrum to 3G and remove regulatory hurdles to its deployment.¹⁰⁵ Although many remain skeptical about the prospects for near-term deployment and operational success of 3G wireless,¹⁰⁶ most in the industry remain optimistic that these services will be profitably deployed within the next 5-7 years.¹⁰⁷ In fact, U.S. carriers continue to circulate reports that they are deploying 3G infrastructure and technology within the next year.¹⁰⁸

105. See, e.g., NTIA, "Wireless" Internet: What the 3G Challenge Means for U.S. Competitiveness, at <http://www.ntia.doc.gov/ntiahome/threeeg/3gintro.htm> (Oct. 15, 2001).

106. E.g., Tim Kendall, *Investing in Wireless: Are You Nuts?*, CNET NEWS.COM, at <http://news.cnet.com/2010-1075-281602.html> (Nov. 14, 2001); Brett Woodard, *Can 3G Survive Wall Street?*, WIRELESS REVIEW, June 15, 2001, at 16; Julie Creswell, *Telecom's Game of Risk*, FORTUNE, Apr. 30, 2001, at 24.

107. Mark Fowlie, *The Hard Reality Behind 3G Services*, CNET NEWS.COM, at <http://news.cnet.com/2010-1078-281507.html> (July 9, 2001); Allnet, *Study: 3G is "Only Way,"* at http://www.allnetdevices.com/icom/wireless/news/2001/07/23/study_3g.html (July 23, 2001); *Annual Report on Commercial Mobile Competition*, *supra* note 102, at 13397-98.

108. See, e.g., Ben Charny & Tiffany Kary, *Sprint: Calls for 3G This Summer*, ZDNET NEWS, at <http://zdnet.com/2102-1105-807166.html> (Jan. 10, 2002); David Haskin, *Cingular Starts 3G Migration*, INTERNETNEWS.COM, at http://www.internetnews.com/wireless/print/0,,10692_912921,00.html (Oct. 30, 2001); George A. Chidi, *Verizon To Start 3G Rollout This Year*, CNN.COM, at <http://www.cnn.com/2001/TECH/ptech/08/03/verizon.3g.idg/> (Aug. 3, 2001).

Third generation wireless will be a substantially different “information platform” from the current cellular and PCS service, in that it is expected to provide the basis for services linked particularly to the wireless platform. Although some rudimentary data services are being offered by existing digital wireless systems,¹⁰⁹ currently the overwhelmingly dominant application is common voice service.¹¹⁰ As such, the Communications Act’s requirements of interconnection apply, requiring all carriers to integrate into the public switched telephone network.¹¹¹ In turn, the interconnection requirement ensures that no cellular carrier can capture the market on the basis of horizontal network effects; all cellular customers can reach one another (and landline telephones) no matter which carrier provides their particular service.¹¹² By contrast, the expectation is that 3G platforms will offer a much greater variety of services.¹¹³ To some extent, the uncertainty over 3G results from a lack of consensus as to what 3G’s “killer application” really will turn out to be. As one reporter recently put it: “Billions have already been sunk into 3G licenses, millions more into the raw business of making the standards work, yet a compelling business case has yet to be made.”¹¹⁴ Most agree, however, that the demand for the service will depend both on the development of such a killer app and on the development of a wide variety of services to be provided over the 3G infrastructure. “Compelling applications”¹¹⁵ and a “wider cross-section of services”¹¹⁶ are “a must.”¹¹⁷

109. See *Annual Report on Commercial Mobile Competition*, *supra* note 102, at 13402-20. R

110. *Id.* at 13352-56.

111. See 47 U.S.C. §§ 251(a), 332 (1994 & Supp. V 1999).

112. See generally James B. Speta, *Handicapping the Race of the Last Mile?: A Critique of Open Access Rules for Broadband Platforms*, 17 *YALE J. ON REG.* 39, 81-82 (2000) (discussing legal interconnection requirements as a means to eliminate prospects of closed-network competition).

113. NTIA, *supra* note 105. R

114. John Dickinson, *3G’s Killer App: A Great Way To Show and Tell*, ZDNET NEWS, at <http://zdnet.com/2100-1107-531198.html> (Dec. 5, 2001); see also Global Telecoms Business, Dec. 2000, at 41, 42 (“The problem is that 3G service providers are sailing into uncharted waters Even the large operators—who have been involved in communications for more than a century—have yet to make any firm commitment to which 3G services they think will be the ‘killer apps.’”)

115. Craig Eisler, *Build It Right and They Will Come*, CNET NEWS.COM, at <http://news.cnet.com/2010-1078-281552.html> (Sept. 10, 2001).

116. Alan Hadden, *Great Expectations for 3G*, TELECOMMUNICATIONS MAGAZINE, July 2001, at 47, available at http://www.gsacom.com/downloads/great_expectations_for_3g.pdf (last visited June 23, 2002).

117. Eisler, *supra* note 115. R

C. *The Threat 3G Poses*

This developing 3G model presents at least a potential for a tippy market, where a first-mover may capture returns from network size, resulting in a significant barrier to entry and competition. This is a story consistent with even the first generation of anti-monopoly-leveraging theory, which, as noted above, seems to control the legal doctrine. In other words, the success of the 3G infrastructure will depend upon the number and variety of attractive applications that are available on the platform creates exactly the same opportunity for anticompetitive exclusion that was present in *Microsoft*, the cable/DBS battles, and the AOL/Time Warner merger. Under the imagined scenario, the demand relationship between the applications and the 3G carrier's underlying service acts just like: (1) the need for a stable of compatible applications that gave rise to a barrier to entry protecting Microsoft's monopoly position in operating systems,¹¹⁸ (2) the need for a variety of compelling programs meant that cable exclusivity with programmers could have excluded DBS competition,¹¹⁹ and (3) the need for broadband content (or other services) created the need for a requirement that AOL provide its services to DSL companies (lest DSL competition with cable fold).¹²⁰ This is a network effect, because its strength derives from the number of people subscribing to the network, but it is different from general telecommunications network effects because of the feedback mechanism through the applications/software market.

Thus, a first-to-market 3G infrastructure supplier may have the incentive to demand exclusivity arrangements with the content and application providers, in order to stymie the development of other 3G competitors. As one business commentator noted in considering 3G business models: "[E]xclusive third-party content partnerships will be highly sought after by operators because they will make all the difference between them retaining and attracting new subscribers over their competitors."¹²¹ In fact, there is some evidence that DoCoMo's wildly successful i-Mode service was able to consolidate its dominance over other Japanese cell phone providers precisely because it had a head-start in service and because it had developed a wide-vari-

118. See *United States v. Microsoft Corp.*, 253 F.3d 34, 55-56 (D.C. Cir. 2001).

119. See *supra* notes 87-92 and accompanying text.

120. See *supra* notes 96-98 and accompanying text.

121. Matthew Secker, *It's A Whole New Ball Game*, TELECOMMUNICATIONS MAGAZINE (international edition), Sept. 2001, at 30, 32.

ety of exclusive content partnerships.¹²² Moreover, i-Mode appears to have maintained its overwhelming market lead for a time, despite the technological superiority of several subsequent entries.¹²³

If one of the existing cellular companies were to be the first to deploy 3G technology successfully in the United States and to couple that with exclusive arrangements with content suppliers, then “there’ll be no prizes for being third or fourth to market.”¹²⁴ Instead, later market entry will be blocked by the entry barrier created by the link between the first-mover and that first-mover’s content advantage. As Takeshi Natsuno, i-Mode project leader for NTT DoCoMo stated: “‘Without content providers, there are no subscribers, and without subscribers, there are no content providers.’ . . . Reaching subscriber critical mass is hard, ‘but once you do, you can just sit back and collect the revenue.’”¹²⁵

Third generation wireless presents a difficult and potentially more troubling scenario than many of the examples reviewed in Part II. In many of those examples, prior to the regulatory rule, there was simply no competition in the related market, because the network had initially developed as an organic whole and only later did it become clear that pieces of it could be supplied on a competitive basis. However, in the wireless market there is vigorous competition which could be displaced through the evolution to next-generation services. The 3G platform would likely provide new services, as well as displace the existing voice-only service providers, just as cellular and other new wireless services have substantially displaced earlier paging and dispatch services.¹²⁶

There is one prior analogy that fits the unique nature of the developing 3G market, the Kingsbury commitment. AT&T’s

122. See, e.g., Andrea Hoffman & Zev Blut, *I-Mode 101: A Lesson in Success*, *Wireless Bus. & Tech.*, Nov./Dec. 2001, at 62, 63 (“Having had an early mover advantage, the real key factors for the success of i-Mode are based on the fact that NTT DoCoMo managed not only to control the network, but also influence the handset development and select the handset makers, select and create official i-Mode content, and choose content providers.”); *Japan Seeks To Open Mobile Internet Networks*, Jiji Press Ticker, April 12, 2001 (explaining that i-Mode content is only available to i-Mode subscribers) (available in Lexis/News database).

123. See Andrea Hoffman, *The Other I-Modes*, JAPAN INC., June 2001, at 15 (discussing higher data rates and programmability offered by KDDI).

124. Global Telecoms Business, *supra* note 114, at 43.

125. Nikki Schwartz, *Success, I-Mode Style*, *WIRELESS REVIEW*, April 15, 2001, at 8 (quoting Natsuno).

126. See *Annual Report on Commercial Mobile Competition*, *supra* note 102, at 13354-13355.

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power over unaffiliated local companies arose because of the development of a new product, high quality long-distance services.¹²⁷ In other words, telephony over the Bell System offered two products, not just one, and the exclusive availability of high-quality long-distance put the unaffiliated local companies at a serious competitive disadvantage. The Kingsbury commitment addressed this monopoly maintenance concern in an antitrust consent decree (which itself created a quasi-regulatory solution); the next section asks what remedy (if any) should be created if a 3G monopoly maintenance scenario develops.

IV. SHOULD THE 3G “PROBLEM” BE SOLVED AND BY WHAT MEANS?

If there is a possibility that the first carrier to deploy a true 3G system will bond the premier content providers to it in order to eliminate competition from other wireless carriers, then the next question is what, if anything, should be done to prevent this threat to the competitive market. This Section sets out some of the considerations that are necessary to answering this question, in particular: (1) whether such a regulatory rule imposes unacceptable innovation or other regulatory costs; (2) when the regulatory rule ought to be promulgated; (3) whether the regulatory rule ought to forbid all exclusive contracting arrangements, or something less; (4) whether complete structural separation is required, or whether a nondiscrimination obligation is sufficient; and (5) whether the rule should be imposed through agency regulation or antitrust enforcement (or a combination of both). This section concludes that long-term exclusive contracts between content providers and a first-mover 3G carrier should be forbidden, if they develop. The competitive concerns should be met through careful merger review in early stages of the market, supplemented with industry-specific regulatory rules if necessary as the market develops, and backstopped by ex post antitrust enforcement remedies.

A. *Risks of Regulation*

The principal cost of regulation is the possibility that a rule forbidding exclusive contracts between 3G carriers and applications providers would decrease innovation in 3G services. Such a result could come about in a number of ways. First, in order to create the necessary initial subscriber base, a 3G carrier might need to engage in penetration pricing. As a result, it may need to

127. See *supra* notes 57-60 and accompanying text.

recoup some of those foregone profits (i.e., profits foregone on the pricing of the platform) through control over the services provided on the platform.¹²⁸ Preventing the necessary contractual control would prevent the ability to use penetration pricing, restricting the ability to obtain the necessary subscriber base to support further innovation. Second, a rule against exclusive contracts between applications providers and platform providers may eliminate an important source of financing for the development of 3G services. Such contracts are a means of sharing the risk of developing new products such as 3G services, and they can also be an important financing device.¹²⁹ Moreover, financing of 3G innovation by the 3G carriers themselves, because they are the most familiar with the technology, may be available when other external financing is not.¹³⁰ Third, a rule restricting exclusive contracts with 3G content providers could substantially reduce product differentiation between 3G suppliers, forcing competition to focus on price as opposed to features. Although such competition might lead to overall lower consumer prices sooner, it might also reduce incentives for the development of unique services because the rents could not be kept exclusive to a single platform.

B. Meeting the Challenges

These concerns can be met, to some degree, by a well-designed rule. In particular, historical precedents suggest that a leading option would be to forbid long-term exclusive contracting while permitting short-term exclusive contracts. Such a balance may preserve many of the incentives for innovation, by ensuring that exclusive contracts could be used for financing, and by ensuring that carriers could earn rewards from new and innovative services, for at least a period of time. In this latter regard, because high-value customers tend to be the early adopters for

128. Cf. Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 102 (1994) (effect of rents lost from penetration pricing can be mitigated “if the network sponsor captures some of the benefits derived from a larger network. This can occur if the hardware supplier has a stake in the supply of software as well as hardware, either through vertical integration, a joint venture, or contract.”).

129. See generally Henry N. Butler & Barry D. Bensinger, *Vertical Restraints of Trade as Contractual Integration: A Synthesis of Relational Contracting Theory, Transaction Cost Economics, and Organization Theory*, 32 EMORY L.J. 1009, 1037 (1983).

130. Cf. Peter H. Huang & Michael S. Knoll, *Corporate Finance, Corporate Law & Finance Theory*, 74 S. CAL. L. REV. 175, 184 (2000).

most services,¹³¹ carriers could be expected to earn some significant rents during a short-term exclusivity arrangement.

Moreover, a rule against long-term exclusive contracting should not be imposed until it becomes clear that long-term contracts are, in fact, the prevailing market arrangement between a 3G first-mover and its content suppliers. Many content providers, especially established content or service providers that are simply developing new 3G wireless versions of existing services, will resist exclusive contracting, because such contracts would reduce their revenues. At least some, and probably most, content and application providers will prefer to sell their content or applications over many outlets (especially competing outlets which are driving down the cost of the underlying service). Some business analysts have posited just this, that content providers will resist the 3G carriers' expected efforts to make exclusive arrangements.¹³² To some extent, the likelihood of long-term exclusive relationships being negotiated will depend upon the expected head-start of the first-mover. A content or applications provider will be more likely to resist a long-term exclusive arrangement if the second and third competitive carriers are likely to enter quickly. By way of historical contrast, at the time cable operators entered into exclusive agreements with cable programmers, DBS simply was not yet a viable service.¹³³

These concerns also suggest that there ought not be a rule of complete structural separation. For example, the 1992 Cable Act opted for a nondiscrimination requirement, requiring cable programmers that were affiliated with cable service providers to sell their products on nondiscriminatory terms to other multi-channel video suppliers, but not requiring the cable service providers to divest their programming holdings.¹³⁴

Intellectual property protections will also provide some assurance that innovation incentives will be maintained. If the 3G carrier is able to offer new and compelling services because of innovation in the 3G platform itself, instead of merely through an association with a content or services provider, then the 3G carrier should be able to protect that innovation by patent. (Of

131. See Larry Ribstein & Bruce Kobayashi, *Choice of Form and Network Externalities*, 43 WM. & MARY L. REV. 79, 110 (2001). Although early adopters probably have higher intrinsic value for the product, it may not always be possible to extract higher prices from early adopters—in part because early adopters do not garner network benefits to the same extent as later adopters. Cf. Katz & Shaprio, *supra* note 128, at 104.

132. See *supra* note 122.

133. See *supra* notes 87-92 and accompanying text.

134. See *supra* notes 87-92 and accompanying text.

course, it is worth noting that a patent owner might have an incentive to license its patents to its horizontal competitors, in order to assure the adoption of a common standard¹³⁵ or to assure complement suppliers or consumers of fair treatment.¹³⁶)

C. Which Institution?

The last question that arises is the appropriate legal institutions for considering and promulgating (if necessary) such a rule to promote a competitive 3G market. On the one hand, a regulatory solution has the attraction that it need not depend upon proof of market power, a proposition that, as the *Microsoft* litigation showed, may be difficult to establish in an emerging market. Antitrust law and, even more so, antitrust enforcers have been very wary of claims based on the protection of “potential” competitors. Although explicitly endorsed by the 1984 Vertical Merger guidelines,¹³⁷ such arguments have rarely been litigated and endorsed by courts. Most of the examples discussed in Part II were instances in which agency regulators acted to create new competition in a market. On the other hand, one of the very attractions of antitrust law is that no enforcement will take place in the absence of proof of market power, which many argue ensures the appropriate balance between the (high) costs of government regulation and the ability of the market generally to break down most monopolies.¹³⁸

The appropriate balance is probably found in three steps, the last of which is antitrust, the second of which is regulatory, and the first of which is merger review (a mix of both antitrust and agency regulation). The first line of defense in an emerging market is the antitrust authorities’ powers under the Hart-Scott-Rodino Act (HSR)¹³⁹ and the FCC’s parallel authority given by sections 214 and 310 of the Communications Act.¹⁴⁰ This author-

135. See, e.g., CARL SHAPIRO & HAL R. VARIAN, INFORMATION RULES 248-53 (1999).

136. See, e.g., Besen & Farrell, *Choosing How To Compete: Strategies and Tactics in Standardization*, 8 J. ECON. PERSP. 117, 122-23 (1994); Katz & Shapiro, *supra* note 128, at 103; Joseph Farrell & Nancy Gallini, *Second-Sourcing as a Commitment: Monopoly Incentives To Attract Competition*, 103 Q.J. ECON. 673, 675 & n.4 (1988).

137. U.S. Dept. of Justice Merger Guidelines, §§ 4.111, 4.112 (June 14, 1984).

138. E.g., Frank Easterbrook, *The Limits of Antitrust*, 63 TEXAS L. REV. 1, 19-23 (1984).

139. See 15 U.S.C. § 18(a) (1994).

140. See 47 U.S.C. §§ 214, 310(d) (1994 & Supp. V 1999). Like others, I am concerned that the FCC has been exceeding its statutory authority by using its authority over the transfer of radio licenses to review mergers—such as the recent cable mega-mergers—that otherwise would not be within its jurisdiction. I have argued elsewhere, however, that some more traditional regulatory tools, especially the com-

ity would come to bear in instances in which the 3G carrier attempted to achieve exclusivity with a content or service provider by acquiring it. The parallel is the AOL/Time Warner merger, which as discussed here was a merger between an infrastructure provider and a content/services provider. Merger review authority could not police all vertically exclusive arrangements in an emerging market, for many would fall outside of the scope of the HSR process or the FCC's current merger review authority. Furthermore, to the extent some vertical exclusive arrangements fell within the HSR process, they might be difficult to reject on a potential competition theory.¹⁴¹

The second line of defense would be a pure regulatory solution in which Congress or the FCC promulgated rules regulating exclusive arrangements, in a similar manner to the 1992 Cable Act. Such a rule could reach content and applications developed by the carriers themselves, as well as contract or venture arrangements between 3G carriers and other companies. In considering such a rule, the extent of competition among 3G carriers will be important. If there are, at most, a few potential competitors, then a non-exclusivity rule may make more sense, in order to prevent a single carrier from dominating the market.

Of course, one response to a dominant, closed network is for the lagging competitors to jointly agree on an open-standards approach to maximize an alternative market, and they might jointly overtake the first-mover. This apparently was a strategy agreed upon by the Japanese wireless companies trying to compete with DoCoMo's i-Mode, although there was not enough time to determine whether it would be successful before the Japanese Ministry of Public Management concluded that DoCoMo should open i-Mode to other carriers.¹⁴² It is also the strategy attempted by firms trying to catch up with AOL's lead in the instant messaging platform, but in that market, it does not yet seem to be working. By contrast to a concentrated market, if there are a large number of interconnected, competing platforms, then any concern over residual product diversity should be minimal.

Finally, antitrust law must backstop this entire process, ensuring that no dominant company seeks to maintain its monopoly against the development of new platforms. As Howard

mon carrier interconnection requirement, ought to be expanded to cover Internet carriers. See James B. Speta, *A Common Carrier Approach to Internet Interconnection*, 54 FED. COMM. L.J. 225 (2002).

141. See Hoffman, *supra* note 123; Jiji Press Ticker, *supra* note 122.

142. See Jiji Press Ticker, *supra* note 122.

Shelanski and Greg Sidak have recently written, antitrust law must be sensitive to the lessons of Shumpeterian competition theory—which include the observation that competition for the market does result in periods in which the market is dominated by a company that prices its goods above marginal cost.¹⁴³ In other words, in those markets where competition will likely occur serially as opposed to simultaneously, each new winner of the market will charge prices above marginal cost (i.e., above those that would prevail in a simultaneously competitive market). Nevertheless, antitrust law provides an appropriate means by which to monitor these markets, to ensure that monopolies are not maintained illicitly. These remedies are *ex post* of course, and they will therefore perhaps result in a period of anticompetitive behavior. But, as the AT&T Consent Decree shows, antitrust may be needed to police the efficacy of regulatory solutions themselves.

CONCLUSION

The foregoing constructs a distinctly legal case for industry-specific regulation playing a role in emerging information platform markets. It is not, and does not claim to be, an economist's case, whereby the applicability of competing models is resolved through empirics. Of course, with emerging markets (and too often with established markets as well) hard data is unavailable or ambiguous. The law, which has evolved to reflect some economics, has a role in these situations by providing default rules. This is a role that it has successfully played at several important points in the development of current information networks. The FCC has the statutory authority to act on its predictive judgment, albeit tying that judgment to evidence, precedents, and economic theory. Antitrust law, in the form of merger review, can perhaps provide the strongest first-stage legal process in analyzing the competitive shape of an emerging market, and antitrust enforcement is a necessary remedy to entrenched anticompetitive forces. But industry-specific regulation, when conducted with sensitivity to its costs, can have a useful intermediate role to play in maintaining competition as new information platforms emerge.

143. See Shelanski & Sidak, *supra* note 52, at 12.

BARGAINS IN THE INFORMATION MARKETPLACE: THE USE OF GOVERNMENT SUBSIDIES TO REGULATE NEW MEDIA

ELLEN P. GOODMAN*

INTRODUCTION

Several years ago, the D.C. Circuit upheld against a First Amendment challenge a law that required direct broadcast satellite (DBS) providers to set aside a portion of their capacity for noncommercial educational programming.¹ The Court based its decision on an analogy between DBS—then a new information platform—and broadcasting, the regulation of which had long received reduced First Amendment scrutiny. In an opinion dissenting from the denial of a rehearing *en banc*, Judge Williams (writing for five judges) offered an intriguing insight.² Williams wrote that if the law were constitutional, it would be so not because the government had greater leeway to regulate satellite broadcasting than newspaper publishing, but only as a “condition legitimately attached to a government grant.” Under this view, DBS licenses would be akin to government subsidies like cash grants or tax exemptions offered to encourage favored activities. As such, the government might condition its subsidy on the fulfillment of certain public interest obligations without contravening the First Amendment.

This example suggests that the analogies that judges and policymakers use when confronted by new technologies may profoundly shape the emerging law of information platforms. Choosing the right analogy is important, of course, for assigning new platforms to established regulatory categories and thereby determining how the government *should* exercise its power. It

* Associate Professor, Rutgers University School of Law—Camden. I received helpful comments from Stacey Dogan, Frank Goodman, Mark Nadel and Phil Weiser. I am especially grateful for the research assistance of my former colleagues David Fagan and Brian Smith, and for the support of my mentor, Jonathan Blake, at Covington & Burling in Washington, D.C.

1. *Time Warner Entm't Co. v. FCC*, 93 F.3d 957 (D.C. Cir. 1996).

2. *Time Warner Entm't Co. v. FCC*, 105 F.3d 723, 724-25 (D.C. Cir. 1997) (Williams, J., dissenting from denial of rehearing *en banc*).

makes all the difference, for example, if we view cable as a common carrier of telecommunications services or as a broadcaster. The selection of analogies is equally important for understanding how the government *may* exercise its power over new technologies, consistent with constitutional constraints. The notion that a spectrum license, or even, as this article suggests, a copyright license, might function as a government subsidy of mass electronic communications could have a significant impact on the government's information technology policy.

In likening government facilitation of mass communications to subsidies for other kinds of speech, it is important to arrive at a subsidized speech doctrine that reflects the array of First Amendment values at stake in the regulation of information platforms. It used to be that free speech interests were deemed not particularly relevant or not especially powerful in many areas of communications regulation. Phone companies, for example, were not considered speakers at all. Broadcasters, although speakers, did not have the same First Amendment status as newspaper journalists because the broadcast medium (electromagnetic spectrum) was considered a scarce resource.³ The emergence of new communications technologies and the convergence of existing media over the past decade have dramatically increased the salience of First Amendment concerns in communications regulation. As a result, the government is finding it increasingly difficult to achieve traditional regulatory policy objectives—such as promoting competition and diversity in the electronic media—in the face of more stringent First Amendment review.⁴

In response to these developments, the government will likely devise new regulatory approaches that steer clear of First Amendment restrictions. This article examines one possible approach: the government's use of speech benefits rather than regulations to promote desired activities in the media marketplace.

3. For more than fifty years, the government has regulated different platforms of media by relying on facts about the nature of the media and long-established doctrinal distinctions between carriers and content-providers. For example, because broadcast frequencies are scarce, the government can license them and regulate broadcasting in a way the courts would not permit in the print context. See *Red Lion Broad. Co. v. FCC*, 395 U.S. 367 (1969); *Nat'l Broad. Co. v. United States*, 319 U.S. 190, 226 (1943) ("Unlike other modes of expression, radio inherently is not available to all. That is its unique characteristic, and that is why, unlike other modes of expression, it is subject to government regulation."). Because common carriers do not control their own content, they do not have speech interests that stand in the way of regulation. See *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979); see also *United States v. W. Elec. Co.*, 673 F. Supp. 525, 586 n.273 (D.D.C. 1987).

4. See *Government in a Bind*, *infra* Part I.C.

Specifically, in the 1999 Satellite Home Viewer Improvement Act (SHVIA),⁵ Congress fashioned a copyright benefit—a compulsory copyright license that allows DBS operators to retransmit local broadcast stations without charge—in order to induce certain behavior—the carriage of local broadcast stations that a DBS operator might not otherwise provide.⁶

The reason an incentive-based regulatory strategy may be fundamental to the future of communications regulation is that radically different presumptions attach to speech subsidies under current First Amendment doctrine. Speech *regulations*, even if they are content neutral, are presumptively invalid under the First Amendment review that has emerged in the last thirty years.⁷ By contrast, burdens on speech that are part of a discretionary speech *benefit* may be treated as presumptively valid ex-

5. See Pub. L. No. 106-113, 113 Stat. 1501, 1501A-531 (1999). For a good discussion of SHVIA, see Andrew D. Cotlar, *A Subsidy by Any Other Name: First Amendment Implications of the Satellite Home Viewer Improvement Act of 1999*, 53 FED. COMM. L.J. 379 (2001) (arguing that SHVIA is constitutional under intermediate or lesser First Amendment scrutiny).

6. In comparison, Congress in the cable context had simply mandated local broadcast station carriage. 47 U.S.C. § 534 (2000). Cable enjoys a compulsory copyright license to carry local broadcast signals, 17 U.S.C. § 111(c)(3) (2000), but the must-carry rules are not contingent on exploitation of the compulsory license. See also *United Video, Inc. v. FCC*, 890 F.2d 1173, 1177 (D.C. Cir. 1989) (reviewing history of regulation of cable industry).

7. Courts have treated DBS differently for purposes of First Amendment review. Compare *Time Warner Entm't Co. v. FCC*, 93 F.3d 957 (D.C. Cir. 1996) (holding that satellite technology should be analyzed under the same relaxed standard of scrutiny applied to the broadcast medium), with *Satellite Broad. & Communications Ass'n. v. FCC*, 275 F.3d 337 (4th Cir. 2001), *cert. denied*, 70 U.S.L.W. 3774 (U.S. June 17, 2002) (NO. 01-1332) (applying intermediate scrutiny to review of SHVIA). In the case of cable, intermediate level scrutiny applies to content neutral regulations. See *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 640-41 (1994) ("*Turner I*"). Broadcasting is entitled only to relaxed scrutiny. See *Red Lion*, 395 U.S. at 396-400. Satellite broadcasting relies on scarce spectrum, like terrestrial broadcasting, but is a subscription service that offers an abundance of channels, like cable. There is some question as to whether it even matters how DBS is characterized for appellate review purposes. Specifically, some critics argue that intermediate scrutiny, as a general matter, is unduly deferential to the government and therefore indistinct from relaxed scrutiny. See, e.g., Geoffrey R. Stone, *Content-Neutral Restrictions*, 54 U. CHI. L. REV. 46 (1987). *Turner I*, however, suggests that, at least where Congress acts to fend off speculative harms in the communications industry (as it will almost always do where new technology is at issue), intermediate scrutiny will be applied with teeth. See *Turner I*, 512 U.S. at 664-65 (noting that when Congress acts to burden speech through must-carry requirements, courts must ask whether Congress has shown sufficient economic justification for action and, if so, whether the government can prove that the remedy it adopts "does not burden substantially more speech than is necessary to further the government's legitimate interests." (internal quotes omitted)).

ercises of government largesse.⁸ Whereas the review of regulations favors the regulated, the review of speech subsidies favors the government.⁹

From the standpoint of the benefited speaker, the government's manipulation of the copyright law just as clearly constitutes a "subsidy" as an outright grant of funds or a tax exemption.¹⁰ Thus, the award of a compulsory copyright license to a satellite carrier ought to be treated like a speech benefit to which strings (i.e. carriage of local broadcast signals) have been attached.¹¹ However, the government is not off the hook simply because it has rewarded rather than regulated. The First Amendment is still implicated when conditions on a benefit induce a party to engage in or abstain from speaking. Courts, em-

8. See, e.g., *Rust v. Sullivan*, 500 U.S. 173 (1991) (upholding Congress' choice to fund some activities, but not alternative activities, against a challenge to regulations prohibiting recipients of Title X family planning funds from participating in any activity advocating abortion as an unconstitutional violation of right to free speech); *Nat'l Endowment for the Arts v. Finley*, 524 U.S. 569 (1998) (upholding the requirement that the NEA consider "decency & respect" as a criterion in making arts grants).

9. After the First Amendment litigation over the requirement that cable providers carry local broadcast stations, we know that even content neutral regulations based on Congress's predictive judgments about the impact of new technology on existing market players and consumers put the government to a significant burden of proof to support its judgments. The government must base its conclusions on substantial evidence (e.g., show "that the economic health of local broadcasting is in genuine jeopardy and in need of the protections afforded by must-carry."). *Turner I*, 512 U.S. at 665. Moreover, the Court will not allow the deference ordinarily afforded to legislative findings to stand in the way of its exercise of independent judgment. *Id.* at 666. This exacting standard could require years of congressional hearings at the front end and years of litigation at the back end to satisfy a classic First Amendment review. The lapse of this much time is particularly difficult in the technology area where industry must make substantial investment to comply with a technology-forcing law (e.g., in satellite upgrades). To the extent that the government could avoid such delays by inducing, rather than requiring, compliance with public interest goals, it might well be expected to do so.

10. Other communications industry conditional speech benefits, such as the grant of spectrum rights under certain conditions or of physical rights of way, might also be viewed as government subsidies in this manner. Governmental support for public broadcasting, in the form of spectrum licenses and funds, is an obvious candidate for this kind of analysis. For example, noncommercial broadcast licenses are distributed free of charge, without being auctioned, see *Nat'l. Pub. Radio v. FCC*, 254 F.3d 226 (D.C. Cir. 2001), on condition that the licensee refrain from engaging in commercial speech in the form of advertising. Federal funds that are funneled through the Corporation for Public Broadcasting to noncommercial stations are conditioned on the same thing. See 47 U.S.C. § 399b (2000).

11. Because it upheld the constitutionality of SHVIA as if it were a regulation, the Fourth Circuit declined to address the question of whether or not SHVIA operated as a subsidy scheme. See *Satellite Broad. & Communications Ass'n*, 275 F.3d 337, 355 (4th Cir. 2001). The question thus remains open whether the grant of a compulsory copyright license or other nonmonetary benefits in the communications arena constitutes a subsidy for the purposes of First Amendment review.

ploying the murky analysis that has emerged from the subsidized speech cases of the past decade, look to whether or not the government has simply rewarded or effectively coerced certain behavior. This analysis has focused on government pressure and speaker coercion. Such a focus, when trained on subsidies that are used to achieve the traditional communications regulatory goal of more diverse speech,¹² misses an important dimension of media law—the impact of government action on the media marketplace as a whole. The subsidized speech analysis in these contexts ought to look beyond speaker coercion to consider this impact.

Part I of this article begins with a discussion of why the government might choose to “regulate” new media in the long shadow of the First Amendment by attaching conditions to the speech it promotes, rather than by risking classic First Amendment scrutiny of ordinary regulation. Part II reviews the recent subsidized speech cases, identifying a common preoccupation with the question of whether or not government speech subsidies have coerced, rather than simply encouraged, a speaker to communicate in a certain fashion. Against this doctrinal background, Part III discusses the history and structure of SHVIA and why governmentally bestowed copyright benefits may operate as speech subsidies. Part IV returns to the subsidized speech doctrine and suggests two modifications to allow courts to better assess the communicative impact of laws like SHVIA. First, a coercion theory should take into account the process of compromise between industry and government, as well as among competing industries vying for marketplace advantage, that produced the speech exchange. Second, evaluation of the First Amendment impact of the speech exchange should include a

12. Some communications regulation has been justified as promoting First Amendment values by fostering media diversity and competition among communications outlets. It “has long been a basic tenet of national communications policy that the “widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public.”” *Turner I*, 512 U.S. at 663-64 (quoting *United States v. Midwest Video Corp.*, 406 U.S. 649, 668 n.27 (1972) (plurality opinion)). The government has attempted to encourage diverse and antagonistic sources of information in the form of limits on television station ownership, cross-ownership between local cable systems and television stations, and local television stations and newspapers. *See generally* HARVEY L. ZUCKMAN ET AL., *MODERN COMMUNICATIONS Law* § 14.4 (2000). The FCC continues to devise new ways to increase media ownership in order to increase the voices of some at the expense of others. *See, e.g.*, *Creation of Low Power Radio Serv.*, 15 F.C.C.R. 2205 (2000) (codified at 47 C.F.R. Parts 11, 73 and 74 (2001)).

frank consideration of whether or not the exchange is likely to add diversity to the information market.¹³

I. THE FIRST AMENDMENT MARCH IN COMMUNICATIONS LAW

The increasing vulnerability of communications regulations to First Amendment challenges under prevailing doctrine explains why the government might choose to offer a benefit to induce, rather than impose a penalty to force, the achievement of public interest goals. Regulation of the electronic communications media by its nature implicates the freedom of speech of the regulated communicators. Nevertheless, that regulation has flourished over the past five decades notwithstanding First Amendment sensitivities because of two distinctions: between the electronic and other media and between the communications pipe and the communication itself. Both of these distinctions, which have kept First Amendment concerns at bay in many areas of communications law, are now receding as a result of technological convergence and proliferation.

Recent decisions striking down communications-related statutes,¹⁴ ordinances¹⁵ and Federal Communications Commis-

13. If it is the autonomy-maximizing and democracy-enhancing theories of the First Amendment that have guided the Court's consideration of speech subsidies, as I suggest below in Part II, I am advocating that courts also consider a third elaboration of First Amendment values also; that speech protections exist to ensure a robust speech market in which ideas compete to persuade. As the Court stated in *Red Lion*, "[i]t is the purpose of the First Amendment to preserve an uninhibited marketplace of ideas in which truth will ultimately prevail". 395 U.S. at 390. See also *Hustler Magazine v. Falwell*, 485 U.S. 46, 52, 56 (1988); *Abrams v. United States*, 250 U.S. 616, 630 (1919) (Holmes, J., dissenting); *Assoc. Press v. United States*, 326 U.S. 1, 20 (1945); Owen Fiss, *Why the State?*, 100 HARV. L. REV. 781, 787-89 (1987). But cf. C. EDWIN BAKER, HUMAN LIBERTY AND FREEDOM OF SPEECH 12-24, 37-46 (1989) (criticizing the marketplace of ideas theory); LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW 786 (2d ed. 1988) ("Especially when the wealthy have more access to the most potent media of communication than the poor, how sure can we be that 'free trade in ideas' is likely to generate the truth?"); Stanley Ingber, *The Marketplace of Ideas: A Legitimizing Myth*, 1984 DUKE L.J. 1 (arguing that marketplace of ideas theory threatens free speech by justifying free expression instrumentally rather than based on notion of individual liberty).

14. See, e.g., *United States v. Playboy Entm't Group, Inc.*, 529 U.S. 803 (2000) (invalidating provision requiring that cable operators either effectively scramble sex channels or move such programming to a later time period when children are less likely to be viewing); *Denver Area Educ. Telecomms. Consortium, Inc. v. FCC*, 518 U.S. 727 (1996) (invalidating provision requiring cable operators to block access to sexually explicit material on certain channels).

15. See, e.g., *Comcast Cablevision of Broward County, Inc. v. Broward County*, 124 F. Supp. 2d 685 (S.D. Fla. 2000) (striking down county ordinance that required cable television system that offered high-speed internet service to allow competitors equal access to system).

sion (FCC) rules¹⁶ on First Amendment grounds suggest that government regulation of the electronic media may be doomed. The increasing scope of First Amendment protection is in part simply a reflection of First Amendment jurisprudence generally¹⁷ and the receptiveness of courts to First Amendment arguments.¹⁸ In addition, technological convergence and prolifera-

16. See, e.g., *Time Warner Entm't Co. v. United States*, 240 F.3d 1126, 1131 (D.C. Cir. 2001) (striking down limits on channel capacity that cable operators can assign to affiliated programmers and limits on the number of subscribers that may be served by a cable operator); *Radio-Television News Dirs. Ass'n. v. FCC*, 184 F.3d 872 (D.C. Cir. 1999) (striking down Commission's "personal attack" and "political editorial" broadcast rules, previously upheld by *Red Lion*, under the Administrative Procedure Act because the Commission had announced intention to repeal the rules, but retained them for more than two decades in an impasse over First Amendment questions). For additional evidence of the impact of the *Time Warner* decision on the FCC's rulemaking considerations, see, e.g., *Cross-Ownership of Broadcast Stations and Newspapers, Order and Notice of Proposed Rulemaking*, 16 F.C.C.R. 17283 (2001) [hereinafter *Cross-Ownership NPRM*] (considering revision of the newspaper/broadcast cross-ownership rule and asking for comments of First Amendment considerations in light of *Time Warner*). In several other recent cases, the D.C. Circuit has rejected First Amendment attacks on structural regulation, but has remanded broadcast ownership rules to the FCC as arbitrary and capricious because the FCC has not explained to the court's satisfaction why limits on the aggregation of broadcast properties are necessary in the public interest. See *Fox TV Stations, Inc. v. FCC*, 280 F.3d 1027 (rule limiting entities to owning television stations that cover no more than 35% of the nation's television households); *Sinclair Broad. Group, Inc. v. FCC*, 284 F.3d 148 (2002) (rule limiting entities to owning no more than two television stations per market in some markets).

17. In the Supreme Court's last term, it took First Amendment protection for commercial speech to new heights by striking down the same type of law that it had upheld just four years ago. Compare *Glickman v. Wileman Bros. & Elliott, Inc.*, 521 U.S. 457 (1997) (requiring crop growers' contributions to a collective advertising fund), with *United States et al. v. United Foods, Inc.*, 533 U.S. 405 (2001) (distinguishing the earlier case as involving a more comprehensive regulatory scheme). Justice Breyer dissented in *United Foods* to the creation of "a serious obstacle to the operation of well-established, legislatively created, regulatory programs, thereby seriously hindering the operation of that democratic self-government that the Constitution seeks to create and to protect." *United Foods, Inc.*, 533 U.S. at 425 (Breyer, J. dissenting). The Court's amenability to First Amendment challenges to economic regulation in the commercial speech context was further evident in *Lorillard Tobacco Co. v. Reilly*, 533 U.S. 525 (2001) (striking down Massachusetts restrictions on tobacco advertising on the grounds that they did more than what was necessary to effect the desired goal). By contrast, First Amendment challenges to copyright laws have been singularly unavailing. See, e.g., *Eldred v. Reno*, 239 F.3d 372 (2001) (rejecting First Amendment challenge to blanket copyright term extensions), *cert. granted*, 122 S. Ct. 1062 (U.S. Feb. 19, 2002) (No. 01-618); *Universal Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001) (upholding the Digital Millennium Copyright Act and finding that although computer code was entitled to some First Amendment protection as speech, it was entitled to less protection than other forms of speech, such as novels).

18. Frederick Schauer has called the increasing frequency with which plaintiffs wield the First Amendment to avoid economic regulation as "First Amendment opportunism." He traces this back to the leading commercial speech case, *Va. Citizens Consumer Council v. Va. Bd. of Pharmacy*, 425 U.S. 748 (1976), which struck down a

tion¹⁹ are enlarging the set of communications industry activities that receive the most vigorous First Amendment protections.

A. *Technological Proliferation*

American media law has long afforded different levels of First Amendment protection to different media. As a result, the government was able to regulate speech more pervasively where there was less protection.²⁰ In particular, the government has been free to apply some kinds of content controls to the broadcast medium on the grounds that broadcast spectrum is a scarce pub-

state law prohibiting the advertising of pharmaceutical prices – a restriction that would previously have been seen as a restriction on economic liberty, not on free speech rights. See Frederick Schauer, *First Amendment Opportunism*, HARVARD KENNEDY SCHOOL OF GOVERNMENT FACULTY RESEARCH WORKING PAPER SERIES 00-011, at 5 (2000) (draft manuscript), at http://www.ksg.harvard.edu/research/working_papers/index.htm; see also Glen O. Robinson, *The New Video Competition: Dances with Regulators*, 97 COLUM. L. REV. 1016, 1023 (1997) (arguing that the *Turner II* ruling will “inspire First Amendment challenges to all manner of economic restrictions on media.”); see generally Steve Shiffrin, *The Politics of the Mass Media and the Free Speech Principle*, 69 IND. L.J. 689 (1994).

19. The term technological convergence refers to the increasing ability of one technology, like cable television, to perform functions previously associated with other technologies, like data or voice conversations. The product of technological convergence may be industrial convergence, as previously distinct sectors like the online services sector (e.g., AOL) and the cable television sector (e.g., Time Warner) merge. See, e.g., Monroe E. Price & John F. Duffy, *Technological Change and Doctrinal Persistence: Telecommunications Reform in Congress and the Court*, 97 COLUM. L. REV. 976, 981 (1997); see also Cass R. Sunstein, *Television and the Public Interest*, 88 CALIF. L. REV. 499, 528 (2000) (noting that technological convergence may be a stage, for instance, “in which television programming can be provided via the Internet, over telephone lines, or both; a television, or one kind of television, may itself be a simple computer monitor, connected to various programming sources from which viewers may make selections”). Predictions of the kind of convergence we are now seeing between computers, televisions, and telephones was forecast in the early 1980’s. See ITHIEL DE SOLA POOL, *TECHNOLOGIES OF FREEDOM* 23 (1983) (“A single physical means—be it wires, cables, or airwaves—may carry services that in the past were provided in separate ways. Conversely, a service that was provided in the past by any one medium—be it broadcasting, the press, or telephony—can now be provided in several different physical ways.”).

20. See, e.g., *Kovacs v. Cooper*, 336 U.S. 77, 97 (1949) (Jackson, J., concurring) (“The moving picture screen, the radio, the newspaper, the handbill, the sound truck and the street corner orator have differing natures, values, abuses and dangers.”); *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 386 (1969) (“differences in the characteristics of new media justify differences in the first amendment standards applied to them.”) (citation omitted); *Action for Children’s Television v. FCC*, 58 F.3d 654, 668-69 (D.C. Cir. 1995) (holding that, for First Amendment purposes, broadcast television and radio are distinct from other media because the rights of viewers and listeners, not of broadcasters, are of principal importance); see generally Glen O. Robinson, *The Electronic First Amendment: An Essay for the New Age*, 47 DUKE L.J. 899, 967 (1998) (“The Court long has been in the habit of saying that each medium of mass expression raises particular First Amendment problems.”).

lic resource.²¹ Thus, broadcasting, and to a lesser extent other electronic media,²² have been subject to a greater number of rules that regulate speech.²³

Ithiel de Sola Pool famously bemoaned the application of differing First Amendment standards to different media and the failure of the courts to honor fully the free speech rights of the

21. The Supreme Court has approved the application of content regulations to broadcasting that it would not countenance for print media. Because “the radio spectrum simply is not large enough to accommodate everybody”, *NBC v. United States*, 319 U.S. 190, 213 (1943), a broadcaster may be required “to share his frequency with others and to conduct himself as a proxy or fiduciary with obligations to present those views and voices which are representative of his community and which would otherwise, by necessity, be barred from the airwaves.” *Red Lion*, 395 U.S. at 389 (upholding the fairness doctrine, which required a broadcaster to supply free airtime for a reply to a personal attack). *Compare with* *Miami Herald Pub. Co. v. Tornillo*, 418 U.S. 241 (1974) (striking down a right of reply rule in the print newspaper context). *See also* *CBS v. Democratic Nat’l Comm.*, 412 U.S. 94, 117-18 (1973) (“A broadcast licensee has a large measure of journalistic freedom but not as large as that exercised by a newspaper.”).

22. Both cable and DBS, for example, are subject to access requirements. *See, e.g.*, 47 U.S.C. § 335(b) (2000) (DBS set aside “for noncommercial programming of an educational or informational nature”); 47 U.S.C. § 531 (2000) (cable channels set aside for public, educational, or governmental purposes); 47 U.S.C. § 532(b) (2000) (cable commercial leased access channels). Cable does not use spectrum, but the FCC has regulated it as an offshoot of broadcasting, *see* *FCC v. Midwest Video Corp.*, 440 U.S. 689, 700 (1979) (noting that previous holding “sustained the Commission’s authority to regulate cable television with a purpose affirmatively to promote goals pursued in the regulation of television broadcasting”) (discussing the Court’s holding in *United States v. Midwest Video Corp.*, 406 U.S. 649 (1972)), and has carried over into cable some of the policies that are justified by spectrum scarcity. In addition, cable regulation has been rooted in is the competition law notion that cable is a gatekeeper to content in its local markets. *See* *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 647-54 (1994) (“*Turner I*”) (discussing purpose of cable regulation). DBS does use spectrum, but looks more like cable than broadcasting because it is a subscription service. Regulation of DBS has been a hybrid of broadcasting and cable regulation. *See* DBS “Must-Carry” *infra* Part III.A.2.

23. *See, e.g.*, 47 C.F.R. § 73.671 (2001) (broadcasters must air at least 3 hours a week of defined children’s programming); 47 C.F.R. § 73.3526(e)(11) (2001) (broadcasters must maintain publicly accessible files containing lists of programs that they have aired addressing community issues); 47 C.F.R. §§ 73.1941, 73.1944 (2001) (broadcasters must provide reasonable access to federal candidates and equal opportunities to opposing candidates of all races); 18 U.S.C. § 1464 (2000) (providing civil and criminal penalties for “[w]hoever utters any obscene, indecent, or profane language by means of radio communication”); *see also* 47 C.F.R. § 73.3999 (2001) (enforcing prohibition in 18 U.S.C. § 1464); *Compare* *FCC v. Pacifica Found.*, 438 U.S. 726, 749-51 (1978) (upholding radio and television restrictions on indecent speech because of the pervasive nature of broadcasting, the ease with which children may access broadcasts, and the scarcity of broadcast spectrum), *with* *Reno v. ACLU*, 521 U.S. 844, 883-85 (1997) (overturning the Communications Decency Act of 1996, which attempted to outlaw indecent speech on the Internet), *and* *Denver Area Educ. Telecomms. Consortium, Inc. v. FCC*, 518 U.S. 727, 766 (1996) (holding that there was no evidence of a compelling need to protect children from exposure to offensive material on cable television’s leased access channels).

electronic media.²⁴ Many have echoed Pool's criticisms of mass media regulation, pointing to the proliferation of new technologies.²⁵ There is broad consensus among scholars and policymakers that the growth of communications outlets, notwithstanding the heavy consolidation among them, has extinguished the rationale for a distinction between the print and electronic media for First Amendment purposes.²⁶ It is therefore widely expected

24. POOL, *supra* note 19, at 26-27.

25. See, e.g., Thomas G. Krattenmaker & L.A. Powe Jr., *Converging First Amendment Principles for Converging Communications Media*, 104 YALE L.J. 1719, 1719, 1721-24 (1995) (arguing that distinct categories of First Amendment treatment are no longer appropriate). Professors Monroe Price and John Duffy have identified Justice Breyer's hesitancy to categorize technologies for First Amendment purposes because change outpaces the ability to categorize correctly. See Price & Duffy, *supra* note 19. Justices Thomas, Scalia, Rehnquist and Souter at least seem to share a dislike for medium-based First Amendment jurisprudence. See *Denver Area Educ. Telecomms. Consortium, Inc.*, 518 U.S. at 774-78, 812-38 (Souter, J., concurring; Thomas, J., concurring in part and dissenting in part).

26. See, e.g., THOMAS G. KRATENMAKER & LUCAS A. POWE, JR., *REGULATING BROADCAST PROGRAMMING*, 204-19 (1994); Thomas W. Hazlett, *The Rationality of U.S. Regulation of the Broadcast Spectrum*, 33 J.L. & ECON. 133, 138 (1990); Robert Corn-Revere, *Rationales and Rationalizations—Chapter 1: Red Lion and the Culture of Regulation*, 5 COMM'LAW CONCEPTUS 173, 179 (1997); see also Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354 (1999) (criticizing the assertion that broadcast frequencies are in fact scarce, much less that scarcity justifies reduced First Amendment protection, and arguing that the apparent scarcity is a function of a discretionary licensing regime). The FCC itself has asked the Court to deprive it of the ability to regulate under this theory. See *Complaint of Syracuse Peace Council, Memorandum Opinion and Order*, 2 F.C.C.R. 5043, 5057-58 (1987), *aff'd sub nom.* *Syracuse Peace Council v. FCC*, 867 F.2d 654 (D.C. Cir. 1989) (repealing the fairness doctrine); see also *Repeal or Modification of the Personal Attack and Political Editorial Rules, Order and Request to Update Record*, 15 F.C.C.R. 19973 (2000) (Powell, Comm'r, dissenting) (arguing that the "new economy" renders broadcast regulation designed to increase diversity of voices obsolete), *vacated by Radio—Television News Dirs. Ass'n v. FCC*, 229 F.3d 269 (D.C. Cir. 2000). And at least four Supreme Court Justices have opined that the scarcity rationale is dead. See *Turner Broad. Sys. v. FCC*, 520 U.S. 180, 233 (1997) ("*Turner II*") ("It is undisputed that the broadcast stations protected by must-carry are the "marginal" stations within a given market . . . the record on remand reveals that any broader threat to the broadcast system was entirely mythical."); see also *Denver Area Educ. Telecomms. Consortium, Inc.*, 518 U.S. at 813 (Thomas, J., concurring in part and dissenting in part) (noting First Amendment distinctions among the media have been "dubious from their infancy"); *Action for Children's Television v. FCC*, 58 F.3d 654, 672-75 (D.C. Cir. 1995) (Edwards, C.J., dissenting) (criticizing *Red Lion's* scarcity rationale). However, the Court of Appeals for the District of Columbia Circuit recently upheld the scarcity rationale and extended it to another context—the scarcity of orbital slots available to DBS operators. See *Time Warner Entm't Co. v. FCC*, 93 F.3d 957, 973-77 (D.C. Cir. 1996). Charles Logan provides an excellent history of the scarcity rationale and proposes an alternative public forum basis for broadcast regulation. See Charles W. Logan, Jr., *Getting Beyond Scarcity: A New Paradigm for Assessing the Constitutionality of Broadcast Regulation*, 85 CAL. L. REV. 1687 (1997). A particularly interesting criticism of the scarcity rationale is that even if there were a reason to distinguish radio spectrum from other scarce resources (like printing presses),

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that the Supreme Court will cease to distinguish between broadcast and other media regulation.²⁷

If and when this happens, much of the public interest regulation of the electronic media would disappear.²⁸ Today, notwithstanding the persistence of heterogeneous First Amendment standards for communications industries, the repeal or dilution of ownership restrictions on the number of television stations a broadcast network may own is imminent.²⁹ Restrictions on the

most forms of mass media communication, not just broadcasting, use spectrum. See Robert Corn-Revere, *New Technology and the First Amendment: Breaking the Cycle of Repression*, 17 HASTINGS COMM. & ENT. L.J. 247, 285-95 (1994). Newspapers, for example, use spectrum licenses to transmit their copy from their newsrooms to their presses.

27. The argument for harmonizing all media regulation depends on the substitutability of one medium for another. In the FCC's annual report on the status of competition in the market for the delivery of video programming, mandated by the 1992 Cable Act, Pub. L. No. 102-385, 106 Stat. 1460, 47 U.S.C. §548(g) (2000), the agency ponders whether or not the "one-to-one" audio and video webcasting media are effective substitutes for the increasingly consolidated "one-to-many" electronic media. Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, *Eighth Annual Report*, 17 F.C.C.R. 1244 (2002). Substitutability in this sense is usually viewed as a matter of penetration, rather than format or viewer experience. The same is true when the FCC assesses media diversity in considering the repeal or change of media ownership rules. After the important copyright case, *N.Y. Times Co. v. Tasini*, 533 U.S. 483 (2001) (holding that reproduction of newspaper content in electronic form is not a revision of the periodicals under copyright law 17 U.S.C. § 201(c) because the content appeared in an altered context), differences in format may be legally significant under copyright law to the extent that the user of the digital medium experiences the content differently in the new format. If this emphasis on the viewer's experience, rather than on the content, prevails in the communications area, interactive and passive (if any) electronic media might not be deemed substitutable, thereby leaving open the possibility of differential regulation.

28. The Court may never face the question since the FCC and Congress have done away with most broadcasting content controls, notwithstanding the latitude provided by the scarcity rationale to regulate broadcasting. Those controls that remain sting only rarely and mostly symbolically. Enforcement of the indecency regulations, for example, is extremely rare. See Industry Guidance on the Commission's Case Law Interpreting 18 U.S.C. § 1464 and Enforcement Policies Regarding Broadcast Indecency, *Policy Statement*, 16 F.C.C.R. 7999 (2001) (reviewing enforcement actions and process). A day spent listening to the radio or watching television will convince anyone that broadcasters are not discernibly chilled by these regulations from airing expression that is very close to the line. See Robinson, *supra* note 20; Logan, *supra* note 26.

29. An appeals court has ruled that the FCC's retention of the rule limiting network ownership of local broadcast stations to no more than the number of stations that can reach 35% of the nation's audience was arbitrary and capricious, and remanded the rule to the FCC for further justification. The court rejected, however, the networks' argument that the cap was unconstitutional. *Fox TV Stations Inc. v. FCC*, 280 F.3d 1027 (2002). The FCC has now initiated a proceeding that is likely to result in sweeping changes to broadcast ownership rules. See Third Biennial Review of Broad. Ownership Rules, *Notice of Proposed Rulemaking*, 2002 FCC LEXIS 4671 (Sept. 12, 2002).

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ability of a cable system to own television stations in its local areas have already been removed,³⁰ and permission to own both television stations and a newspaper in a local area is probably close at hand.³¹

B. Technological Convergence

The second feature of communications law that has supported speech-burdening regulation is the formerly bright line, based largely on tradition rather than function, between carriers and speakers.³² That carriers were expected to engage in nondiscriminatory carriage of expression, and not themselves to engage in expressive activities, was a bedrock principle of communications law.³³ The tradition of common carrier regulation “constrained [courts] to turn a deaf ear” to common carriers’ First Amendment challenges to regulations that restricted communication.³⁴ The convergence of technologies dissolves the once rigid

30. *Fox TV Stations Inc.*, 280 F.3d at 1027.

31. The FCC now waives the rule against TV-newspaper cross-ownership to permit mergers. See, e.g., Applications of UTV of San Francisco, Inc., et al., *Memorandum Opinion and Order*, 16 F.C.C.R. 14975 (2001) (approving the application of Fox Television Stations to acquire ten television stations held by Chris-Craft Industries and its subsidiaries); see also *Time Warner Entm’t Co. v. FCC*, 211 F.3d 1313 (D.C. Cir. 2000) (striking down limits on channel capacity that cable operators can assign to affiliated programmers and limits on the number of subscribers that may be served by a cable operator).

32. See, e.g., Angela J. Campbell, *Publish or Carriage: Approaches to Analyzing the First Amendment Rights of Telephone Companies*, 70 N.C. L. REV. 1071 (1992).

33. The definition of a common carrier has never been particularly well crafted. The Communications Act of 1934 unhelpfully relies on the body of law developed for railroads and other transporters to define a common carrier as “any person engaged as a common carrier for hire.” 47 U.S.C. § 153(10) (2000); ZUCKMAN ET AL., *supra* note 12, at 547-48 (detailing development of Communications Act of 1934); see also 47 U.S.C. § 153(49) (2000) (including, by amendment of the Telecommunications Act of 1996, telecommunications carriers as common carriers). The common law has defined a common carrier as one that “hold[s] oneself out indiscriminately to the clientele one is suited to serve”. *Nat’l Ass’n of Regulatory Util. Comm’rs v. FCC*, 525 F.2d 630, 641 (D.C. Cir. 1976). See also *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979) (distinguishing between access requirements permissibly imposed on common carriers and those imposed on cable operators who enjoy journalistic freedom).

34. *United States v. W. Elec. Co.*, 846 F.2d 1422, 1431 (D.C. Cir. 1988). See also *United States v. W. Elec. Co.*, 673 F. Supp. 525, 586 n.273 (D.D.C. 1987) (“These [telephone] companies, which have never been publishers . . . cannot bootstrap their own failure to make the showing necessary for the relief of their obligations under an antitrust decree into an infringement of their First Amendment rights.”). Ithiel de Sola Pool noted that although common carriers have not benefited from First Amendment protections:

In its own way the law of common carriage protects ordinary citizens in their right to communicate. The traditional law of a free press rests on the assumption that paper, ink, and presses are in sufficient abundance that, if government simply keeps hands off, people will be able to express themselves freely. The law of common carriage rests on the opposite assumption that, in

distinction between carriers and content producers, resulting at times in the extension of speech protection to the mere transmission of speech, which historically did not raise First Amendment sensitivities. Thus, at the same time that First Amendment protections are deepening for traditional content media, First Amendment protections are broadening to operators of communications conduits that were not traditionally associated with expressive activity.

A major milestone in the extension of free speech protections came in the mid-1990's when telephone companies succeeded in First Amendment challenges to rules that kept them out of the video business and had long been viewed as valid structural regulation of monopolies.³⁵ More recently, telephone companies have prevailed in a First Amendment challenge to another rule that attempted to prevent them from using proprietary customer information to gain competitive advantage in new services.³⁶

the absence of regulation, the carrier will have enough monopoly power to deny citizens the right to communicate.

POOL, *supra* note 19, at 106.

35. See *Chesapeake & Potomac Tel. Co. v. United States*, 42 F.3d 181 (4th Cir. 1994) (holding that the cross-ownership ban that prohibited incumbent telephone companies from providing video was unconstitutionally over-broad under the intermediate scrutiny test), *vacated and remanded for consideration of mootness*, 516 U.S. 415 (1996). The Telecommunications Act of 1996 repealed the ban on telephone company provision of video. Telecommunications Act of 1996, Pub. L. No. 104-104, § 302(b)(1), 110 Stat. 56, 124 (repealing 47 U.S.C. § 533(b)). For a discussion of common carriers' First Amendment arguments, see Susan Dente Ross, *First Amendment Trump?: The Uncertain Constitutionalization of Structural Regulation Separating Telephone and Video*, 50 FED. COMM. L.J. 281 (1998) and Robinson, *supra* note 18. Both authors are critical of the application of heightened First Amendment scrutiny to structural, line-of-business separation requirements that have long characterized telephone regulation in the U.S., both before and after the 1984 AT&T breakup. Justice Breyer has implied that the constitutionalization of telecommunications structural regulation revives *Lochner* through the First Amendment. See Respondents' Oral Argument, 1995 U.S. TRANS LEXIS 107 at *30 (Dec. 6, 1995) and *United States v. Chesapeake & Potomac Tel. Co.*, 516 U.S. 415 (1996), where Justice Breyer commented:

Is suddenly this whole big economic area going to be turned over to courts? Because we're going to retreat from giving Congress quite a lot of discretion when it tries to deal with the structure of industries, and we're going to use the First Amendment - other people in history have used other amendments to sort of go into economic regulation in great depth.

See also *United States et al. v. United Foods, Inc.*, 121 S.Ct. 2334, 2348 (2001) ("I do not believe the First Amendment seeks to limit the Government's economic regulatory choices . . . any more than does the Due Process Clause.") (Breyer, J., dissenting) (citation omitted).

36. *U.S. West, Inc. v. FCC*, 182 F.3d 1224 (10th Cir. 1999), *cert. denied*, 530 U.S. 1213 (2000) (holding that FCC rule against use of customer proprietary network information did not satisfy the test articulated in *Central Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y.*, 447 U.S. 557 (1980) for restrictions on commercial speech).

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Basic common-carrier type access regulation is also increasingly suspect under the First Amendment. A Florida district court recently held that a local franchise authority violated cable systems' free speech rights by requiring proprietary systems to open their facilities to competing online services, even though incumbent telephone companies have such interconnection duties.³⁷ The question of what kinds of access requirements the government can legitimately place on proprietary networks, such as cable modem services³⁸ or interactive television services,³⁹ will almost certainly be debated in First Amendment terms at the FCC.

On the horizon is the question of whether the FCC or Congress can adopt rules that curtail the power of electronic television program guide providers to favor the programming of jointly owned or affiliated services by requiring the display of unaffili-

37. See *Comcast Cablevision of Broward County, Inc. v. Broward County*, 124 F. Supp. 2d 685 (S.D. Fla. 2000). This decision has been criticized by Professors Mark Lemley and Larry Lessig, who argue persuasively that the mere transmission of third-party content, without the process of selection or editorial control, is not activity that should receive heightened First Amendment protection. See Mark Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925, 955 n.79 (2001); see also Harold Feld, *Whose Line is it Anyway? The First Amendment and Cables Open Access*, 8 COMM. L. CONSPECTUS 23 (2000) (criticizing idea that owners of cable lines have First Amendment right to control ISP choice over those lines). Another court, considering the same issue, avoided First Amendment issues by concluding that the access requirements would not result in the association of the carried speech with the cable company. *AT&T Corp. v. City of Portland*, 43 F. Supp. 2d 1149, 1154 (D. Or. 1999), *rev'd on other grounds* 216 F.3d 871 (9th Cir. 2000); *accord MediaOne Group, Inc. v. County of Henrico*, 257 F.3d 356 (4th Cir. 2001). Strikingly, the Florida open access decision invalidates access requirements where the cable operator is essentially acting as a passive carrier (in the case of the cable modem service) even though cable systems acting more like editors (in the case of cable video service) must provide access channels for public, governmental and other uses. See *Time Warner Entm't Co. v. FCC*, 93 F.3d 957, 973 (D.C. Cir. 1996) (rejecting facial challenge to 47 U.S.C. 531(b), which authorizes local franchising authorities to designate channels for "public, educational, or governmental use"). The cable industry's claims that it is not technically feasible to satisfy cable modem open access requirements help to explain the Florida decision, although it now appears that at least relatively open access is feasible. See *America Online, Inc. and Time Warner Inc.*, 65 Fed. Reg. 79861 (FTC, Dec. 20, 2000) (proposed consent agreement) (imposing some degree of open access on AOL Time Warner as a merger condition).

38. See *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Declaratory Judgment and Notice of Proposed Rulemaking*, 17 F.C.C.R. 4798 (2002) (concluding that cable modem service is an information service, rather than a telecommunications or cable service, and seeking comment on how much service should be regulated).

39. See *Nondiscrimination in the Distribution of Interactive Television Services Over Cable, Notice of Inquiry*, 16 F.C.C.R. 7718 (2001).

ated programming in a nondiscriminatory fashion.⁴⁰ Consideration of these access questions will include claims of reduced and forced speech. Thus, as telecommunications transport and media content converge, exacting First Amendment scrutiny could well extend to previously regulated activities such as interconnection or data transmission.

C. *Government in a Bind*

Even where speech-affecting media regulations have been upheld, the government faces high evidentiary burdens when these regulations are designed to combat a speculative harm. This was the lesson of *Turner Broadcasting System, Inc. v. FCC*, 520 U.S. 180 (1997) (Turner II), in which the Court upheld the statutory requirement that cable systems retransmit local broadcast signals. The *Turner* litigation suggests that the courts will not be particularly deferential to legislators or regulators that impose speech burdens, even content-neutral ones, in the pursuit of media diversity or other policy goals. When legislating or regulating prospectively, the government must have a well-developed factual record that can withstand the claim that new technology or marketplace developments will address the government's fear in the absence of intervention.⁴¹

With the growing prominence of First Amendment defenses to communications regulation and the difficulty in regulating prospectively, government will have two choices: to abandon communications policies that tread on expressive activities⁴² or

40. There already are such nondiscrimination rules for "open video systems"—a category of service that was designed to allow the telephone companies to provide video services. The electronic program guide nondiscrimination rules were thus adopted without First Amendment challenges as a species of common carrier regulation, even though they interfere with a carrier's promotion through the guide of its affiliated content. See 47 C.F.R. § 76.1512 (2001).

41. For an interesting proposal of the types of evidentiary burdens the government should face, see Stuart Minor Benjamin, *Proactive Legislation and the First Amendment*, 99 MICH. L. REV. 281 (2000) (arguing that there should be a presumption against legislation that is based on predictive harms where First Amendment principles are at stake).

42. As Professor Yochai Benkler has shown, most communications policies—even those that ostensibly have little to do with expressive activity such as the allocation and licensing of spectrum—directly impact speech. See Benkler, *supra* note 26. The FCC is attempting to reduce its involvement in both the regulation of spectrum, see, e.g., Service Rules for the 746-764 and 776-794 MHz Bands, *Second Report and Order*, 15 F.C.C.R. 5299 (2000) (creating "guard band manager" licensees in the 700 MHz band who will engage in the business of subdividing the spectrum they acquire at auction and leasing it to third parties), *aff'd on recon.*, 16 F.C.C.R. 21633 (2001) (granting flexibility to facilitate voluntary clearing of incumbent broadcasters in the 700 MHz band), and of equipment, see, e.g., Amendment of Part 15 of the Commission's Rules Regarding Spread Spectrum Devices, *First Report and*

to achieve those policy goals in ways that are subject to reduced First Amendment scrutiny. In this regard, it is possible that an increased sensitivity to First Amendment issues combined with general deregulatory tendencies, could end the regulatory urge. It is more likely, however, that the impulse to regulate the media, particularly to promote voices that do not fare well in the marketplace or to influence the structure of media ownership and access, will persist notwithstanding the changes in First Amendment doctrine.⁴³ Accordingly, innovative approaches to public interest regulation will be necessary, not only for government initiatives in the content area, but also for attempts to preserve competition and access in the midst of consolidation and vertical integration.⁴⁴

D. SHVIA Responds to First Amendment Trends

SHVIA, which is discussed in greater detail in Section III, is one example of the type of innovative legislation necessary to withstand scrutiny in the current First Amendment environment. With the repeal of cable rate regulation in the Telecommunications Act of 1996,⁴⁵ it became important government policy to promote multichannel video service alternatives to cable. In 1999, Congress passed SHVIA to help the burgeoning DBS industry to compete with cable by facilitating DBS operators' provision of local broadcast signals, something DBS provid-

Order, 15 F.C.C.R. 16244 (2000) (allowing frequency hopping spread spectrum technologies to operate on an unlicensed basis under Part 15 of the FCC's rules to allow for the development of innovative wireless devices).

43. Indeed, some scholars, notably Professor Cass Sunstein, support a resurgence of government involvement in the media content business through the use of incentives rather than regulation. For example, he has suggested using "points" in the auctioning of spectrum for preferred licensees and subsidizing the production of high-quality programming for public broadcasting. Cass R. Sunstein, *Emerging Media Technology and the First Amendment: The First Amendment in Cyberspace*, 104 YALE L.J. 1757 (1995); see also Cass R. Sunstein, *Television and the Public Interest*, 88 CALIF. L. REV. 499 (2000). Former FCC Chairman Reed Hundt supported Professor Sunstein's ideas. See, e.g., The Repeal or Modification of the Personal Attack and Political Editorial Rules, *Statement of Chairman Reed E. Hundt*, 1997 FCC LEXIS 4225 (Aug. 11, 1997) ("Many, such as Professor Cass Sunstein, argue that the values embodied in the First Amendment should be furthered through content-specific, through viewpoint-neutral, rules."). But cf. Abner S. Greene, *Government of the Good*, 53 VAND. L. REV. 1, 64-67 (2000) (criticizing Sunstein's arguments for expanding viewpoint diversity through government action).

44. See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, *Seventh Annual Report*, 16 F.C.C.R. 6005, 6078-80 (2001); *Cross-Ownership NPRM*, supra note 16, at ¶ 13 (discussing concentration of media outlets).

45. Pub. L. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.).

ers had not done before. SHVIA made the retransmission of local broadcast signals significantly easier and cheaper by giving DBS operators a benefit that cable had enjoyed since 1976. This was a compulsory copyright license to retransmit local broadcast signals free of charge and without burdensome copyright negotiations.

To harmonize the regulatory regimes for cable and DBS, particularly as they relate to the carriage of local broadcast signals, Congress had to find some way to ensure that DBS operators, like cable, would carry the more marginal local broadcast stations along with the most popular network affiliates. Cable carriage of all local broadcast stations, Congress found when it legislated cable “must-carry,” was necessary to further the goal of media diversity, particularly for the sizeable minority of Americans that do not subscribe to cable. Non-carriage of local broadcast stations, Congress thought, would deprive those stations of sufficient audience penetration to survive as a free, over-the-air mass medium.⁴⁶ With the growing market share of DBS, and the hope that DBS would rival cable in most markets, Congress had the same concerns about the non-carriage of local broadcast signals on DBS. But when it came to DBS, Congress did not impose must-carry rules as it had with cable. Instead, it tied the obligation to carry local broadcast signals to a DBS operator’s decision to avail itself of the compulsory copyright license in a given market. In effect, Congress offered to relieve DBS operators of otherwise applicable copyright liability for the unauthorized retransmission of local broadcast signals in any market if the DBS operators agreed to retransmit all local signals in such market.

In important respects, this exemption from ordinary copyright law is a form of federal subsidy designed to put DBS “speakers” on a competitive par with cable, while at the same time preserving the broadcast television medium for those who do not subscribe to DBS or cable. By manipulating copyright law, the federal government offered to relieve DBS operators of the arduous and expensive process of clearing copyrights from hundreds of copyright owners whose works are included in a television broadcast signal. The condition of the offer was that those operators who took advantage of this royalty-free compulsory copyright license had to use the license to retransmit all local signals in a given market.⁴⁷

46. See discussion *infra* at III.A.1.

47. See 17 U.S.C. §§ 119(a), 122 (2000). Congress has also recently conditioned its subsidy of schools’ and libraries’ telecommunications infrastructure, under the

In the next section, I will outline how the use of government subsidies, like the grant of a compulsory copyright license, provides government with a tool to shape information policy in ways it might not be able to do by regulatory force. Then, in Section III, I will return to SHVIA to assess the First Amendment impact of this novel use of a copyright entitlement.

II. THE SUBSIDIZED SPEECH DOCTRINE

The First Amendment review of regulations is characterized by a categorical rigidity that does not exist when the courts are assessing subsidies. In the regulatory context, the courts first determine how closely they will scrutinize a regulation. Judgment flows from the determination as to whether the regulation implicates the First Amendment to a high degree (because it, is content-based),⁴⁸ to a lesser degree (because it, is content-neutral),⁴⁹ or not at all (because the law addresses conduct or speech that is not constitutionally protected).⁵⁰ By contrast, where the government has offered a benefit, conditioned on the relinquishment of protected speech rights, the First Amendment analysis is fairly amorphous. The courts do not categorize speech subsidies, subjecting different conditions to different levels of scrutiny, but ask generally whether the conditions on the speech benefits unconstitutionally coerce a beneficiary to surrender protected

Schools and Libraries Discount or E-rate program, on the use of technology that filters or blocks material that is obscene, child pornography, or harmful to minors. *See* Children's Internet Prot. Act, 20 U.S.C. §§ 6301 note, 7001, 9134 (2000), 47 U.S.C. §§ 254, 609 note, 902 note (2000). A district court recently held that this statute violated the First Amendment. *See* Am. Library Assoc. v. United States, 201 F. Supp. 2d 401 (E.D.P.A. 2002), U.S. S. Ct. appeal filed, 71 USLW 3177 (Sept. 6, 2002) (No. 02-361).

48. The consideration of content as the most salient First Amendment characteristic can be traced to *Police Dep't v. Mosley*, 408 U.S. 92, 96 (1972) ("[O]ur people are guaranteed the right to express any thought, free from government censorship. The essence of this forbidden censorship is content control.") *See generally* DANIEL A. FARBER, *THE FIRST AMENDMENT* 21 (1998). Content-based speech restrictions violate the First Amendment absent a compelling government interest furthered by the restrictions and narrow tailoring. *See also* *Consol. Edison Co. v. Pub. Serv. Comm'n*, 447 U.S. 530, 537 (1980) ("The First Amendment's hostility to content-based regulation extends not only to restrictions on particular viewpoints, but also to prohibition of public discussion of an entire topic").

49. *See, e.g., Madsen v. Women's Health Ctr., Inc.*, 512 U.S. 753 (1994) (finding that injunction against activities of abortion protesters was not directed at content of speech and therefore was valid).

50. *See, e.g., Miller v. California*, 413 U.S. 15 (1973) (finding that obscenity was beyond constitutional protection); *see also* *R.A.V. v. City of St. Paul*, 505 U.S. 377, 383 (1992) (noting that cases involving defamation, obscenity, incitement to crime, and fighting words have upheld regulation because of "constitutionally proscribable content").

speech rights.⁵¹ Ostensibly, as discussed below, the determinative factor has been whether the speaker has been coerced into saying something that would not have been said, but for the subsidy program.

The delineation of when speech has been coerced in the context of a government benefit program is the “subsidized speech doctrine”—an offshoot of the confused unconstitutional conditions “doctrine.”⁵² Even as compared with other applications of unconstitutional conditions theories, the subsidized speech doctrine presents an unsatisfying resolution of the difficult question of when government can encourage what it cannot require. At the outset, there is no predicting when a court, faced with what might be considered a complaint about the terms of a government speech subsidy, will apply the subsidized speech doctrine at all, or stick with classic First Amendment doctrine.⁵³ Furthermore, when the subsidized speech doctrine is applied, it is done

51. Another way to frame the question is whether the government has more latitude to achieve as patron what it could not as sovereign. Justice Souter proposes a further distinction between government as patron and government as speaker and buyer. When government speaks (as in a no-smoking campaign) or buys (as in art for government buildings), he believes it should be permitted to decide what is said. But when government merely sponsors others to speak, it should remain neutral as to what is said. See *Nat'l Endowment for the Arts v. Finley*, 524 U.S. 569, 610-11 (1998) (Souter, J., dissenting); see also Robert C. Post, *Subsidized Speech*, 106 *YALE L.J.* 151 (1996) (one way to look at the subsidized speech cases is to distinguish “managerial domains” in which the government is implementing governmental policy to attain institutional ends and public discourse in which the government is a market participant in the open speech market). In several recent cases in other contexts, courts have made the same distinction between government as market participant and as regulator, telling the government that when it plays in the market, it is subject to the rules of the market. See, e.g., *U.S. v. Winstar Corp.*, 518 U.S. 839 (1996) (government liable for damages if U.S. reneges on earlier bargain as a result of a subsequent change in law); *Nextwave Personal Communications, Inc. v. FCC*, 254 F.3d 130 (D.C. Cir. 2001), *cert. granted*, 122 S. Ct. 1202 (2002) (government acts as a creditor, not regulator, when communications licensee defaults on installment payments due to government for spectrum auction).

52. See generally Louis Michael Seidman, *Reflections on Context and Constitution*, 73 *MINN. L. REV.* 73, 75 (1988) (noting the “wildly inconsistent results” of unconstitutional conditions cases).

53. The unconstitutional conditions doctrine is variously invoked or ignored in any given case involving conditions on a government subsidy. See Frederick Schauer, *Principles, Institutions, and the First Amendment*, 112 *HARV. L. REV.* 84, 102-04 (1998); Martin H. Redish & Daryl I. Kessler, *Government Subsidies and Free Expression*, 80 *MINN. L. REV.* 543, 549 n.19 (1996); Richard A. Epstein, *Forward: The Supreme Court 1987 Term: Unconstitutional Conditions, State Power, and the Limits of Consent*, 102 *HARV. L. REV.* 4, 10-11 (1988) (the unconstitutional conditions doctrine “roams about constitutional law like Banquo’s ghost, invoked in some cases, but not in others.”).

so without the multi-factored test that has been developed in other areas of unconstitutional conditions doctrine.⁵⁴

In fact, in the subsidized speech context, the word “doctrine” is used only for ease of reference to the decisions, which reflect sharply divergent views. At one end of the spectrum is the view that government has nearly unfettered freedom to tailor a speech-related benefit in ways that touch on protected speech rights since it has the power to deny the benefit in the first place.⁵⁵ At the other end of the spectrum is the view that government may not burden speech indirectly where direct regulation would be impermissible.⁵⁶ Between these poles lies the approach the Court has ostensibly adopted, which is that government subsidies will be upheld unless the funding scheme is “‘manipulated’ to have a ‘coercive effect’” on beneficiaries of the subsidy.⁵⁷ Of course, important issues emerge in the articulation of what it means to be manipulated or coerced.

Distinguishing between the constitutionally permissible tailoring of a governmental benefit and the impermissible application of pressure on a beneficiary to relinquish protected rights is, what one scholar has termed, the “true Okefanokee of constitu-

54. The Court has articulated four limitations on the federal government’s use of its spending power to induce behavior on the part of states that it could not compel. The exercise of the spending power must be in pursuit of the “general welfare.” *South Dakota v. Dole*, 483 U.S. 203, 207 (1987) (holding that federal statute conditioning grant of federal highway funds to states on states’ adoption of minimum drinking age does not violate Tenth Amendment). Congress must condition receipt of the federal funds “unambiguously . . . [so that the recipients may] exercise their choice knowingly, cognizant of the consequences of their participation.” *Id.* The conditions on federal grants must be related “to the federal interest in particular national projects or programs.” *Id.* Finally, Congress cannot induce states “to engage in activities that would themselves be unconstitutional.” *Id.* at 210.

55. The principle that the greater power to deny a benefit altogether includes the lesser power to deny a benefit for speech-related reasons is famously articulated by Justice Holmes: a policeman “may have a constitutional right to talk politics, but he has no constitutional right to be a policeman.” *McAuliffe v. Mayor of New Bedford*, 29 N.E. 517, 517-18 (1892). Although the Court ostensibly abandoned the greater–includes–the–lesser principle, in fact, at least Justices Rehnquist, Scalia and Thomas continue to invoke the principle to approve government conditions on speech benefits. *See FCC v. League of Women Voters of Cal.*, 468 U.S. 364, 402 (1984) (Rehnquist, J., dissenting); *Rust v. Sullivan*, 500 U.S. 173, 174 (1991); *Legal Servs. Corp. v. Velazquez*, 531 U.S. 533, 549 (2001) (Scalia, J., dissenting). In other contexts, Justice Scalia has rejected the greater–includes–the–lesser principle. *See, e.g., R.A.V. v. City of St. Paul*, 505 U.S. 377 (1992), in which Justice Scalia embraced the position that the state’s greater right to prohibit “fighting words” did not include the lesser right to prohibit fighting words that constitute hate speech.

56. *See Finley*, 524 U.S. at 610-11 (Souter, J., dissenting).

57. *Id.* at 587 (quoting *Ark. Writers’ Project, Inc. v. Ragland*, 481 U.S. 221, 237 (1987) (Scalia, J., dissenting)).

tional law.”⁵⁸ These cases have turned on such considerations as whether the government is funding its own speech (conditions allowed) or private speech (conditions invalidated), on whether the beneficiaries may avoid the restrictions with private funds (conditions allowed) or are bound by the restrictions once they accept the benefit (conditions invalidated), on whether the speech-related criterion for award of a benefit is simply one of many flexibly applied criteria (conditions allowed), on whether the subsidy supports expression in a public forum (conditions not allowed), and on whether the subsidy is used to distort an institution’s traditional function (conditions not allowed).

Considerable criticism has been leveled at the subsidized speech cases, most often on the grounds that the unconstitutional conditions doctrine permits government control over expressive activities that would not be permitted in the absence of a government subsidy.⁵⁹ While scholars have proposed a number of theories upon which to build a more coherent subsidized

58. Robinson, *supra* note 18, at 921. For instance: the government may prohibit lobbying as a condition of tax exemptions, but it may not prohibit public broadcasters from editorializing as a condition of federal funding. Compare *Regan v. Taxation with Representation of Wash.*, 461 U.S. 540 (1983) (“*TWR*”), with *League of Women Voters*, 468 U.S. at 364. Likewise, the government may condition the funding of artists and of family planning clinics on the expression of particular viewpoints, but it may not so condition the funding of legal services or the funding of specialized university-supported journals. Compare *Nat’l Endowment for the Arts v. Finley*, 524 U.S. 569 (1998), and *Rust*, 500 U.S. at 173, with *Velazquez*, 531 U.S. at 533, and *Rosenberger v. Rector and Visitors of Univ. of Va.*, 515 U.S. 819 (1995). See generally Kenneth W. Simons, *Offers, Threats, and Unconstitutional Conditions*, 26 SAN DIEGO L. REV. 289 (1980). Some scholars have resisted the whole notion of an unconstitutional conditions “doctrine” as such and suggest that the propriety of a government bargain depends on both the governmental and constitutional interest in any given case. The best exposition of this view is in Cass R. Sunstein, *Why the Unconstitutional Conditions Doctrine is an Anachronism (with Particular Reference to Religion, Speech, and Abortion)*, 70 B.U. L. REV. 593 (1990) (recommending that courts examine whether government has constitutionally sufficient justification for interfering with a protected right) and Cass R. Sunstein, *Is There an Unconstitutional Conditions Doctrine?*, 26 SAN DIEGO L. REV. 337 (1989) (proposing that test ought to be whether condition imposes “constitutionally troublesome” burden). Professor Steven Shiffrin has taken a similar approach within the subsidized speech context in advocating that courts approach speech subsidies using an “eclectic” balancing of interests. See Steven Shiffrin, *Government Speech*, 27 UCLA L. REV. 565, 609 (1980) (“The variety of human communicative situations is sufficiently complex and involves enough variables that approaches at high levels of abstraction are of limited assistance.”).

59. See, e.g., David Cole, *Beyond Unconstitutional Conditions: Charting Spheres of Neutrality in Government-Funded Speech*, 67 N.Y.U. L. REV. 675, 683-97 (1992); Steven J. Heyman, *State-Supported Speech*, 1999 WIS. L. REV. 1119 (1999); Post, *supra* note 51, at 151; see also Kathleen M. Sullivan, *Unconstitutional Conditions*, 102 HARV. L. REV. 1413 (1989); Seth F. Kreimer, *Allocational Sanctions: The Problem of Negative Rights in a Positive State*, 132 U. PA. L. REV. 1293 (1984) (dealing with unconstitutional conditions generally). Another perspective is offered by Ep-

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speech doctrine,⁶⁰ the Court has so far ignored these proposals and abstained from identifying any single theory of the First Amendment that would make sense of the extremely factually contingent subsidized speech decisions.⁶¹ To the extent that the Court has gravitated, at least in its rhetoric, to any theory, it is that the First Amendment's primary purpose is to preserve speaker autonomy.

Subsection A below examines the Court's preoccupation with coercion, identifying certain limitations the Court has imposed on the government's ability to design speech subsidies. Subsection B provides a critique of the use of coercion and an alternative explanation for the confused subsidized speech cases.

A. *Speaker Coercion*

The Court in its 1987 decision, *Regan v. Taxation with Representation ("TWR")*, announced a simple and startlingly confident position on the government's freedom to define the contours of its speech subsidies: "a legislator's decision not to subsidize the exercise of a fundamental right does not infringe the right."⁶² This statement, referring to the government's decision not to subsidize the lobbying activities of non-profit organizations through the tax relief provided for other non-profit activities, draws on the concept that the greater power includes the lesser.

stein, *supra* note 53 (the unconstitutional conditions doctrine should be a check only against monopoly, collective action problems and externalities).

60. See, e.g., Cole, *supra* note 59 (measure constitutionality with reference to listener effects); Heyman, *supra* note 59 (measure constitutionality by reflecting on community purposes and respect for persons); Schauer, *supra* note 53 (measure constitutionality by taking into account the type of institution that is subsidized); Post, *supra* note 51 (measure constitutionality by whether the government is acting as manager or patron); Sullivan, *supra* note 59 (measure constitutionality with respect to effect on distributive justice); Kreimer, *supra* note 59 (measure constitutionality against baselines of history, equality and prediction); Mitchell Berman, *Coercion Without Baselines: Unconstitutional Conditions in Three Dimensions*, 90 GEO. L.J. 1 (2001) (measure constitutionality using combinations of coercion test (grounded in normative discourse relevant to particular area of the law) and purpose and germaneness tests).

61. The disconnect between First Amendment decisions and the underlying theories of the First Amendment and conceptions of First Amendment values is a problem throughout contemporary First Amendment doctrine. See, e.g., Robert Post, *Reconciling Theory and Doctrine in First Amendment Jurisprudence*, 88 CAL. L. REV. 2353 (2000); Robert Post, *Recuperating First Amendment Doctrine*, 47 STAN. L. REV. 1249, 1249-50 (1995) ("Although the pattern of the Court's recent First Amendment decisions may well be (roughly) defensible, contemporary First Amendment doctrine is nevertheless striking chiefly for its superficiality, its internal incoherence, its distressing failure to facilitate constructive judicial engagement with significant contemporary social issues connected with freedom of speech.").

62. *TWR*, 461 U.S. at 549; see also *Rust v. Sullivan*, 500 U.S. 173, 193 (1991).

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Since the government may choose to refrain from subsidizing non-profit activities entirely, it may also choose to subsidize such activities selectively. A basic assumption is that the beneficiary of government largesse is entirely free to accept or reject a government benefit along with the conditions attached to it. Therefore, by choosing to accept the benefit, the speaker is not coerced into abandoning a constitutional right. As Justice Cardozo, evaluating the impact of a tax benefit upon a beneficiary, wrote:

[T]o hold that motive or temptation is equivalent to coercion is to plunge the law in endless difficulties. The outcome of such a doctrine is the acceptance of a philosophical determinism by which choice becomes impossible. Till now the law has been guided by a robust common sense which assumes the freedom of the will as a working hypothesis in the solution of its problems.⁶³

The notion that government is absolutely free to give benefits so long as the recipient has no claim upon them, and is free to reject them, is applied in varying degrees depending on the case. The Court has noted that the freedom to accept or reject a benefit may be illusory. The beneficiary might in fact be “given no choice, except a choice between the rock and the whirlpool—an option to forego a privilege which may be vital to his livelihood or submit to a requirement which may constitute an intolerable burden.”⁶⁴ The task in subsidized speech cases is to determine when a real choice exists and when it does not.

The Court has identified, more or less, six limitations on the wide discretion *TWR* granted the government to define its benefits. Four of these limitations—and all of those that have been decisive—rely heavily on an assessment of how the speech benefit affects the speaker to distinguish between a non-subsidy and

63. *Charles C. Steward Mach. Co. v. Davis*, 301 U.S. 548, 589-90 (1937). Kathleen Sullivan convincingly argues that the Court lacks a coherent account of the point at which temptation or deprivation becomes coercion. *See Sullivan, supra* note 59, at 1427-55.

64. *Frost Trucking Co. v. R.R. Comm'n*, 271 U.S. 583, 593 (1926) (striking down a state's attempt to condition the use of highways on a private carrier's acceptance of common carrier liability—a requirement that could not have been imposed directly under pre-*Lochner* notions of substantive due process). *See also Sherbert v. Verner*, 374 U.S. 398 (1963) (invalidating under free exercise clause denial of state unemployment benefits for unemployment ensuing from refusal to work on Sabbath on grounds that condition on benefit forced choice between working under intolerable burden or forfeiting benefits); *Perry v. Sindermann*, 408 U.S. 593, 597 (1972) (“[E]ven though a person has no ‘right’ to a valuable governmental benefit and even though the government may deny him the benefit for any number of reasons, . . . [i]t may not deny a benefit to a person on a basis that infringes his constitutionally protected interests—especially, his interest in freedom of speech.”).

a penalty.⁶⁵ In keeping with an autonomy-maximizing approach to the First Amendment,⁶⁶ the Court looks for some measure of coercion⁶⁷ to determine whether the speaker is alienated from her own expression by accepting the government's conditions on its speech benefits.

1. "No Alternatives" Limitation

Rust v. Sullivan, which upheld regulations that prohibited doctors from using Title X federal funds to discuss abortion, most cogently stated the extent of the government's power to influence speech through subsidies.⁶⁸ *Rust* adopted the greater includes

65. The distinction between a penalty and a non-subsidy shares many of the problems of the distinction between a right and a privilege—a distinction long lambasted as an illusion. See, e.g., Charles A. Reich, *The New Property*, 73 YALE L.J. 733 (1964); William Van Alstyne, *The Demise of the Right-Privilege Distinction in Constitutional Law*, 81 HARV. L. REV. 1439 (1968); see also *Elrod v. Burns*, 427 U.S. 347, 360-61 (1976); *Sugarman v. Dougall*, 413 U.S. 634, 644 (1973); *Board of Regents v. Roth*, 408 U.S. 564, 571 (1972). Whether or not a non-subsidy is a penalty depends, as Professor Cass Sunstein has noted, on the relationship between government power and the activity that is or is not supported. Cass R. Sunstein, *Why the Unconstitutional Conditions Doctrine is an Anachronism (With Particular Reference to Religion, Speech, and Abortion)*, 70 B.U. L. REV. 593 (1990). Whether a non-subsidy is a penalty depends, as Professors Seth Kreimer and Richard Epstein have noted, on the baseline against which we measure whether the government's support is a gratuitous benefit or its non-support an impermissible threat. See Kreimer, *supra* note 59, at 1352-59 and Epstein, *supra* note 53, at 13. At least one scholar, Professor Michael McConnell, accepts the distinction between non-subsidies and penalties relatively uncritically, identifying non-subsidy cases as those in which the speaker, by forfeiting the benefit, need only pay the costs of exercising the speech right and penalty cases, in which the speaker loses much more. See Michael W. McConnell, *The Selective Funding Problem: Abortions and Religious Schools*, 104 HARV. L. REV. 989, 1013-15 (1991); see also Lynn Baker, *Conditional Federal Spending After Lopez*, 95 COLUM. L. REV. 1911 (1995) (making a similar distinction in the federalism context between regulatory spending and reimbursement spending). Perhaps more than any other case, *Lyng v. Int'l Union*, 485 U.S. 360 (1988), undermines McConnell's distinction. There, the Court held that the government's denial of food stamps to striking workers was a constitutional expression of Congress's choice not to subsidize strikers. In this case, forgoing food stamps in order to strike imposed a cost greater than simply the cost of exercising the constitutional right to strike. As discussed below, the debate over what constitutes a benefit rages in the federalism context and is far from settled. See, *infra*, notes 195, 203-204.

66. See, e.g., C. EDWIN BAKER, HUMAN LIBERTY AND FREEDOM OF SPEECH 6768 (1989); THOMAS I. EMERSON, THE SYSTEM OF FREEDOM OF EXPRESSION 6 (1970); MARTIN H. REDISH, FREEDOM OF EXPRESSION: A CRITICAL ANALYSIS 1440 (1989).

67. One might expect the Court to use a theory of coercion to determine whether or not what seemed like an optional government program was really not optional at all as a practical matter. For example, in the context of arts funding, the Court might consider empirical evidence about what other funding sources were available and whether the government program was simply one of many alternatives a beneficiary might have. This is not the way coercion has figured in the cases. It has not operated as a tool to distinguish subsidies from regulations, but as a way to evaluate the impact on the beneficiary of what is accepted, without inquiry, as a subsidy.

68. *Rust v. Sullivan*, 500 U.S. 173, 179-80 (1991).

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the lesser concept by holding that the “[g]overnment can, without violating the Constitution, selectively fund a program to encourage certain activities it believes to be in the public interest, without at the same time funding an alternative program.”⁶⁹ The Court did not admit that Title X discriminated among viewpoints, even if such discrimination is permissible in the context of a government-funded program. Rather, by employing semantic legerdemain, it went so far as to say that when it funds specific messages selectively, “the [g]overnment has not discriminated on the basis of viewpoint; it has merely chosen to fund one activity to the exclusion of the other.”⁷⁰

The *Rust* Court went on to define three limitations on the government’s right to limit some speech in the service of promoting other speech.⁷¹ First, the government cannot leverage its subsidy to restrict speech that is outside of the federally funded program. This “no alternatives” limitation prevents the government from leaving the recipient no alternative outlet for his preferred speech. The Title X restrictions in *Rust* passed this test because they were attached to the funds, not to the recipient, leaving the doctor recipients at least theoretically free to speak about abortion outside of a Title X counseling program.⁷² Had the program not permitted the doctors to advise on abortion options on their own time and with private funds, the speech restrictions presumably would have failed this test because they would have allowed no alternatives.

The *Rust* Court traced the “no alternatives” limitation to *FCC v. League of Women Voters*, which held that the government could not use its contribution to public television stations to prevent public broadcasters from airing privately funded editorials.⁷³ Viewed more broadly, the “no alternatives” limitation

69. *Id.* at 193. For a particularly incisive critique of *Rust* and its description of unconstitutional conditions, see Cole, *supra* note 59 at 683-97.

70. *Rust*, 500 U.S. at 193.

71. Arguably, it defined more. For example, the Court also distinguished the Title X restrictions from those that deny support to a small group of citizens because of the content of their speech, as was the case, for example, with a state sales tax exemption the Court struck down because it was offered to certain specialty magazines, but not to general interest magazines. See *Ark. Writers’ Project, Inc. v. Ragland*, 481 U.S. 221 (1987). As Professor David Cole has pointed out, this articulation of a particular class of unconstitutional conditions is not sensible since all speech-related subsidies have the effect of “singling out a disfavored group on the basis of speech content,’ namely the group that does not receive the subsidy because it seeks to express a different message.” Cole, *supra* note 59, at 690.

72. See *Rust*, 500 U.S. at 198-99.

73. *FCC v. League of Women Voters of Cal.*, 468 U.S. 364 (1984). In subsequent cases, the Court has addressed the impact of speech subsidies on private activities by redirecting its focus from the expansiveness of the condition to the nature of the

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descends from the earliest unconstitutional conditions cases, where courts used germaneness to distinguish coercive penalties from non-coercive non-subsidies. The idea is that if the government is manipulating its subsidy to exact some unrelated abdication of rights, then the subsidy is more likely to be a penalty with a “coercive effect” than a mere non-subsidy.⁷⁴ Thus, in *Speiser v. Randall*, the Court struck down a law conditioning receipt of a property tax exemption on the recipient’s pledge of loyalty.⁷⁵ In *Perry v. Sindermann*, the Court held that the state could not condition employment as a college professor on the professor’s refraining from criticizing the college in state congressional testimony.⁷⁶ If the conditions are germane to the subsidy, it is more likely that the Court will find that the conditions legitimately shape the government program by defining what is and what is not subsidized.⁷⁷

2. “Public Arena” Limitation

Warning that “funding by the government, even when coupled with the freedom of the fund recipients to speak outside the scope of the government-funded project, is [not] invariably sufficient to justify government control over the content of expression,”⁷⁸ the *Rust* Court placed a second limitation on government speech subsidies. Citing public forum and academic freedom cases, the Court stated that subsidies do not excuse government from observing the neutrality traditionally expected of it in certain settings. This “public arena” limitation was developed further in *Rosenberger v. Rector & Visitors of the University of Virginia*.⁷⁹ In that case, the Court held that when the University created a limited public forum through a general student activities fund, but then discriminated on the basis of viewpoint in re-

government program. In doing so, it recast its *Rust* holding as relying on the fact that the “counseling activities of the doctors under Title X amounted to governmental speech . . . [and that] viewpoint-based funding decisions can be sustained in instances in which the government is itself the speaker . . . or instances, like *Rust*, in which the government ‘used private speakers to transmit specific information pertaining to its own program.’” *Legal Servs. Corp. v. Velazquez*, 531 U.S. 533, 541 (2001) (citing *Bd. of Regents of Univ. of Wis. Sys. v. Southworth*, 529 U.S. 217, 229 (2000); quoting *Rosenberger v. Rector & Visitors of the University of Va.*, 515 U.S. 819, 833 (1995)).

74. *Nat’l Endowment for the Arts v. Finley*, 524 U.S. 569, 587 (1998) (quoting *Ragland*, 481 U.S. at 237).

75. 357 U.S. 513 (1958).

76. 408 U.S. 593 (1972).

77. *See, e.g.*, *South Dakota v. Dole*, 483 U.S. 203 (1987).

78. *Rust v. Sullivan*, 500 U.S. 173, 199 (1991).

79. 515 U.S. 833 (1995).

fusing to fund student religious groups, it violated the First Amendment rights of the students who were not funded.⁸⁰

The *Rosenberger* Court, finding that when the State is the speaker it may make content-based choices,⁸¹ agreed with *Rust's* insistence on the government's right to ensure that "[w]hen the government disburses public funds . . . to convey a governmental message, it may take legitimate and appropriate steps to ensure that its message is neither garbled nor distorted by the grantee."⁸² At the same time, it expanded on *Rust's* allusion to a public arena limitation, stating that viewpoint-based restrictions are improper when the government "does not itself speak or subsidize transmittal of a message it favors but instead expends funds to encourage a diversity of views from private speakers."⁸³

It remains to be seen whether the "public arena" limitation will be limited to situations in which the government supports a public forum *per se* or if it will be applied more generally to situations in which the government promotes a range of private speech.⁸⁴ If the former is the case, then *Rosenberger* hardly qualifies as a subsidized speech case at all. When a public forum exists, there is a constitutional right to access that forum.⁸⁵ Thus, if the "public arena" limitation on the tailoring of speech subsidies were limited to actual public fora, permission to use the forum would not be a subsidy, but a constitutional imperative. Accordingly, any limitation of this right would be by definition

80. *Id.* at 834; *See also* Bd. of Regents of Univ. of Wis. Sys. v. Southworth, 529 U.S. 217, 217 (2000).

81. *Rosenberger v. Rector & Visitors of the University of Va.*, 515 U.S. 819, 833 (1995).

82. *Id.*

83. *Id.* at 834. *Rosenberger* also relied on the germaneness principle. When a state establishes a limited public forum for a particular purpose, it may confine the exercise of editorial discretion to that purpose. *Id.* at 829. But the "[s]tate may not exclude speech where its distinction is not 'reasonable in light of the purpose served by the forum.'" *Id.*

84. Justice Scalia's position—that *Rosenberger* should be limited on its facts to actual public fora, see *Nat'l Endowment for the Arts v. Finley*, 524 U.S. 569, 599 (1998) (Scalia, J., concurring) (the viewpoint discrimination in *Rosenberger* was found unconstitutional "because the government had established a limited public forum")—prevailed in *Finley* where the Court declined to require neutrality from the government in the area of arts funding. Justice Souter's position—that *Rosenberger* applies more broadly when the government funds a diversity of views, see *id.* at 613 (Souter, J., dissenting) (the "NEA, like the student activities fund in *Rosenberger*, is a subsidy scheme created to encourage expression of a diversity of views from private speakers")—prevailed in *Velazquez*, although the Court admitted that *Rosenberger* was only instructive and not controlling. *See* *Legal Servs. Corp. v. Velazquez*, 531 U.S. 533, 534 (2001).

85. *See, e.g.*, Harry Kalven, Jr., *The Concept of the Public Forum: Cox v. Louisiana*, 1965 SUP. CT. REV. 1, 29-30.

unconstitutional. If, however, the “public arena” limitation is not limited to public fora, it would give the Court another tool to distinguish penalties from non-subsidies where the government has no constitutional duty to support speech.⁸⁶ That is, while the government can keep its wallet shut, when it chooses to extend its largesse to a select few, it penalizes those who are excluded. For them, the deprivation of the benefit is experienced as a penalty and their desire to avoid a penalty coerces them into giving up constitutional rights.⁸⁷

3. “Core Speech” Limitation

Finally, the *Rust* Court held that speech subsidies must not be aimed at “the suppression of dangerous ideas.”⁸⁸ The rationale behind this limitation, the “core speech” limitation, is that the government must not “discriminate invidiously in its subsidies” for the purpose of silencing ideas it deems dangerous.⁸⁹ Because it found that the Title X conditions were not viewpoint

86. Professor David Cole’s articulation of a proper sphere of government neutrality builds on the “public arena” limitation. His view is that the government, even when it subsidizes speech, has a duty of neutrality in speech fora that by tradition or design host contesting views.

Whether or not the first amendment requires the state to subsidize such institutions at all, once the state chooses to do so, first amendment values dictate that the state’s subsidies be allocated in such a way as to respect the autonomy and independence of the speakers within them, in the interest of protecting both the liberal values of autonomy and the republican ideal of a forum for civic dialogue.

Cole, *supra* note 59, at 711.

87. If one is guided by the autonomy-maximizing theory of the First Amendment in examining speech subsidies, the broad reading of *Rosenberger*, which did not limit its holding to public or limited public fora, would reduce the applicability of *Rust* to conditions attached to mass media speech at least where such conditions are viewpoint specific. While it is quite clear under prevailing doctrine that even a publicly funded mass medium is not a public forum, see *Ark. Ed. Television Comm’n v. Forbes*, 523 U.S. 666 (1998), government subsidies to the electronic media are like university grants in that they are given to encourage a diversity of voices.

88. *Rust v. Sullivan*, 500 U.S. 173, 192 (1991).

89. *Regan v. Taxation with Representation of Wash.*, 461 U.S. 540, 548 (1983) (“*TWR*”) (quoting *Cammarano v. United States*, 385 U.S. 498, 513 (1959)); *see also* *Bd. of Educ. v. Pico*, 457 U.S. 853, 871 (1982) (holding that removal of government-purchased books from school library violates First Amendment if done to suppress ideas); *Leathers v. Medlock*, 499 U.S. 439, 453 (1991) (striking down on First Amendment grounds government assistance that “is directed at, or presents the danger of suppressing, particular ideas”). The Appeals Court decision in *Velazquez* expressly relied on this rationale in its decision invalidating the LSC restrictions (“[D]ifferent types of speech enjoy different degrees of protection under the First Amendment The strongest protection of the First Amendment’s free speech guarantee goes to the right to [criticize] government or advocate change in governmental policy In our view, a lawyer’s argument to a court that a statute, rule, or governmental practice standing in the way of a client’s claim is unconstitutional or otherwise illegal falls far closer to the First Amendment’s most protected categories

discriminatory, the *Rust* Court avoided the question of whether or not a government program that suppressed speech in the area of abortion rights could be considered the suppression of a dangerous idea.⁹⁰ This is the only limitation that focuses on the type of speech that is burdened and the impact of such burdens on public discourse. It is difficult to chart the boundaries of this “core speech” limitation because the Court has never explicitly ruled on this ground. However, as Part IV below suggests, the inquiry into the quality and importance of the affected speech is not reserved for obviously dangerous ideas. Rather, furtive judgments about the perceived value of the speech burdened by federal subsidies best explain the results in the recent subsidized speech cases, even though the Court has yet to justify the invalidation of a speech subsidy on these grounds.

4. “Objective Criteria” Limitation

The two major subsidized speech cases following *Rust* added three more *desiderata* for determining the constitutionality of conditions attached to a government speech subsidy. In *National Endowment for Arts v. Finley*, the Court upheld a requirement that the NEA take into consideration general standards of “decency and respect” for Americans’ diverse beliefs and values in selecting arts grant recipients.⁹¹ The argument before the Court was that the NEA, like the university in *Rosenberger*, was sponsoring a diversity of speech and therefore was not entitled to direct the speech so funded. The Court distinguished *Finley* from *Rosenberger*, stating that, in dispensing support for the arts, “the Government does not indiscriminately ‘encourage a diversity of views from private speakers’ The NEA’s mandate is to make esthetic judgments, and the inherently content-based ‘excellence’ threshold for NEA support sets it apart from the subsidy at issue in *Rosenberger*.”⁹² Thus, the consideration of a particular viewpoint, *i.e.* decency, in awarding grants was not constitutionally

of speech than abortion counseling or indecent art.” *Velazquez v. Legal Servs. Corp.*, 164 F.3d 757, 771 (2d Cir. 1999).

90. Similarly, in *Finley*, the Court avoided the question of whether a government program that suppressed indecent speech qualified as the suppression of dangerous ideas by finding that the program was not viewpoint discriminatory. See *Nat’l Endowment for the Arts v. Finley*, 524 U.S. 569, 587 (1998).

91. *Id.* at 587-88.

92. *Id.* at 586 (citing *Rosenberger v. Rector & Visitors of the Univ. of Va.*, 515 U.S. 833, 834 (1995)).

problematic because “absolute neutrality is simply ‘inconceivable.’”⁹³

Important to the Court’s decision was the fact that the decency provision was not dispositive, but was merely a factor to be taken into account.⁹⁴ Because the NEA grant makers could give whatever weight they wanted to the decency factor, the *Finley* Court determined that the statute under review did not discriminate on the basis of viewpoint. As the *Rust* Court had before it, the *Finley* Court minimized the seriousness of the speech restriction by obliterating the government’s viewpoint in its construction of the subsidy.⁹⁵ The reliance of the *Finley* Court on the subjectivity of the grant criteria yields the “objective criteria” limitation on the government’s power to craft speech subsidies. A speech subsidy may be unconstitutional if it is distributed according to objective criteria but then denied on the basis of particular viewpoints.⁹⁶

93. *Id.* at 585. This was not a case in which the government had “leverage[d] its power to award subsidies on the basis of subjective criteria into a penalty on disfavored viewpoints.” *Id.* at 587.

94. *Id.* at 583-84.

95. In *Finley*, like *Rust*, the Court tried to avoid upholding a viewpoint-discriminatory subsidy by denying that the conditions on the subsidy were viewpoint based. In *Rust*, the Court stated that in conditioning Title X funding on no abortion counseling, “the Government has not discriminated on the basis of viewpoint; it has merely chosen to fund one activity to the exclusion of the other.” *Rust v. Sullivan*, 500 U.S. 173, 193 (1991). Similarly, in *Finley*, the Court wrote that the standards of decency provision does not “engender the kind of directed viewpoint discrimination that would prompt this Court to invalidate a statute on its face”. *Finley*, 524 U.S. at 583; see also *id.* at 587 (“If the NEA were to leverage its power to award subsidies on the basis of subjective criteria into a penalty on disfavored viewpoints, then we would confront a different case.”). These are odd statements, given the facts that the Title X subsidy required the promotion of pro-natal policies and proscribed the exploration of controversial abortion options and the NEA grants favored mainstream art over controversial art. The Court’s dicta in both cases attempt to avoid the discomfort of upholding clearly viewpoint-discriminatory, but nevertheless putatively constitutional, conditions on speech subsidies.

96. The “objective criteria” limitation explains both a previous Supreme Court decision and a subsequent lower court holding. In *Hannegan v. Esquire, Inc.*, 327 U.S. 146 (1946), the Court struck down postal regulations that denied preferential second-class mail privileges to *Esquire* magazine because it contained content the Postmaster General deemed indecent. Central to the Court’s holding was the fact that the subsidy was generally available to magazines according to “objective standards which refer in part to their contents, but not to the quality of their contents.” *Id.* at 152; see also *id.* at 148 (the magazines must be “published for the dissemination of information of a public character, or devoted to literature, the sciences, arts, or some special industry”). Thus, the government exceeded constitutional limits by tailoring its generally available subsidy on the basis of viewpoint-based judgments. The distinction between a general subsidy distributed in a discriminatory manner and a special subsidy distributed properly according to subjective criteria is of course illusive. The facts in *Hannegan* might have resembled those in *Finley* had the government, in order to support the distribution of certain magazines, con-

Like the “public arena” limitation, the “objective criteria” limitation is a variation on the penalty/non-subsidy distinction. Where the subsidy is otherwise available on an objective basis, the non-subsidy of certain speech resembles a penalty for those who would otherwise be entitled to the subsidy but for their desire to engage in the non-subsidized speech. Where the subsidy is distributed selectively according to subjective criteria, no one is entitled to the subsidy and, therefore, denial of the subsidy is simply a non-subsidy, not a penalty.

5. “Private Speech” Limitation

The most recent subsidized speech case, *Legal Servs. Corp. v. Velazquez*, articulated the fifth and sixth limitations on the government’s powers of speech subsidization.⁹⁷ In *Velazquez*, the Supreme Court held unconstitutional a law prohibiting Legal Services Corporation (LSC) grantees from receiving LSC funds if their representation of indigent clients involved “an effort to amend or otherwise challenge” existing welfare laws.⁹⁸

The Court distinguished *Velazquez* from *Rust* on the grounds that the LSC program was “designed to facilitate private speech” (like the University’s journal subsidies in *Rosenberger*) and not to promote a “governmental message” (like Title X’s pro-life message).⁹⁹ “The advice from the attorney to the client and the advocacy by the attorney to the courts,” wrote Justice Kennedy, “cannot be classified as governmental speech even under a generous understanding of the concept. In this vital respect this suit is distinguishable from *Rust*.”¹⁰⁰ The “private speech” limitation is

structed a postal subsidy to be awarded on a competitive basis to the producers of content the government believed to be of particular merit. In *Brooklyn Inst. of Arts and Sciences v. City of N.Y.*, 64 F. Supp. 2d 184 (E.D.N.Y. 1999), a district court invalidated the New York City’s requirement that the Brooklyn Museum of Art shut down a risqué exhibit in order to continue to receive previously-appropriated city subsidies. The Court distinguished the case from *Finley* on the grounds that the museum subsidy had already been appropriated on objective grounds, but was subsequently withdrawn to squelch certain viewpoints.

97. *Velazquez*, 531 U.S. 533 (2001).

98. *Id.* at 539 (internal quotations omitted).

99. *Id.* at 542.

100. *Id.* at 542-43. The Court noted that although *Rust* “did not place explicit reliance on the rationale that the counseling activities of the doctors under Title X amounted to governmental speech,” subsequent cases have seen *Rust* as an instance in which the government used private speakers to transmit information about its own program. *Id.* at 541 (citing *Bd. of Regents of Univ. of Wis. Sys. v. Southworth*, 529 U.S. 217, 235 (2000); quoting *Rosenberger v. Rector & Visitors of the Univ. of Va.*, 515 U.S. 833, 833 (1995)). *Velazquez* also distinguished *Rust* on a variant of the “no alternatives” limitation. Instead of looking to whether or not the recipient of the subsidy had alternative avenues of expression outside of the subsidized program,

another lens through which to view the penalty/non-subsidy distinction. A speaker who is merely delivering the government's message will feel less penalized by losing support to deliver that message than one who is delivering his own message.

6. "Institutional Distortion" Limitation

The *Velazquez* Court also posited an "institutional distortion" limitation to the government's discretion to subsidize its speech benefits. This is the first limitation to focus on the impact of the subsidy on the listener rather than on the speaker or the speech. The Court observed that "[w]here the government uses or attempts to regulate a particular medium, we have been informed by its accepted usage in determining whether a particular restriction on speech is necessary for the program's purposes and limitations."¹⁰¹ The conditions on LSC funding, the Court concluded, "distort[ed]" the "usual functioning" of an expressive medium. This distortion in *Velazquez* was particularly problematic because the judicial function is one of the checks on government and distortion of that function by the legislature is "inconsistent with accepted separation-of-powers principles."¹⁰²

B. *Effect of Speech Subsidies on Public Discourse*

The coercion analysis ostensibly looks at how conditional speech subsidies function and how they affect the speaker's autonomy without reference to the type of speech that they may burden. Does the condition restrict the beneficiary's freedom to say what he wants in his own time and with private funds? Does the condition shape the government's own speech or the speech of private parties? The use of coercion as a constraint on the government's power of patronage has tremendous appeal, but it is too slippery a concept to do the work that the Court assigns it.

the Court looked at whether or not the client served by the recipient had other alternatives if the subsidized recipient was restricted in the services she could provide.

101. *Legal Servs. Corp. v. Velazquez*, 531 U.S. 533, 543 (2001). The Court read this "accepted usage" principle into a number of cases, including *League of Women Voters*, which it said stood for the proposition that the "First Amendment forbade the Government from using the forum in an unconventional way to suppress speech inherent in the nature of the medium." *Id.* The institutional distortion theory picks up on ideas that are central to Professor Cole's theory that subsidies should be judged by the way they impact listeners, *Cole supra* note 59, and Professor Schauer's theory of an institutionally-specific First Amendment review. *See Schauer, supra* note 53.

102. *Velazquez*, 531 U.S. at 546. However, as the dissent convincingly argued, the proffered antecedents for this limitation suggest nothing of the kind. *See id.* at 550 (Scalia, J. dissenting). Rather, as discussed in Section II.B. below the Court conjured it up to buttress the vulnerable "government speech" holding.

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The protection of personal liberty simply cannot explain the results in the subsidized speech cases. This Section provides a critique of the use of coercion-based factors alone to decide the subsidized speech cases.

I suggest that the Court itself is not satisfied with this analysis and seems to be moved by considerations that go beyond the speaker. For example, speech that is more closely related to core political expression is more likely to be protected even where burdens on such speech have been bargained for and not coerced.¹⁰³ What the Court has done, if not what it has said, is better justified by a theory of the First Amendment that values free speech protections for their instrumental value in a democratic political system.¹⁰⁴

1. Speaker-Based Limitations Are Unsatisfactory

The subsidized speech cases are hard to reconcile, as a critical examination of just a few of them shows. Decisions that ostensibly turn on the question of when inducement becomes coercion, of when liberty surrendered is liberty denied, will inevitably appear somewhat arbitrary. But the conundrum of speaker autonomy is not solely responsible for the doctrinal confusion. Also to blame is the Court's unweighted, and sometimes unacknowledged, consideration of factors that have little to do with speaker impact or questions of coercion. The Court reveals, through its reach outside of the speaker's interest to anchor its decisions, the weakness of speaker-based limitations on subsidized speech.

Finley introduces the "objective criteria" limitation on the government's power to subsidize speech selectively, allowing an otherwise unconstitutional criterion for the award of a benefit to be saved if all the other criteria are subjective and the government does not specify which criterion is dispositive. The subsidy

103. When I say that a particular factor better justifies or explains the subsidized speech decisions, I mean that it has been necessary, although perhaps not sufficient, to the outcome of those cases.

104. The view that the purpose of the First Amendment is to benefit society, not the individual, by exposing citizens to the ideas that are essential to republican government is most famously espoused by Alexander Meiklejohn. See ALEXANDER MEIKLEJOHN, *POLITICAL FREEDOM: THE CONSTITUTIONAL POWERS OF THE PEOPLE* 26 (1965) (the First Amendment is a safeguard for responsible collective decision making, not for individual rights); see also CASS R. SUNSTEIN, *DEMOCRACY AND THE PROBLEM OF FREE SPEECH* (2d ed. 1995). Another account of democracy reconciles the autonomy-maximizing view of the First Amendment with the democratic process view in locating self-governance not in responsible decision-making but in the mere act of deciding. See, e.g., Robert Post, *Equality and Autonomy in First Amendment Jurisprudence*, 95 MICH. L. REV. 1517, 1523 (1997).

survives if it is distributed according to multi-factored standards rather than rules. This distinction cannot possibly be right.¹⁰⁵ After all, the college admissions process is notoriously vulnerable to an unconstrained balancing of factors. It takes into account all sorts of constitutionally unproblematic criteria like geography, family legacies, grades, extracurricular activities, and the artistry of the application essay. Certainly, though, the Court would strike down a law that state schools must consider, in their balancing of these considerations, the political affiliation of the student.¹⁰⁶ Thus, it cannot be that the indecency limitation falls on the acceptable side of the penalty/non-subsidy divide simply because it is one of many factors that judges of art may consider.

The “private speech” limitation is similarly unconvincing as an explanation of *Velazquez*. The LSC program was not designed to foster an array of private speech, as distinct from government speech, but to provide for the representation of indigent clients who were denied welfare benefits. The upshot of the LSC representation is not a variety of views, but a single view—that the client was wrongfully denied benefits to which she was entitled. The Title X doctor’s speech in *Rust* is no more “government speech” than is the LSC lawyer’s speech in *Velazquez*. The doctor has been subsidized to counsel women with respect to family

105. For a criticism of *Finley* on this point, see Schauer, *supra* note 53, at 95 (“It is hard to imagine that the result in *Texas v. Johnson* would have been different had the degree of respect shown for the American flag been merely a ‘factor’ to be considered in deciding when unofficial uses of the flag would be permitted.”) (citations omitted).

106. Justice Souter makes the further point in his dissent that whether a benefit is given out competitively has no bearing on the constitutionality of the criteria for the benefit. That a government program is competitive is simply because of the economic fact of scarcity. “Scarce money demands choices, of course, but choices ‘on some acceptable [viewpoint] neutral principle,’ like artistic excellence and artistic merit; ‘nothing in our decision[s] indicate[s] that scarcity would give the State the right to exercise viewpoint discrimination that is otherwise impermissible.’” *Nat’l Endowment for the Arts v. Finley*, 524 U.S. 524, 614-15 (1998) (quoting *Rosenberger v. Rector & Visitors of the Univ. of Va.*, 515 U.S. 833, 835 (1995) (Souter, J., dissenting)). Justice Souter also cites *Ark. Educ. Television Comm’n v. Forbes*, 523 U.S. 666, 676 (1998) for support of his neutral principle concept. See *id.* But this case, which held that a public television station may exclude candidates from a televised debate on the basis of neutral selection criteria like their standing in the polls, shows how difficult it is to come up with viewpoint-neutral criteria when making competitive selections. The leading candidates, who are included in the debate, will almost always have more mainstream positions with greater mass appeal than those of the more marginal candidates who are excluded from the debate. This is not to say that Justice Souter is wrong in criticizing the *Finley* majority’s distinction between generally available and selective benefits, but simply to point out that the line Justice Souter would draw between neutral and non-neutral conditions on scarce government speech benefits may be no more definite.

planning in some ways, but not in others. The LSC lawyer has been subsidized to represent indigent clients on some welfare benefit claims, but not on others. Both programs were designed to provide some, but not all, counseling and legal services to eligible clients. Neither program was designed as a platform for government expression. In both cases, the viewpoint-based restrictions on speech were imposed to further government interests – a pro-natal policy in one case and reduced impact litigation in the other.¹⁰⁷ Let us suppose that the central question in the subsidized speech cases is whether or not the limitations on the subsidy threaten “to drive ‘certain ideas or viewpoints from the marketplace.’”¹⁰⁸ The muzzles on doctors, who are often the only medical personnel poor women will see, and those on lawyers, who are often the only legal personnel poor welfare benefit applicants will see, would seem to have just that effect regardless of how the speech is characterized.¹⁰⁹

Another distinction the majority in *Velazquez* drew between the LSC and Title X restrictions on speech was that the former distorted the “usual functioning” or “accepted usage” of the subsidized institution.¹¹⁰ The condition that LSC funds not be used for constitutional challenges resulted in such distortion by “altering the traditional role of the attorneys” and by “prohibit[ing] speech and expression upon which courts must depend for proper exercise of judicial power.”¹¹¹ It is hard to see how the legal profession is more distorted by lawyers’ being limited in what they say than the medical profession is by doctors’ being so limited. It must be that in *Velazquez*, it was the distortion of the judicial process in particular, not institutional distortion generally, that was of concern. One can only conclude that it was the disabling of speech that challenges the government’s order, and is at its

107. Even if there were a valid distinction for constitutional purposes between the speech in *Rust* and in *Velazquez*, why wouldn’t the force of that distinction produce different results—that is, a disallowance of the condition attached to the subsidy—in *Finley* and *TWR*? Both *Finley* and *TWR* involved not only private speech, but programs that sponsored a diversity of views.

108. *Finley*, 524 U.S. at 587 (quoting *Simon & Schuster, Inc. v. Members of N.Y. State Crime Victims Bd.*, 502 U.S. 105, 116 (1991)); see *Cole*, *supra* note 59, at 704-06.

109. In fact, the impact of the constraints on the doctor’s “government speech” is probably greater because the doctor is not permitted to even identify that abortion is an option. The doctor’s patient may well leave the session unaware of the idea that has been suppressed. The lawyer, by contrast, may identify the legal issue she cannot pursue and therefore at least allow the client to seek help elsewhere.

110. *Velazquez*, 531 U.S. at 543.

111. *Id.* at 544-45.

core political speech, that was problematic, and not the impact of the government program on speaker autonomy.¹¹²

2. Speech Based Considerations Play a Role

Since the indicia of coercion the Court has apparently used in the subsidized speech decisions to protect speaker autonomy do not adequately support the results of those cases, something else must be going on. An alternative underpinning for many of the decisions is that the First Amendment is primarily a tool for democratic self-government.¹¹³ In other words, a version of the Court's "core speech" limitation is silently at work in many of the subsidized speech cases.

A central purpose of the First Amendment is to guarantee an "unfettered interchange of ideas for the bringing about of political and social changes desired by the people."¹¹⁴ In keeping with this view, the Court has shown special consideration for expressly political speech and affords such expression heightened scrutiny.¹¹⁵ At the same time, the Court has made clear that the "First Amendment does not protect speech and assembly only to the extent it can be characterized as political [F]ree speech and a free press are not confined to any field of human inter-

112. See *id.* at 1053-65 (Scalia, J., dissenting). See also *Leading Cases*, 115 HARV. L. REV. 306, 431 (2001).

113. The First Amendment functions as the "guardian of our democracy." *Brown v. Hartlage*, 456 U.S. 45, 60 (1982). The most conspicuous contemporary supporters on the Left and Right of the view that the purpose of the First Amendment is principally to safeguard and support political deliberation are Cass Sunstein, see, e.g., SUNSTEIN, *supra* note 104, and Robert H. Bork, *Neutral Principles and Some First Amendment Problems*, 47 IND. L.J. 1 (1971). Of course, the range of speech that commentators consider to be political or necessary to public discourse is very broad and it changes over time. Judge Robert Bork initially suggested that the category of political speech should include only that speech that is "explicitly political", *id.* at 20, but then expanded his view of what should be protected to include "many forms of speech and writing that are not explicitly political." ROBERT H. BORK, *THE TEMPTING OF AMERICA* 333 (1990). Similarly, the dean of the political process First Amendment theorists, Alexander Meiklejohn, shifted from a narrow view of political speech as that directly related to government, see ALEXANDER MEIKLEJOHN, *FREE SPEECH AND ITS RELATION TO SELF-GOVERNMENT* 94 (1948), to a view that protected speech important to self-government includes speech such as "novels and dramas and paintings and poems". Alexander Mikeljohn, *The First Amendment is an Absolute*, 1961 SUP. CT. REV. 245, 263 (quoting Kalven, *Metaphysics of Law of Obscenity*, 1960 SUP. CT. REV. 1, 15-16). What binds the democracy theorists is not their definition of what speech should be protected but why speech should be protected.

114. *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 269 (1964) (quoting *Roth v. United States*, 354 U.S. 476, 484 (1957)).

115. See, e.g., *Brown v. Hartlage*, 456 U.S. 45, 52-53 (1982); *In re Primus*, 436 U.S. 412, 437-38 (1978); *First Nat'l Bank of Boston v. Bellotti*, 435 U.S. 765, 786 (1978); *Buckley v. Valeo*, 424 U.S. 1, 14 (1976).

est.”¹¹⁶ Because it is both difficult and dangerous to distinguish between speech that is necessary or useful for citizenship and other kinds of speech,¹¹⁷ full First Amendment protection extends to “expression about philosophical, social, artistic, economic, literary, or ethical matters.”¹¹⁸

The Court has used the subsidized speech doctrine to protect core First Amendment political speech to a degree that it does not when the government directly regulates speech. Subsidies that curb core First Amendment public discourse are invalidated while those that affect speech peripheral to First Amendment purposes are upheld.¹¹⁹ Where the right is of fundamental importance to a deliberative democracy, such as the right to broadcast editorials or the right to criticize a law in court, the government will have a much harder time defending a burden on this right as a condition of a benefit.¹²⁰ However, where the right is farther from core First Amendment concerns, such as the right to discuss medical alternatives or the right to create indecent art, the government will be given more latitude in crafting its benefit package to discourage these expressions.¹²¹ While the existence

116. *United Mine Workers v. Ill. State Bar Ass’n*, 389 U.S. 217, 223 (1967).

117. *See, e.g., Cohen v. Cal.*, 403 U.S. 15, 16 (1971) (“[O]ne man’s vulgarity is another’s lyric.”); *Winters v. N.Y.*, 333 U.S. 507, 510 (1948) (“What is one man’s amusement, teaches another’s doctrine.”).

118. *Abood v. Detroit Bd. of Educ.*, 431 U.S. 209, 231 (1977). *See generally* ZUCKMAN ET AL., *supra* note 12, §1.2.

119. The subsidized speech decisions, in dicta, do recognize the special place of political speech in the First Amendment canon, but the political character of the speech is not determinative. *See, e.g., FCC v. League of Women Voters of Cal.*, 468 U.S. 364, 375-76 (1984) (political speech “is entitled to the most exacting degree of First Amendment protection”); *Legal Servs. Corp. v. Velazquez*, 531 U.S. 533, 547 (2001) (burdening legal representation “implicat[es] central First Amendment concerns.”). In other contexts as well, the Court has accorded political speech special protection. *See, e.g., Connick v. Myers*, 461 U.S. 138, 143-46 (1983) (discussing history of First Amendment protection for political speech by public employees).

120. It should be noted that *Rust*, in dicta, analogizes Congress’ speech limitations on family planning funds to the establishment of the “National Endowment for Democracy to encourage other countries to adopt democratic principles . . . [without at the same time funding] a program to encourage competing lines of political philosophy such as communism and fascism.” *Rust v. Sullivan*, 500 U.S. 173, 194 (1991). Even though the example concerns a limitation on political speech, it does not really involve a limitation that goes to core First Amendment values. As Professor Robert Post has pointed out, the National Endowment for Democracy directs speech at foreigners who do not enjoy First Amendment rights at all and, in any case, are not likely to be indoctrinated by U.S. propaganda that simply adds another voice to the mix. Post, *supra* note 51, at 192. The example would be much more problematic if it concerned the funding of government speech in the U.S.

121. In *TWR*, the Court upheld subsidies (in the form of tax exemptions) for the activity of nonprofits that did not involve lobbying. Interestingly, the Court did not give much credence to the notion that lobbying was a critical component of political self-determination such that an inducement to give up those activities might com-

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of a core speech burden would probably not be sufficient to invalidate a government subsidy in all cases, it is a more important factor than the Court has admitted and its explicit elevation over other factors might well lead to a less confused subsidized speech doctrine.

Further reflection on the subsidized speech cases reveals how the concern for core First Amendment speech better explains the outcomes than does a concern for personal liberty. For instance, the *Finley* Court presumably would have taken a different view of a grant criterion relating to criticism of the government, even if it *was* one of many indeterminate criteria. If Congress had told the NEA that it should consider whether or not the candidate artists would depict the President in an unflattering light as a factor in awarding grants, the Court would not likely have been constrained by the “objective criteria” limitation in striking down the law. Indecent art, as opposed to anti-government art, is simply not core political speech.

Likewise, suppose that *Rust* had dealt not with medical counseling but with abortion advocacy and the government had subsidized advocates of women’s health so long as they did not take pro-choice positions. It is likely that the *Rust* Court would have found that this condition on a speech subsidy fell within the “core speech” limitation and was constitutionally impermissible because political advocacy is different from medical counseling. The difference between the suppression of abortion counseling and the suppression of pro-choice advocacy turns on the fact that the counseling implements an existing policy and is the *product* of a public debate while political advocacy shapes future policy and *contributes* to the public debate.¹²²

Reliance on the “core speech” limitation serves to explain the invalidations of government speech subsidies that preceded *Rust*. In *Speiser v. Randall*, for example, the problem was not that the loyalty oath condition penalized the exercise of rights of expression, but that the denial of the benefit was “aimed at the sup-

promise democratic values. Alexander Meikeljohn’s work would support the rather odd view that expressive activities like fiction may be more important to self-government than the communication of paid lobbyists with government officials. See MEIKELJOHN, *POLITICAL FREEDOM* 55-76, 160, 63 (1960).

122. Justice Scalia excoriated the *Velazquez* majority for making a distinction between doctors’ and lawyers’ speech. “The only difference between *Rust* and the present cases is that the former involved ‘distortion’ of (that is to say, refusal to subsidize) the normal work of doctors, and the latter involves ‘distortion’ of (that is to say, refusal to subsidize) the normal work of lawyers.” *Velazquez*, 531 U.S. at 562 (Scalia, J., dissenting).

pression of dangerous ideas.”¹²³ In *Perry v. Sindermann*, the expression burdened by acceptance of the government benefit was the core political speech of Congressional testimony.¹²⁴ In *League of Women Voters*, the Court focused primarily on the nature of the speech burden, which was based “solely on the . . . content of the suppressed speech” and was “motivated by nothing more than a desire to curtail expression of a particular point of view” on issues of public importance.¹²⁵ This focus on core speech also explains *Velazquez*. In that case, the Court explained that the restriction placed on LSC regarding taking on cases with constitutional dimensions “implicat[es] central First Amendment concerns.”¹²⁶ Accordingly, it stated that Congress’s funding decision “cannot be aimed at the suppression of ideas thought inimical to the Government’s own interest.”¹²⁷

Thus, an alternative reading of the subsidized speech cases is that the Court is less concerned with the potentially coercive effect of a conditional speech subsidy than it is with the injury the subsidy might do to free expression that is closely tied to democratic self government.¹²⁸ At the very least, it appears clear that the autonomy-maximizing rationales cannot alone support the subsidized speech decisions. A reliance on speaker autonomy as the linchpin for the constitutionality of speech subsidies becomes even more unstable when it comes to dealing with communications industry subsidies like SHVIA than it is in cases in which the subsidy goes to individual speakers.

III. SHVIA AND SUBSIDIZED SPEECH

In the face of more rigorous First Amendment review of communications regulations, Congress turned to a speech subsidy, in the form of a copyright license, to soften judicial scrutiny of its broadband video policies. In this section, I will review how SHVIA came to be and how it offered relief from copyright liability in exchange for local station carriage. I will then demonstrate that SHVIA is the kind of benefit that “counts” for the subsidized

123. *Speiser v. Randall*, 357 U.S. 513, 519 (1958) (internal quotations omitted).

124. *Perry v. Sindermann*, 408 U.S. 593, 597 (1972).

125. *FCC v. League of Women Voters of Cal.*, 468 U.S. 364, 383-84 (1984).

126. *Velazquez*, 531 U.S. at 547.

127. *Id.* at 549.

128. Justice Scalia has made his views on this issue explicit, going so far as to state that government may allocate funding “*ad libitum*,’ insofar as the First Amendment is concerned,” *Nat’l Endowment for the Arts v. Finley*, 524 U.S. 569, 599 (1998) (Scalia, J., dissenting), but circumscribing this *laissez faire* approach where the subsidy is aimed at the suppression of dangerous ideas. See *Ark. Writers’ Project, Inc. v. Ragland*, 481 U.S. 221, 237 (1987) (Scalia, J., dissenting).

speech doctrine, even though it does not involve cash grants from the government to the speaker. Finally, I will show how the coercion-based subsidized speech doctrine fails to vindicate important First Amendment values in this and other information policy contexts.

A. *The Creation of SHVIA*

One of the most persistent goals of U.S. communications policy has been the creation and preservation of a nationwide system of local, advertising-supported, over-the-air broadcast stations.¹²⁹ This goal justified the original assignment of television stations in the 1950's to hundreds of communities across the country. Although this system of spectrum assignments was not particularly efficient,¹³⁰ it furthered the goals of localism and the diversity of ownership and content.¹³¹ As the Supreme Court has noted, "Congress designed this system of allocation to afford each community of appreciable size an over-the-air source of information and an outlet for exchange on matters of local concern."¹³² Localism has also justified the ownership restrictions that limit broadcasters' ability to aggregate licenses and certain

129. See, e.g., Cable Act, S. Rep. No. 92, 102d Cong. 42 (1992), *reprinted in* 1992 U.S.C.C.A.N. 1133, 1175 ("There is no doubt that, over the past forty years, television broadcasting has provided vital local services through its programming, including news and public affairs offerings and its emergency broadcasts."); *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 663 (1994) (*"Turner I"*) ("[T]he importance of local broadcasting outlets 'can scarcely be exaggerated, for broadcasting is demonstrably a principal source of information and entertainment for a great part of the Nation's population.'") (quoting *United States v. Southwestern Cable Co.*, 392 U.S. 157, 177 (1968)); Amendment of Part 76 of the Commission's Rules Concerning Carriage of Television Broadcast Signals by Cable Television Systems, *Report and Order*, 1 F.C.C.R. 864, 865 (1986) (discussing value of local broadcast television stations in providing "a means for community self-expression" as one of rationales for original FCC must-carry rules).

130. The most spectrally efficient way of designing a broadcast system given the technology of the time would have been to provide for the operation of powerful regional stations with large service areas, much in the way that European systems were built. By contrast, in the 1950's, the FCC dispersed television station permits throughout smaller towns as well as urban centers within larger regions in order to "protect[] the interests of the public residing in smaller cities and rural areas . . . [and ensure that] as many communities as possible . . . have the advantages that derive from having local outlets that will be responsive to local needs." *Sixth Report and Order*, 17 Fed. Reg. 3905, ¶¶ 68, 79 (1952).

131. The statutory justification for these assignments is Section 307 of the Communications Act, which obligates the Commission to manage the limited television spectrum so that, to the extent possible, all communities are served by local stations. 47 U.S.C. § 307(b) (2000) ("[T]he Commission shall make such distribution of licenses, frequencies, hours of operation, and of power among the several States and communities as to provide a fair, efficient, and equitable distribution of radio service to each of the same.").

132. *Turner I*, 512 U.S. at 663.

other media interests within a geographic area¹³³ and rules that protect the programming exclusivity of local network affiliates.¹³⁴

1. Cable Must-Carry

The growth of cable penetration and its metamorphosis into a competitor to broadcast television posed a threat to the continued vitality of local broadcast stations. Congress believed that if cable systems chose not to carry the local signals (which was particularly likely in the case of independent and public television stations with less mass appeal than the network-affiliated stations), then cable subscribers would be unlikely to view the stations, viewership-based advertising dollars would drop dramatically, and the local stations would likely disappear.¹³⁵ As a result, viewers that did not subscribe to cable would be left with fewer television signals.¹³⁶

In 1992, Congress adopted the Cable Television Consumer Protection and Competition Act (Cable Act), which required most local cable systems operating in a given market to transmit the

133. See 47 C.F.R. § 73.3555(b)-(c) (2001); see also Telecomms. Act of 1996, S. Rep. No. 23, 104th Cong. 69 (1995) (“Any modification in the national [broadcast television station] ownership cap is important because of localism concerns. Local television stations provide vitally important services to our communities. Because local programming informs our citizens . . . and provides other community-building benefits, we cannot afford to undermine this valuable resource.”) (additional views of Sen. Hollings); H.R. Rep. No. 104-204 (1995) at 118-19 (noting that the law is intended to serve the goals of “competition and diversity,” while “maintaining several independent voices in each local market”); 141 Cong. Rec. E1571, E1573 (daily ed. Aug. 1, 1995) (“The drastic and indiscriminate elimination of mass media ownership rules . . . would eviscerate the public interest principles of diversity and localism Because American society is built upon local community expression, the policy favoring localism is fundamental to the licensing of broadcast stations.”) (statement of Rep. Markey); Review of the Commission’s Regulations Governing Television Broadcasting, Television Satellite Stations Review of Policies and Rules, *Second Further Notice of Proposed Rulemaking*, 11 F.C.C.R. 21655, 21659-60 (1996) (discussing the principal goals of the local television ownership rule).

134. Amendment of Parts 73 and 76 of the Commission’s Rules Relating to Program Exclusivity in the Cable and Broadcast Industries, *Report and Order*, 3 F.C.C.R. 5299, 5311 (1988).

From a regulatory standpoint, broadcasters are governed by unique regulatory mechanisms that are designed to ensure they will serve their communities of license. In short, the Communications Act and our regulations have held broadcasters to a standard of operating in the public interest, convenience and necessity, with obligations to serve their local communities.

Id.

135. See *Turner I*, 512 U.S. at 646-47 (citing detailed congressional findings in Cable Act that because of the economic incentives of cable not to carry local broadcast signals, the availability of free local broadcast would be threatened without must-carry requirements).

136. See *id.* (same).

local broadcast signals, subject to certain limitations.¹³⁷ These requirements were designed “to guarantee the survival of a medium that has become a vital part of the Nation’s communication system” and that provides the only source of video programming for millions of people who cannot afford or do not have access to subscription television.¹³⁸ The cable must-carry rules were the product of a detailed factual record—summarized in 21 legislative findings—drawn from more than 30,000 pages and more than a dozen hearings held over three years.¹³⁹ Because must-carry rules had come and gone in the decades preceding the Cable Act,¹⁴⁰ Congress was presented with comprehensive evidence about the relationship between carriage rules and the behavior of cable systems and the welfare of local television stations.

137. Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460 (codified at 47 U.S.C. §§ 534 and 535). The FCC has adhered, in one form or another, to the idea that cable systems should be required to carry broadcast signals since the early 1960s. *See Carter Mountain Transmission Corp. v. FCC*, 321 F.2d 359 (D.C. Cir. 1963), *aff’d* 32 FCC 459 (1962) (upholding prohibition on microwave import of distant television signals by a cable system based on potential adverse effects on local broadcasters unless local signals were carried and not duplicated); *see also* Laurence H. Winer, *Red Lion of Cable*, 15 CARDOZO ARTS & ENT. L.J. 1 (1997). In 1966, the FCC expanded must-carry rules to all microwave-fed cable systems and a year later to all cable systems. *See* Amendment of Parts 21, 74, and 91 to Adopt Rules and Regulations Relating to the Distribution of Television Broadcast Signals by CATV Systems and Related Matters, *Second Report and Order*, 2 F.C.C. 2d 725 (1966). In 1972, the FCC refined its must-carry rules to make them compatible with the newly adopted comprehensive rules for the cable industry. *See* Amendment of Part 74, Subpart K, of the Commission’s Rules and Regulations Relative to CATV Systems, *Report and Order*, 36 F.C.C. 2d 143 (1972). In 1984, the FCC adopted rules requiring cable operators to carry all local or significantly viewed broadcast signals without regard to cable capacity or program duplication. *See* 47 C.F.R. §§ 76.57-76.61 (1984). When those rules were held unconstitutional, *see Quincy Cable TV, Inc. v. FCC*, 768 F.2d 1434, 1440-43 (D.C. Cir. 1985), the FCC adopted an interim approach in 1986 that relied on an “A/B switch” to allow viewers to alternate between cable and broadcast programming and made other changes to reduce cable’s burden. *See* Carriage of Television Broadcast Signals by Cable Television Systems, *Report and Order*, 1 F.C.C.R. 864 (1986), *modified in part*, 2 F.C.C.R. 3593 (1987), *rev’d sub nom. Century Communications Corp. v. FCC*, 835 F.2d 292 (D.C. Cir. 1987), *cert. denied*, 486 U.S. 1032 (1988). These rules too were struck down, largely because there was insufficient evidence to support the asserted governmental interest—the protection of local broadcast stations from cable operators’ anticompetitive behavior. *See* *Century Communications Corp. v. FCC*, 835 F.2d 292 (D.C. Cir. 1987), *clarified*, 837 F.2d 517 (D.C. Cir. 1988) *cert. denied*, 486 U.S. 1032 (1988).

138. *Turner I*, 512 U.S. at 647.

139. *See* H.R. Rep. No. 862, 102d Cong. 1-5 (1992).

140. *See supra* note 137; *see generally* *United States v. Southwestern Cable Co.*, 392 U.S. 157, 165-66 (1968), *Quincy Cable TV v. FCC*, 768 F.2d 1434, 1438-43 (D.C. Cir. 1985), *cert. denied by Nat’l Ass’n of Broad. v. Quincy Cable TV*, 476 U.S. 1169 (1986).

The Supreme Court deferred to the fact-finding of Congress in upholding the Cable Act's must-carry rules in *Turner II*, but only after three years of litigation¹⁴¹ and a remand back to district court for more factual development "yielding a record of tens of thousands of pages" of evidence.¹⁴²

The Court in its initial decision held that the must-carry rules "impose burdens and confer benefits without reference to the content of speech"¹⁴³ and were therefore content neutral regulations.¹⁴⁴ As a result, the rules are analyzed under an intermediate scrutiny test,¹⁴⁵ under which content neutral regulations are upheld if they are narrowly tailored to further an important or substantial governmental interest¹⁴⁶ unrelated to the suppression of free speech.¹⁴⁷ The Court remanded the case, requiring that the government show "that the economic health of local broadcasting is in genuine jeopardy and in need of the protections afforded by must-carry."¹⁴⁸ The "substantial deference" afforded to Congress's predictive judgments would not, the Court warned, foreclose independent judicial judgment of whether the must-carry provisions were supported by "reasonable inferences based on substantial evidence."¹⁴⁹

A majority of five ruled in *Turner II* that the must-carry requirements survived intermediate scrutiny. They were valid regulations narrowly tailored to serve the important and content-neutral governmental interests in "(1) preserving the benefits of free, over-the-air local broadcast television, (2) promoting the widespread dissemination of information from a multiplicity of

141. On a direct appeal from the United States District Court of the District of Columbia, the Supreme Court had vacated and remanded the case for factual development of the record. See *Turner I*, 512 U.S. at 668.

142. *Turner Broad. v. FCC*, 910 F. Supp. 734, 755 (D.C. 1995) (granting summary judgment for the government).

143. *Turner I*, 512 U.S. at 643.

144. *Id.* at 642 ("[T]he 'principal inquiry in determining content neutrality . . . is whether the government has adopted a regulation of speech because of [agreement or] disagreement with the message it conveys.'" (quoting *Ward v. Rock Against Racism*, 491 U.S. 781, 791 (1989))).

145. See *United States v. O'Brien*, 391 U.S. 367 (1968).

146. The interests identified by the court were: "(1) preserving the benefits of free, over-the-air local broadcast television, (2) promoting the widespread dissemination of information from a multiplicity of sources, and (3) promoting fair competition in the market for television programming." *Turner I*, 512 U.S. at 662.

147. See *id.*

148. *Id.* at 664-65.

149. *Id.* at 666. In *Turner II*, the Court did not refer to courts' independent judgment, but it did rely on the lower court findings of fact, in addition to legislative findings, in deciding the case. See Note, *Deference to Legislative Fact Determinations in First Amendment Cases After Turner Broadcasting*, 111 HARV. L. REV. 2312 (1998).

sources, and (3) promoting fair competition in the market for television programming.”¹⁵⁰ Justice O’Connor, joined by three other justices, dissented from both *Turner* opinions. In the first case, she wrote that the must-carry provisions were content-based because they favored the transmission of local broadcast content over other content, and therefore should be subject to strict scrutiny.¹⁵¹ In the second case, she wrote that the provisions failed even intermediate scrutiny.¹⁵² The *Turner II* dissent further contested that a majority even existed for the proposition that the must-carry rules were content-neutral. Justice Breyer’s concurrence, which provided the fifth vote, suggested that the content of local broadcast stations was relevant to Congress’ adoption of must-carry rules. Therefore, the dissent argued, the rules should have been strictly scrutinized as content-based regulation.¹⁵³

2. DBS “Must-Carry”

DBS, which was licensed in the mid-1990’s, provides cable-like services from satellites and competes head-on with cable in most markets.¹⁵⁴ Once DBS was able to transmit local signals, from both a technical and legal standpoint, it was likely that DBS would pose the same threat to local broadcasting as cable did. However, when it came time to address must-carry rules for DBS, the government took a very different approach than it had with cable. It shifted from direct regulation to a subsidy with strings in attempting to safeguard the local broadcasting system.

150. *Turner Broad. Sys. v. FCC*, 520 U.S. 180 (1997) (“*Turner II*”) (quoting *Turner I*, 512 U.S. at 662). Only a plurality based its decision on all three government interests. The majority considered only the government’s interests in preserving the free, over-the-air local broadcast television system and promoting the widespread dissemination of information from a multiplicity of sources as substantial government interests.

151. *See Turner I*, 512 U.S. at 676-77, 680-82 (O’Connor, J. dissenting).

152. *See Turner II*, 520 U.S. at 229 (O’Connor, J. dissenting).

153. *See id.* at 234. Justice Breyer rejected the plurality’s reliance on the statute’s efforts to promote fair competition between broadcasting and cable, but rather rested on the two other objectives of preserving local broadcast television and promoting a multiplicity of information sources. *See Turner II*, 520 U.S. at 226-28 (Breyer, J. concurring).

154. The first DBS customers were in rural areas where cable did not penetrate. *See Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming, Sixth Annual Report*, 15 F.C.C.R. 978, 1016 (2000). However, by the time must-carry rules were considered, DBS was competing with cable in the urban and suburban markets. By 2000, the DBS industry had almost 13 million subscribers, representing more than 15% of households subscribing to a multichannel video service. *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Seventh Annual Report*, 16 F.C.C.R. 6005, 6037 (2001).

This shift can be explained both by *Turner I* and by the different histories and structures of cable and DBS.

Given the high burdens of proof *Turner I* imposed on the government, Congress might well have been gun-shy to adopt must-carry rules for satellite via direct regulation. This is particularly true because the threat DBS posed to local broadcasting was even more speculative than the threat of cable.¹⁵⁵ Since DBS had never before carried local broadcasting signals, and there had been no on-again, off-again history of must-carry in the satellite context, there were no data about the impact of non-carriage on the local broadcast system. There was thus no independent factual record that DBS must-carry rules were necessary to preserve access to broadcast signals. Even if there had been such a record, the lukewarm response of the *Turner* cases to such a record could hardly have given the government much comfort.

The functional differences between cable and satellite provided another reason to approach DBS must-carry differently. The starkest difference was that cable must-carry rules applied to an industry that had been retransmitting local broadcast signals—indeed to an industry that was built on the retransmission of such signals—for decades. Since 1976, the cable industry enjoyed a statutory license enabling systems to retransmit local television broadcast signals without having “to negotiate with every copyright owner whose work was retransmitted”¹⁵⁶ and without

155. Professor Stuart Benjamin has written about the difficulty Congress has in legislating on the basis of predictive harms, especially in the communications area, and argues that any such legislation affecting First Amendment rights should be presumptively invalid unless there is a likelihood of irreparable harm. See Stuart Minor Benjamin, *Proactive Legislation and the First Amendment*, 99 MICH. L. REV. 281 (2000).

156. H.R. REP. NO. 94-1476, at 89 (1976). The cable statutory license is codified at 17 U.S.C. § 111(c) (2000). The adoption of this license was part of the general revision of the copyright laws in 1976. Prior to this revision, cable companies had transmitted local broadcast signals without any copyright liability because the courts had held that retransmission of a broadcast signal without permission was not a copyright violation. See, e.g., *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390 (1968). With the 1976 Copyright Act amendments, Congress clarified that owners of a copyright in an audiovisual work have the exclusive right to perform or display the work publicly, or to authorize a public display or performance of the work. 17 U.S.C. §§ 106(4), (5) (2001). As a result, cable operators would be subject to copyright liability for the retransmission of broadcast signals. See 17 U.S.C. §§ 111(d), (f) (2001); H.R. REP. NO. 94-1476, at 89 (1976) (“cable systems are commercial enterprises whose basic retransmission operations are based on the carriage of copyrighted program material and . . . copyright royalties should be paid by cable operators to the creators of such programs.”). But Congress also concluded that a compulsory license would be desirable to reduce the transaction costs for cable systems that otherwise would have to obtain authorization from each owner of

having to pay any copyright royalties. Cable had enjoyed a compulsory copyright license to transmit broadcast stations for sixteen years before must-carry rules took hold.¹⁵⁷

Whereas cable's right to transmit local signals preceded the duty to carry them, for DBS, the right and the duty were considered simultaneously. The DBS industry was launched in the 1980's as a national subscription television alternative to cable. DBS was unable, until recently, to carry local stations into local markets. This is because DBS satellites covered the entire nation and lacked the capacity they would have needed to transmit every local station into *every* market and then to block access to non-local signals in any given market. Rather than transmit local stations into local markets, DBS operators carried a few broadcast stations from large markets on their systems nationwide, and for this they obtained a compulsory copyright license in 1988.¹⁵⁸ In the mid-1990's, DBS operators began to develop the capacity to target local signals into local markets. Industry representatives told Congress that unless they had a compulsory license to transmit these local signals, notwithstanding the grow-

a copyright in each of the programs contained in the broadcast—a task Congress concluded “would be impractical and unduly burdensome.” H.R. REP. NO. 94-1476, at 89 (1976).

157. The Copyright Act of 1976 provided for a compulsory license for secondary transmission by cable companies. See 17 U.S.C. § 111(d) (2001) (codifying Copyright Act of 1976 as amended). Over the next sixteen years, until the passage of the Cable Act in 1992, the FCC attempted to craft must-carry rules, but in each instance, the rules were struck down by lower courts. See *Quincy Cable TV, Inc. v. FCC*, 768 F.2d 1434 (D.C. Cir. 1985) (striking down FCC must-carry rules because the FCC failed to prove a substantial governmental interest and the rules were overbroad); see also *Century Communications Corp. v. FCC*, 835 F.2d 292 (D.C. Cir. 1987) (striking down FCC rules that were revised after *Quincy*). Accordingly, must-carry did not stick to cable until the Cable Act and the *Turner* cases.

158. The 1988 Satellite Home Viewer Act, Pub. L. No. 100-667, §202(2), 102 Stat. 3949 (1988) (codified at 17 U.S.C. §119(a)(2)) provided DBS operators with a compulsory copyright license to retransmit the signals of network broadcast stations, but only in such a way that would not trench on the local network-affiliate's audience. The license permitted the distribution of non-local (or distant) broadcast stations, upon payment of a royalty to the Copyright Office, to “unserved” households a feed to those households that could not receive an acceptable over-the-air signal from their local network affiliates with a roof-top antenna. By claiming that the majority of their subscribers were unserved, satellite carriers used the compulsory license to serve a large number of subscribers, even those that could receive local broadcast signals over the air. Several district courts enjoined this activity, finding that transmitting distant broadcast signals to households that could in fact receive those signals over the air violated copyright law. See *ABC, Inc. v. Primetime 24 Joint Venture*, 67 F. Supp. 2d 558 (M.D.N.C. 1999), *aff'd*, 2000 WL 1648875 (4th Cir. Nov. 3, 2000) (unpublished table decision); *CBS Broad., Inc. v. Primetime 24 Joint Venture*, 48 F. Supp. 2d 1342 (S.D. Fla. 1998); *Echostar Communications Corp. v. CBS Broad.*, 265 F.3d 1193 (11th Cir. 2001), *cert. denied* 112 S. Ct. 1964 (U.S. May 20, 2002) (01-1450).

ing skepticism in general about compulsory licenses,¹⁵⁹ they would not be able to compete effectively with cable. According to DBS representatives, potential subscribers were not content to receive national programming packages over DBS while relying on a different means of reception (over-the-air or cable) to access local broadcast station signals.¹⁶⁰ For DBS to compete effectively, they said, it had to have a compulsory license along the lines of cable's license.¹⁶¹

The request of the DBS industry for a compulsory license to carry local broadcast signals raised the issue of must-carry. Concerned that DBS would be able to cherry-pick the most desirable

159. Compulsory copyright licenses are an extremely rare intrusion by the government into the marketplace for copyrighted material. See U.S. Copyright Office, *A Review of the Copyright Licensing Regimes Covering Retransmission of Broadcast Signals*, at iv (1997) [hereinafter *Copyright Office Report*] ("Compulsory licenses are an exception to the copyright principle of exclusive ownership for authors of creative works, and, historically, the Copyright Office has only supported creation of compulsory licenses when warranted by special circumstances."). In fact, prior to the enactment of SHVIA, there were only five compulsory copyright licenses in existence: See Act of March 4, 1909, ch. 320(e), 35 Stat. 1075 (1909), *superseded by* 17 U.S.C. § 115 (2001) (phonograms); 17 U.S.C. § 118 (2001) (public broadcast use of music and works of art); 17 U.S.C. § 111 (2001) (cable retransmission of local broadcasts); 17 U.S.C. § 119 (2001) (satellite retransmission of distant broadcast signals); 17 U.S.C. § 114(d)(2), (f)(4) (2001) (noninteractive digital transmissions of sound recordings). The Copyright Office generally believes that "the better solution when an industry seeks to make use of large numbers of copyrighted works is through negotiation between collectives representing the owner and user industries, rather than by a government administered compulsory license." *Copyright Office Report*, at iv.

[A]s early as 1981, the Copyright Office had recommended the elimination of the cable compulsory license and full copyright liability for cable systems' retransmission of distant signals, based on a finding that the cable industry had progressed from an infant industry to a vigorous, economically stable industry which no longer needed the protective support of the compulsory license.

Id.

160. See, e.g., *Copyright Compulsory License Improvement Act: Hearing Before the Courts and Intellectual Prop. Subcomm. of the House Judiciary Comm.*, 106th Cong. 33 (1999) (statement of David Moskowitz, Senior Vice President and General Counsel, EchoStar Communications Corp.) ("[M]ost of the people who walk into a satellite dealer's showroom turn around and walk out because they can't get their local TV channels through DBS."); *Video Competition: Multichannel Programming: Hearing Before the Telecomm., Trade, and Consumer Protection Subcomm. of the House Commerce Comm.*, 105th Cong. 44 (1998) (statement of Eddy W. Hartenstein, President, DIRECTV, Inc.) ("It is uneconomical for consumers who wish to receive only their local broadcast channels via cable and the rest of their programming via DBS or another alternate provider to do so when they are required to pay more than \$20 per month for basic cable.").

161. See, e.g., *Copyright Licensing Regimes Covering Retransmission of Broad. Signals: Hearing Before the House Subcomm. on Courts and Intellectual Prop.*, 105th Cong. 42 (1997) [hereinafter *House Hearing (1997)*] (statement of Steven J. Cox, Senior Vice President, DIRECTV, Inc.) ("[T]he satellite license needs to be revised so as to place DBS providers on a more equal footing with their cable competitors, who currently drive [sic] competitive advantages from the terms of the cable compulsory license.").

broadcast programming, representatives of the cable industry contended that “there would be no parity of treatment under either the copyright or the communications laws” unless must-carry obligations went along with a satellite compulsory license.¹⁶² In addition, the broadcast industry claimed that a compulsory license without must-carry requirements would allow DBS operators to pick winning and losing broadcast stations in each market, thereby undermining the objectives of the cable must-carry rules.¹⁶³

Congress, by adopting SHVIA, attempted to balance the DBS industry’s desire for a compulsory license to transmit local broadcast signals into local markets with the cable industry’s desire for regulatory parity, as well as the broadcast industry’s desire for must-carry requirements. It did so by conditioning a DBS operator’s use of the compulsory license in any given market on its carriage of local broadcast signals. The hope was that the license would promote competition between DBS and cable providers, while the constraints on the license would preserve the structure of local broadcasting.¹⁶⁴ The compulsory license, Section 122 of Title 17, authorizes DBS providers to deliver local television broadcast station signals to subscribers in the stations’ local markets without paying any royalty fee to the owners of copyrights in the programming transmitted in such signals.¹⁶⁵ Satellite carriers that transmit local broadcast signals pursuant to the Section 122 compulsory license were required, with certain exceptions, to “carry upon request the signals of all television broadcast stations located within the local market” beginning January 1, 2002.¹⁶⁶

The particular design of SHVIA was meant to account for the “practical differences” between cable and satellite by al-

162. *Id.* (statement of Decker Anstrom, President and CEO, National Cable Television Ass’n). *See also id.* at 32 (statement of Senator Kohl) (Satellite providers should have “obligations roughly analogous to those imposed on cable television.”).

163. *See, e.g., Copyright Licensing Regimes Covering Retransmission of Broad. Signals (Part II): Hearing Before the House Subcomm. on Courts and Intellectual Prop.*, 105th Cong. 6 (1998) [hereinafter *House Hearings (1998)*] (statement of James J. Popham, Vice President and General Counsel, Ass’n of Local Television stations) (carriage requirements “are critical to ensure that [satellite transmissions of local signals] enhances rather than undermines local over the air broadcasting.”).

164. Congress’s legislative goals were two-fold: (1) to level the competitive playing field between cable and satellite, see H.R. Rep. No. 106-79, pt. 1, at 11 (1999); and (2) to preserve free over-the-air television for all Americans, even as an increasing number of Americans receive local broadcast signals via cable or satellite. *See* H.R. Conf. Rep. No. 106-464, at 101 (1999) [hereinafter *Conference Report*].

165. *See* Pub. L. No. 106-113, § 1002, 113 Stat. 1501, 1501-23 (1999) (codified at 17 U.S.C. § 122).

166. 47 U.S.C. § 338(a)(1), (g) (2001).

lowing a satellite carrier to choose whether to incur any must-carry obligations in a particular market in exchange for the benefits of the statutory license.¹⁶⁷ Thus, according to the FCC's order implementing SHVIA, a satellite carrier has two options for carrying local broadcast signals in any given market:

If a satellite carrier provides its subscribers with the signals of local television stations through reliance on the statutory copyright license, they will have the obligation to carry all of the commercial [and some of the noncommercial] television signals in that particular market that request carriage. If a satellite carrier provides local television signals pursuant to private copyright arrangements, the Section 338 carriage obligations do not apply.¹⁶⁸

The choice given to the satellite carriers reflects the bargain struck between the DBS industry and Congress and negotiated out with competing industries. Operators would agree to carry all local broadcast content in a given market in return for the ability to carry the local broadcast content they wanted royalty free. DBS operators remain free to carry no local broadcast signals in any or all markets. They also remain free to carry the local signals of their choice if they negotiate for the copyrights in the market. It is only if they take advantage of the subsidy conferred by the compulsory license that they are under any obligation to carry local broadcast signals and then only in those markets in which they use the compulsory license.

B. Is SHVIA a Speech Subsidy?

In adopting SHVIA, Congress bid for a relaxed standard of judicial review by explaining that SHVIA was a government speech subsidy and that the must-carry provisions were nothing more than a limitation of the subsidy. The Conference Report explains:

[T]he must carry provisions of this Act neither implicate nor violate the First Amendment. Rather than requiring carriage of stations in the manner of cable's mandated duty, this Act allows a satellite carrier to choose whether to incur the must carry obligation in a particular market in exchange for the benefits of the local statutory license. It does not deprive any programmers of potential access to carriage by satellite carri-

167. H.R. Conf. Rep. No. 104-464, at 92 (1999).

168. Implementation of the Satellite Home Viewer Improvement Act of 1999: Broad. Signal Carriage Issues, Retransmission Consent Issues, *Report and Order*, 16 F.C.C.R. 1918, 1926 (2000).

ers. Satellite carriers remain free to carry any programming for which they are able to acquire the property rights. The provisions of this Act allow carriers an easier and more inexpensive way to obtain the right to use the property of copyright holders when they retransmit signals from all of a market's broadcast stations to subscribers in that market. The choice whether to retransmit those signals is made by carriers, not by the Congress. The proposed licenses are a matter of legislative grace, in the nature of subsidies to satellite carriers, and reviewable under the rational basis standard.¹⁶⁹

Even as a specimen of legislative grace, does SHVIA really operate in much the same way as a conventional speech subsidy in the form of a monetary government grant? SHVIA looks very different from the subsidies in the leading subsidized speech cases, which have involved the exercise of Congress' spending power to grant cash subsidies or taxing power to grant tax deductions.¹⁷⁰ SHVIA, by contrast, relies on the government's powers, under the Commerce Clause, to regulate interstate communications and under the Copyright Clause, to define the scope of the rights of copyright holders.¹⁷¹ While the typical subsidized speech case involves a transfer of wealth in the form of cash from the public to the subsidized parties, SHVIA involves a transfer of wealth in the form of an exemption from copyright liability from the copyright owners to the DBS operators.¹⁷² The question is

169. *Conference Report, supra* note 164, at H11795. The Conferees also noted that they were "confident that the proposed license provisions would pass constitutional muster even if subjected to the *O'Brien* standard applied to the cable mandatory carriage requirement." *Id.*

170. *See, e.g.,* *Legal Servs. Corp. v. Velazquez*, 531 U.S. 533 (2001) (lawyers); *Nat'l Endowment for the Arts v. Finley*, 524 U.S. 569 (1998) (artists); *Rust v. Sullivan*, 500 U.S. 173 (1991) (subsidy to doctors); *FCC v. League of Women Voters of Cal.*, 468 U.S. 364 (1984) (public broadcasters); *Regan v. Taxation With Representation*, 461 U.S. 540 (1983) (non-profit organization). Other subsidies have dealt with federal employment. *See, e.g.,* *Perry v. Sindermann*, 408 U.S. 593 (1972); *O'Hare Truck Serv., Inc. v. City of Northlake*, 518 U.S. 712 (1996).

171. *See Sony Corp. of America v. Universal City Studios*, 464 U.S. 417, 429 (1984) (stating that the Constitution has assigned to Congress the task of defining the scope of copyright protection); *see also Goldstein v. California*, 412 U.S. 546, 562 (1973).

172. A district court has decided that differences between cash and other subsidies do matter. *Satellite Broad. & Communications Ass'n v. FCC*, 146 F. Supp. 2d 803, 816 (E.D. Va. 2001) ("*SBCA*"), *aff'd*. 275 F.3d 337, and *cert. denied*, 122 S. Ct. 2588 (U.S. June 17, 2002) (No. 01-1332). The court dismissed a First Amendment challenge to SHVIA on a motion to dismiss under the *Turner/O'Brien* standard of intermediate scrutiny. The court did not dispute that SHVIA confers a benefit on DBS operators. However, drawing on a dictionary definition of subsidy, the court concludes that SHVIA is not a "subsidy" because it "does not entail the grant of government funds, or other benefits obtained through the use of government funds (i.e., property, government-created jobs, etc.), to confer a benefit." *Id.* at 829.

whether these differences between SHVIA and the traditional subsidies render SHVIA a speech-reducing regulation rather than a speech-enhancing subsidy.¹⁷³ The decision to treat a government intervention as a subsidy or regulation is significant in terms of judicial review. Speech-supporting subsidies, as we have seen, are not subjected to the presumption of invalidity that attaches to speech-restricting regulations. Moreover, the treatment of government action as speech-supporting rather than regulatory relieves the government of having to satisfy the intensively fact-based and stringent review called for by the *Turner* cases. This relief could be particularly welcome for a government that is enacting proactive legislation against speculative harms in a rapidly changing technological environment.

1. Regulations vs. Subsidies

The central inquiry in the subsidized speech area is whether the government can claim that the burdens it places on speech

Rather, the court classified SHVIA as a license, which is defined as “[t]he permission by competent authority to do an act which, without such permission, would be illegal, a trespass, a tort, or otherwise not allowable.” *Id.* at 829.

The Fourth Circuit affirmed the district court’s decision, without any discussion of the subsidy question. *See* *Satellite Broad. & Communications Ass’n of Am., et al. v. FCC*, 275 F.3d 337 (4th Cir. 2001). On appeal, the court noted that because the obligations SHVIA imposes are not triggered until the provider avails itself of the compulsory license, the obligations are content neutral. *Id.* at 354. Moreover, the court agreed that the purpose behind SHVIA—namely, the desire to promote localism through the survival of independent broadcast stations—was indistinguishable from the issue in *Turner I*, and therefore the same level of scrutiny must apply. *Id.* at 354-55. The Fourth Circuit found that the obligations under SHVIA did not burden substantially more speech than was necessary to serve the government’s legitimate interests and, therefore, the provisions were valid under the *O’Brien* test. *Id.* at 366.

173. There is another way in which SHVIA differs from the subsidies at issue in the leading subsidized speech cases. In most of those cases, the government was inducing action—the creation of “decent” art or the avoidance of abortion counseling—that it *clearly* could not have compelled. In SHVIA, whether or not the government could compel the local broadcast signal carriage that it seeks to induce is a murkier question of law (depending on the appropriate level of scrutiny) and fact (depending primarily on the extent of the burden of carriage on the satellite carriers and the regulatory alternatives at the government’s disposal). Under these circumstances, there is substantial economy in first considering whether the conditions attached to the subsidy are coercive. If the answer is no, the law is upheld without a protracted discovery process during which time technology continually remakes the facts and the satellite industry invests in the capabilities to carry local signals that may not be required. If the answer is yes, only then need the court go on to the question of whether or not the conditions, now viewed as regulations, are constitutional. For a good discussion of how quickly technology developments outstrip the process of judicial review, see Stuart M. Benjamin, *Stepping into the Same River Twice: Rapidly Changing Facts and the Appellate Process*, 78 *TEX. L. REV.* 269 (1999).

simply serve to define the limits of the benefits it is offering. As we have seen, the unconstitutional conditions literature and cases have not really focused on the threshold question of what defines a benefit, but on the secondary question of whether the denial of a benefit operates as a penalty rather than a non-subsidy. At the threshold level, the doctrine only distinguishes “direct state interference with a protected activity and state encouragement of an alternative activity consonant with legislative policy.”¹⁷⁴ The Court has contrasted federal regulatory programs with federal subsidy programs, noting, “[t]here is a basic difference between [the two].”¹⁷⁵ Regulations directly restrict speech while subsidies do not, unless the subsidy is “manipulated to have a coercive effect.”¹⁷⁶

This subsidy/regulation distinction serves to distinguish “I’ll pay you to say x” from “Say x or I’ll put you in jail.” But it does not distinguish the distribution of cash subsidies from non-cash subsidies like: “I’ll give you this broadcast license if you’ll say x” or “I’ll extend your copyright term if you’ll say x.” The subsidy/regulation distinction the Court has drawn focuses solely on whether or not there is a conditional grant of a benefit or an unconditional exercise of government power. Under this binary approach, the SHVIA compulsory license is clearly a subsidy, rather than a regulation, in that it is conditional and does not directly regulate speech. SHVIA, like a monetary subsidy, is a speech benefit that Congress is not constitutionally required to provide and attaches conditional speech burdens that recipients are free to reject.

The shortcoming of this approach is that this definition of “subsidy” would seem to encompass too much. Government “regulation” of private speech through the copyright law and communications law is almost always achieved through licensing. The operation of most media of mass communications requires government permission in such forms as a broadcast license, a DBS license, or a cable franchise. While the Internet is unlicensed, the means to access the Internet, through wires, cables, or by wireless means, require some kind of government license or permit.¹⁷⁷ All of these licenses and permits are conditional on com-

174. Kreimer, *supra* note 59, at 1316 (quoting *Maher v. Roe*, 432 U.S. 464, 475-76 (1977)).

175. *Maher*, 432 U.S. at 475.

176. *Nat’l Endowment for the Arts v. Finley*, 524 U.S. 569, 587 (1998) (internal quotation omitted).

177. Even access to the Internet through a WiFi or other unlicensed network usually relies on licensed wireless or wired operators to complete the connection to the Internet backbone.

pliance with applicable federal or state and local rules and regulations. For any service where the licensee has not paid full market value (e.g. for its spectrum license¹⁷⁸ or its use of public rights of way),¹⁷⁹ the licenses and permits are government benefits and the licensee's obligations could be recast as conditions of their license.¹⁸⁰ Since courts will more readily approve conditions attached to benefits than they will regulations, the government could avoid more exacting First Amendment scrutiny by ensuring that the burdens it places on speech are part of a discretionary speech-related license or other non-monetary benefit.

Must we not, then, consider whether there is an antecedent question, one largely ignored by the Court¹⁸¹ and by the commen-

178. Congress granted the FCC the right to auction spectrum licenses in 1993. See Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, 6002, 107 Stat. 312, 387-92 (codified at 47 U.S.C. § 309(j) (2000)). All the licenses issued prior to this date, such as to DBS operators and broadcasters, were not auctioned. The law currently forbids the use of auctions in a number of circumstances, such as for the provision of broadcasting by incumbents or international satellite services. See Telecomms. Act of 1996, Pub. L. No. 104-104, § 204(a), 110 Stat. 56; 47 U.S.C. § 309(k) (2000) (providing for renewal of broadcast licenses); Open-Market Reorganization for the Betterment of International Telecommunications Act ("ORBIT Act") of 2000 § 647, 47 U.S.C. § 765f (2000) (preventing FCC from having authority to conduct competitive bidding for orbital locations or spectrum). The FCC has the freedom to provide bidding credits to certain parties (such as small businesses), see 47 U.S.C. § 309(j)(4)(D) (2000), and has significant flexibility in structuring its auctions. Any profit from the auction (that is, revenue over the cost of administering the auction), however, goes straight to the U.S. Treasury and cannot be earmarked by the FCC for communications-related projects. See *id.* at § 309(j)(8)(A).

179. Public rights of way are licensed by state authorities in the case of telephone wires and local authorities in the case of cables. See Telecomms. Act of 1996, Pub. L. No. 104-104, § 253(c), 110 Stat. 56; 47 U.S.C. § 253 (2000) (preserving the rights of state and local authorities to manage public rights-of-way and to require fair and reasonable compensation from telecommunications providers that use those rights-of-way); see also *City of Los Angeles v. Preferred Communications, Inc.*, 476 U.S. 488 (1984) (addressing city's refusal to grant cable system access to poles or underground conduits). While administrative or franchising fees are levied, these rights of way are not sold.

180. The D.C. Circuit has upheld the requirement that DBS operators devote a portion of their capacity to educational programming, analyzing it under the *Red Lion* relaxed standard. *Time Warner Entm't Co. v. FCC*, 105 F.3d 723 (D.C. Cir. 1997). This requirement might just as readily have been justified as a condition of the benefit of a license. See, e.g., *id.* at 724-25 (Williams, J., dissenting from denial of rehearing *en banc*) (acknowledging that there was an argument to be made that DBS public interest requirements might be justified as a condition of the grant of a license to use federal spectrum). A former FCC Chairman, Reed Hundt, has casually suggested that broadcast obligations could be viewed in the same way. See, e.g., Reed E. Hundt, *The Public's Airwaves: What Does the Public Interest Require of Television Broadcasters*, 45 DUKE L.J. 1089 (1996). See also Charles Logan, *Getting Beyond Scarcity: A New Paradigm For Assessing the Constitutionality of Broadcast Regulation*, 85 CAL. L. REV. 1687, 1730-46 (1997).

181. For example, a recent article discussing the unconstitutional conditions doctrine in the federalism context notes that it is unclear how the Court would analyze

tary,¹⁸² of what kinds of discretionary speech supports qualify as a “subsidy” for the subsidized speech analysis?

2. Cash vs. Non-Cash Benefits

A cash/non-cash distinction provides an appealing way to limit the class of benefits that would qualify for the “subsidized speech” analysis.¹⁸³ When it gives out cash grants to support artists, civil lawyers or family planning counselors, the government is acting in its capacity of patron, not regulator. The beneficiaries of the government’s largess have, as a baseline, no constitutional, statutory or other right to receive the cash, and they are better off with the grant, notwithstanding the strings that may be attached.¹⁸⁴ But does an exemption from copyright

the question of whether or not the federal government may condition enforcement of the federal copyright law (that is, a non-monetary benefit) on state waiver of sovereign immunity. See Mitchell N. Berman et al., *State Accountability for Violations of Intellectual Property Rights: How to “Fix” Florida Prepaid (and How Not to)*, 79 TEX. L. REV. 1037, 1151 (2001).

182. Kathleen Sullivan, for example, answers the question “What government benefits give rise to unconstitutional conditions problems?” by answering simply “Those benefits that government is permitted but not compelled to provide. In our current constitutional order, this category includes most government benefits, as the Court has taken a broad view of permissible redistribution and a narrow view of affirmative government obligations.” Sullivan, *supra* note 59, at 1422. She does not go on to propose any method to distinguish some discretionary government activity, such as issuing permits, creating private rights of action, creating exemptions from the law, or enforcing the law, from the granting of cash subsidies. This is typical.

183. See *Satellite Broad. & Communications Ass’n v. FCC*, 146 F. Supp. 2d 803, 823 (E.D. Va. 2001) (“SBCA”), *aff’d*, 275 F.3d 337, *and cert. denied*, 122 S. Ct. 2588 (U.S. June 17, 2002) (No. 01-1332). In the Tenth Amendment context, the fact that a federal government subsidy emanates from the government’s Spending Clause, rather than Commerce Clause, power is significant. This is because the Spending Clause provides the federal government with the power to act upon the states when it lacks such power under the Commerce Clause. See *South Dakota v. Dole*, 483 U.S. 203, 207 (1987) (“[O]bjectives not thought to be within Article I’s ‘enumerated legislative fields’ may nevertheless be attained through the use of the spending power and the conditional grant of federal funds.”); see also *United States v. Butler*, 297 U.S. 1, 66 (1935) (for the first time announcing that the Spending Clause allows Congress “to authorize expenditure of public moneys for public purposes [which] is not limited by the direct grants of legislative power found in the Constitution.”) (citation omitted). Thus, the fact that the government acted pursuant to its Spending power answers the question of whether or not the government had the affirmative power to act in light of the Tenth Amendment limitations on that power (or, put another way, the Tenth Amendment’s restatement that the federal government is a government of enumerated powers). By contrast, in the First Amendment context, the question is not about whether or not the government has the affirmative authority to act, but whether that action violates an independent constraint on government power.

184. Professor Frederick Schauer has labeled government-funded speech as “government enterprise.” He contrasts the First Amendment issues that arise in government enterprise cases to classic First Amendment cases. In the former, the government burdens speech supported by its own resources. In the latter, the

liability really act any differently? In the pre-SHVIA world, DBS operators had to obtain copyright licenses to retransmit local broadcast station signals. They had no constitutional entitlement to transmit these signals at all, and certainly not free of charge.¹⁸⁵ By relieving DBS operators of the ordinary obligation to obtain copyright licenses, SHVIA provides a benefit that Congress is under no constitutional obligation to grant and that DBS operators have no right to expect. The operation of SHVIA, in this sense, is very similar to cash subsidies in the form of arts grants or legal services funding, which are also constitutionally optional benefits to which the recipients are not entitled.

It might be argued that the baselines for SHVIA beneficiaries and cash grant beneficiaries are meaningfully different with respect to the recipient's alternatives. The recipient of a cash payment from the government's support of an activity (*e.g.*, exclusively pro-life speech) has the legal right to engage in the activity without the government's intervention, whereas the DBS operators do not have the legal right to retransmit broadcast programming on a royalty-free basis in the absence of a compulsory copyright license. However, this is simply to state that a benefit in the form of cash adds a positive, while a benefit in the form of a license removes a negative. In this respect, the license acts much like a tax exemption – otherwise known as a “tax expenditure” – which the Court has determined to be the functional

speech burdens attach to speech supported by the speaker's resources. *See* Schauer, *supra* note 53. It is clear where cash subsidies fit under this scheme, but less clear where non-cash benefits fit, particularly where granting of the benefit imposes a monetary opportunity cost on the government. The distinction does not help us to distinguish cases in which the government is engaged in enterprise (through its spending powers) from those in which the government is dispensing some other kind of benefit (through its regulatory powers). When my speech is supported by a spectrum license for which I have not paid full value, is my speech supported by the government or by myself? It is some combination of the two.

185. The courts have unequivocally held that there is no First Amendment right to violate copyrights. *See* *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 556 (1985) (holding that a magazine's advance publication of excerpts from the memoirs of Former President Gerald Ford infringed the copyright thereon on the grounds that copyright's idea/expression dichotomy “strikes a definitional balance between the First Amendment and the Copyright Act by permitting free communication of facts while still protecting an author's expression”); *United Video, Inc. v. FCC*, 890 F.2d 1173, 1191 (D.C. Cir. 1989) (rejecting First Amendment challenge to FCC regulations that allow a syndicated television program supplier to agree to allow the program to be broadcast exclusively by a single station in a local broadcast area on the grounds that there is “no first amendment right . . . to make commercial use of the copyrighted works of others.”); *Eldred v. Reno*, 239 F.3d 372 (D.C. Cir. 2001) (rejecting First Amendment challenge to blanket copyright term extensions), *cert. granted sub nom.*, *Eldred v. Ashcroft*, 122 S. Ct. 1062 (U.S. Feb. 19, 2002) (No. 01-618).

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equivalent of a cash payment in the subsidized speech context.¹⁸⁶ If the salient feature of a license is that it permits what would otherwise be illegal activity, a tax exemption operates like a license in that it permits the non-payment of taxes, the payment of which would otherwise be required.

The only real difference between the copyright benefit and a cash subsidy,¹⁸⁷ a tax exemption,¹⁸⁸ or another non-cash benefit like government employment¹⁸⁹ is that a subset of taxpayers (the copyright owners) pays for the compulsory license benefit rather than the taxpayers at large.¹⁹⁰ The fact that a compulsory license effectuates a redistribution of benefits from copyright owners, rather than from the government, is unimportant to the question of whether or not SHVIA provides a benefit that is experienced by recipients as government largesse.¹⁹¹ The impact of the benefit on the recipients—the real focus of the unconstitutional conditions analysis—does not depend on whether or not the government provided a cash subsidy to pay for copyright roy-

186. See *Regan v. Taxation with Representation of Wash.*, 461 U.S. 540, 544 (1983) (“*TWR*”) (“Both tax exemptions and tax deductibility are a form of subsidy that is administered through the tax system.”). However, the Establishment Clause cases have found a constitutionally significant difference between tax exemptions (constitutionally unproblematic) and cash expenditures (problematic). See, e.g., *Walz v. Tax. Comm’n of City of N.Y.*, 397 U.S. 664 (1970) (holding that a tax exemption for church property does not violate the Establishment Clause as a subsidy would). The dormant Commerce Clause cases also distinguish between tax exemptions and cash subsidies, but find exemptions from generally applicable taxes to be more constitutionally problematic than are subsidies. See, e.g., *New Energy Co. of Ind. v. Limbich*, 986 U.S. 269 (1988).

187. See, e.g., *Legal Servs. Corp. v. Velazquez*, 531 U.S. 533 (2001) (subsidy to lawyers); *Nat’l Endowment for the Arts v. Finley*, 524 U.S. 569 (1998) (subsidy to artists); *Rust v. Sullivan*, 500 U.S. 173 (1991) (subsidy to doctors).

188. See, e.g., *TWR*, 461 U.S. at 540.

189. See, e.g., *Perry v. Sindermann*, 408 U.S. 593 (1972) (government may not condition public employment on refraining from criticizing college administration); *O’Hare Truck Service, Inc. v. City of Northlake*, 518 U.S. 712 (1996) (government may condition public employment on refraining from supporting opposition party when political affiliation is appropriate requirement for the job).

190. That the cash benefit was paid for by a subset of taxpayers—those in states that participated in the waste disposal program—did not make a difference in *N. Y. v. United States*, 505 U.S. 144 (1992).

191. A similar kind of “subsidy” is the following: Congress passes a law that individuals may, for the first time, sue their HMO’s for damages up to \$1.5 million. Twenty-five years later, Congress passes another law that lowers the damages cap to \$0.5 million for any HMO that abstains from advising patients on controversial cloning procedures. The HMO and its medical personnel may will claim that the speech-related conditions on the offer of reduced damages violates their First Amendment rights. The fact that the subsidy is a reduction in possible damages (a subsidy which the federal government does not pay for and which takes the form of relief from a pre-existing legal regime) does not make this case meaningfully different from *Rust*.

alties or provided an exemption from copyright royalty payments.

There is an intuitive appeal in limiting liberty-expanding subsidies to cash, which may appear to be easily refused without undue detriment.¹⁹² But the refusal of cash benefits, like food stamps¹⁹³ and unemployment benefits,¹⁹⁴ may reduce liberty to a much greater degree than the refusal of non-cash benefits, like the right to transmit programming on a royalty-free basis.¹⁹⁵ That is, in some cases, cash may more readily be viewed as an entitlement, the deprivation of which is felt as the heavy hand of government regulation.¹⁹⁶

192. See *Col. Sav. Bank v. Fl. Prepaid Postsecondary Ed. Expense Bd.*, 527 U.S. 666, 697 (1999) (Breyer, J. dissenting) (noting intuitive appeal of belief that “it is somehow easier for the State, and hence more voluntary, to forgo [federal beneficence] than to refrain from ‘otherwise lawful activity,’ or that it is somehow more compelling or oppressive for Congress to forbid the State to perform an ‘otherwise lawful’ act than to withhold ‘beneficence.’”).

193. See *Lyng v. Int’l Union*, 485 U.S. 360 (1988) (holding that statute making a household ineligible to participate in the food stamp program when any member of the household was on strike was rationally related to the legitimate governmental objective of maintaining neutrality in private labor disputes).

194. See *Sherbert v. Verner*, 374 U.S. 398 (1963) (holding that refusal to extend unemployment benefits where claimant refused to work on Saturday because of religious beliefs was an impermissible burden on the claimant’s constitutional right to the free exercise of her religion).

195. Justice Breyer, joined by Justices Stevens, Souter, and Ginsburg, in his dissent in *Col. Sav. Bank*, 527 U.S. 666 (1999), responded to the majority’s claim that a federal benefit to a state that consisted of allowing a state to engage in a particular form of interstate commerce on certain conditions was a more coercive offer than the grant of highway funds:

Given the amount of money at stake [more than \$20 billion in 1998], it may be harder, not easier, for a State to refuse highway funds than to refrain from entering the investment services business. It is more compelling and oppressive for Congress to threaten to withhold from a State funds needed to educate its children than to threaten to subject it to suit when it competes directly with a private investment company.

Col. Sav. Bank, 527 U.S. at 697 (Breyer, J., dissenting) (citation omitted).

196. This was certainly true in *Col. Sav. Bank*, in which the Court held that Congress, in the exercise of its commerce power, cannot require a state to waive its immunity from suit in federal court as a condition of being permitted to engage in otherwise legal activity (the investment services business). The Court drew a distinction between the threat of a sanction (or, in other words, the withholding of an entitlement) in *Col. Sav. Bank* from the threat of withholding a mere gratuity in *South Dakota v. Dole*, 483 U.S. 203 (1987). In *Dole*, Congress conditioned its grant of highway funds to a State on condition that the state adopt a minimum driving age—a demand Congress might not be able to impose through regulation. Because Congress has no obligation to disburse funds to the states, these funds are gifts, which can be conditioned upon the abdication of the states’ rights except under limited circumstances (which have not yet been identified). The *Col. Sav. Bank* majority accepted that the “intuitive difference” between a “denial of a gift” and a “sanction” might “disappear [] when the gift that is threatened to be withheld is substantial enough.” *Col. Sav. Bank*, 527 U.S. at 687.

Distinguishing benefits from entitlements and refusals to subsidize from penalties is a difficult exercise that depends on where one locates the baseline obligations of government.¹⁹⁷ It is an exercise that should not be short-circuited by drawing a bright line between benefits that involve cash and non-cash benefits. Moreover, it is hardly relevant from whence the government's power to offer the benefit comes, whether that is the Commerce, Copyright, Spending, or Tax Clause.¹⁹⁸ The essence of the benefit in unconstitutional conditions cases is not that it is cash or even that it is the government's cash,¹⁹⁹ but that it is a discretionary exercise of government power and it is optional for the recipient.

3. Reliance Interests

If the cash/non-cash distinction is not the right one, what is? Another possible distinction is a temporal one. For example, if the speech-burdening conditions are imposed at the same time as the benefit is dispensed, then the benefit is truly a subsidy because the recipient has not relied on receiving the benefit only to find that the benefit now has strings attached. By contrast, if the recipient has been enjoying the benefit without the speech burdens, then the imposition of speech-related conditions to the benefit after the fact might remove the "beneficial" quality of the benefit because the baseline has moved from the absence to the presence of an expectation. A distinction between subsidies and non-subsidies based on temporal considerations captures the same sense of fairness as many equitable doctrines, such as considering reliance interests in assessing damages for breach of contract.²⁰⁰

If we are to be guided by reliance interests, then SHVIA would qualify as a subsidy and many of the cash subsidies at issue in the subsidized speech cases would not. Because SHVIA creates a new benefit, the withholding of the benefit for refusal to comply with the attendant conditions is in an important sense

197. See generally Kreimer, *supra* note 59.

198. See, *infra*, note 204.

199. Whether or not speech is considered "government speech" has become important in the unconstitutional conditions cases, after *Velazquez*. But it is important for determining whether or not the conditions on the benefit are permissible, not for the threshold determination of whether or not there is a conditional benefit in the first place. Since the federal government uses non-federal funds as inducements, see, e.g., *N.Y. v. United States*, 505 U.S. 144 (1992) (waste disposal program), there is no reason to think it cannot use non-federal non-cash benefits as inducements.

200. See, e.g., Restatement (Second) of Contracts § 349 (1981) (discussing damages based on reliance interest).

less punitive, and thus less “regulatory,” than the withholding of cash subsidies on which a beneficiary has relied. The doctor who has for years received federal funds to support a full-service family planning service, but then feels obliged to decline those funds when they are attached to a “gag rule” against abortion will experience the loss of the subsidy as a punishment. The Court views the doctor’s decision to sacrifice the subsidy in favor of exercising her speech rights as a decision that places her in no worse a position than if the government had offered her no subsidy in the first place.²⁰¹ But the fact that the doctor has relied on federal funds *does* make her worse off when she refuses the grant.

By contrast, a DBS operator is no worse off for rejecting the SHVIA subsidy than it would have been had SHVIA never been enacted, except that it may suffer competitive disadvantage in comparison to operators that accept the subsidy. The DBS operator has not relied on the subsidy and has operated successfully without it.²⁰² A definition of subsidy that required the contemporaneous provision of the benefit and imposition of the burden would exclude many cash grants that are the clearest and least controversial examples of government subsidies, while including a benefit like SHVIA.

4. Government Monopoly

Perhaps the universe of government benefits that could be viewed as speech subsidies should be limited to those benefits over which the government is merely one of many possible providers. Cash would generally fall into this category.²⁰³ The artist

201. See *Rust v. Sullivan*, 500 U.S. 173 (1991).

202. The baseline in the case of SHVIA is critical to distinguishing the type of benefit it offers from other licenses, such as, for example, a permit to rally in the park. DBS operators, pre-SHVIA, could exercise their First Amendment rights by carrying all or no local broadcast signals in any market they chose, provided that they satisfied ordinary copyright obligations. They had no constitutional right to a compulsory copyright license. See *Schnapper v. Foley*, 667 F.2d 102, 114 (D.C. Cir. 1981) (the First Amendment does not require “judicial creation of a compulsory licensing scheme in derogation of the law of copyright as passed by Congress”). What SHVIA offers is a way to carry local broadcast signals much less expensively, subject to certain speech burdens. DBS operators do not need the SHVIA license to transmit the programming they want and may, if they choose, ignore the inducement of SHVIA to carry material they would otherwise refuse. By contrast, demonstrators must obtain the government’s permission to exercise their First Amendment rights of association and speech. If the demonstrators refuse a permit that is conditioned on the transmission of speech they dislike, they would be unable to exercise their First Amendment rights to demonstrate. The baseline in the park case is a constitutional entitlement to rally.

203. It is unrealistic to assume that cash grants, merely because they consist of cash, could actually be obtained through non-governmental sources. After all, states cannot realistically go to any other source to procure highway funds. See Lynn

or lawyer who refuses a federal government grant could, at least theoretically, turn to other public or private sources of funds. In contrast, there are no alternatives to the precise benefit SHVIA provides—relief from copyright liability. Distinguishing between benefits the government alone can dispense and those that might be available from private sources in constitutional interpretation captures the intuition that the government should have more leeway to conduct itself as a market participant than as a market referee.²⁰⁴ In the subsidized speech context, the argument would go, the government should have the benefit of the

Baker, *Conditional Federal Spending and States' Rights*, 574 ANNALS AM. ACAD. POL. & SOC. SCI. 104, 106-07 (2001) (discussing federal government monopoly over sources of state revenue). The subsidized speech cases contain only the most glancing discussion of the real life opportunities for the beneficiaries of federal funding to obtain alternative funds. *Velazquez* contains the most overt discussion of this point, noting that when an attorney withdraws, an indigent client is unlikely to find alternative representation. 531 U.S. 533, 546-47 (2001). The Court noted that this was in contrast to *Rust*, where the patient seeking abortion counseling funded by the government also “could consult an affiliate or independent organization.” *Id.* at 547.

204. This is a distinction that has been rejected in the federalism context. *See Col. Sav. Bank v. Fl. Prepaid Postsecondary Ed. Expense Bd.*, 527 U.S. 666, 686 (1999). In drawing his distinction between gratuities and entitlements in *Col. Sav. Bank*, Justice Scalia focused not on the nature of the benefit (that is, on whether the benefit flowed exclusively from the government as sovereign), but on the expectations of the beneficiary. Thus, because a state would normally expect to be able to participate in the investment services business without federal interference, the unconditional freedom to participate in that market is an entitlement. Contrast this, Justice Scalia said, with *Petty v. Tennessee*, in which government exercise of a more naked regulatory power against the states (the withholding of consent to an interstate compact unless the states waived sovereign immunity) was upheld. There, “the granting of such consent is a gratuity” even though the states depended entirely on the federal benefit to conduct their activity. *Id.* The fact that the benefit flows from the federal government’s regulatory, as opposed to spending, powers has not seemed important to the Court in the commandeering context either. In a case involving Congress’ power to induce states to adopt certain waste disposal regulations, for example, the Court upheld, as equivalent, Congress’ offer of funding to states that regulated radioactive wastes and Congress’ offer of free access to special disposal sites to states that did so. *See N.Y. v. United States*, 505 U.S. at 167-68. The one provision ruled invalid was not an incentive, but a direct regulation that compelled states to choose between two alternatives, neither one of which could be imposed directly. *Id.* at 149. *See also Nollan v. Cal. Coastal Comm.*, 483 U.S. 825 (1987), which dealt with the question of whether the state could condition the grant of a residential beachfront building permit on the surrender of a pedestrian easement for public passage between beaches, and can be viewed as a Fifth Amendment unconstitutional conditions case. There, the court struck down the condition because there was no nexus between the benefit (a building permit) and the condition (concession of property rights). However, the Court suggested that had the condition been more closely related to the benefit—had it involved, for instance, the creation of a public viewing spot in exchange for the right to block the view—the condition would have been permissible. Nowhere in this dicta did the Court suggest that the government had less latitude to condition grants of permits than it would to condition the grants of other kinds of benefits.

more deferential review when it is competing with other potential benefactors to influence the speech market.

Even if the distinction between core and extracurricular governmental activity were the right one for defining subsidies, it would be a mistake to differentiate too sharply between a compulsory copyright license and cash. A compulsory copyright license is unlike other licenses that the government dispenses, such as a license to practice law or to erect a building, in that those who receive the compulsory license can usually obtain the same benefit through other means, namely by licensing the rights from the copyright owners through a rights management system or through individual negotiations.²⁰⁵ A compulsory copyright license, while not a cash grant, has a discernable market value and results from government participation in a market to reduce the costs of a private actor.

Government licenses to use spectrum have a different, but related, character.²⁰⁶ Like recipients of cash grants and compulsory copyright licenses, the recipients of licenses to use spectrum for speech have no constitutional or other entitlement to the license.²⁰⁷ But unlike the beneficiaries of a compulsory copyright

205. The Copyright Office believes “that for licensing the copyrighted works retransmitted by cable systems and satellite carriers, the better solution is through negotiation between collectives representing the owner and user industries, rather than by a government administered compulsory license.” U.S. Copyright Office, *A Review of the Copyright License Regimes Covering Retransmission of Broad. Signals* at iv (Aug. 1, 1997), available at <http://www.copyright.gov/docs/study.pdf> (last visited Sep. 23, 2002). ASCAP already has a cable and satellite licensing program for music. See *ASCAP Cable and Satellite Licensing*, available at <http://www.ASCAP.com/licensing/tvcablesatellite.html> (last visited Sep. 23, 2002).

206. Broadcast regulation has long been treated, at least informally, as a “social compact” based on a “quid pro quo.” See Remarks of Rep. Edward Markey, Chairman, Subcommittee on Telecommunications and Finance, Broadcasting/Cable Interface VIII (Omni Shoreham Hotel, Washington, D.C., Oct. 4, 1994) (suggesting that broadcasters would not obtain legislation that liberalized ownership limits unless they supported the V-chip proposal), *quoted in* ZUCKMAN, ET AL., *supra* note 12, at § 15.4 n.84; see also Applications of Stockholders of CBS, Inc. and Westinghouse Elec. Corp., *Memorandum Opinion and Order*, 11 F.C.C.R. 3733 (1996) (newspaper-television ownership restriction waived after company agreed to provide specific amounts of children’s programming); Applications of Capital Cities/ABC, Inc. and the Walt Disney Co., *Memorandum Opinion and Order*, 11 F.C.C.R. 5841 (1996) (newspaper-television ownership restriction not waived because company did not agree to air specific amounts of children’s programming). There are other examples of unofficial bargaining between broadcasters and the FCC, including the trade that broadcasters made to submit to the imposition of children’s programming requirements in return for the allocation of digital television spectrum in the mid-1990s. See Robinson, *supra* note 18, at 917-18.

207. The government, while it must distribute licenses in accord with due process, need not distribute the licenses for speech purposes at all. It could, if it wanted to, decide that all spectrum should be used for military and common carriage point-to-point (e.g., telephonic) uses.

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license, spectrum users are not assured of market substitutes for the government grant. As long as the federal government monopolizes the distribution of spectrum use rights,²⁰⁸ the recipients of these rights cannot use spectrum to disseminate their speech without a federal license.²⁰⁹ However, in the case of spectrum licenses, unlike the case of licenses to practice law or construct buildings, the government is not simply acting as a gatekeeper; it is distributing rights to use scarce resources that have a market value by virtue of their scarcity. Again, as with a compulsory license, when the government distributes spectrum licenses at less than market value, it is relieving private actors of an expense they would otherwise bear.²¹⁰

Such a result does not square with the reason for treating the government more liberally in the subsidized speech context in the first place, which is that the importance of government neutrality diminishes when the government elects to promote speech.

In the end, none of the categorical distinctions between subsidies and non-subsidies discussed above really works. The determination of what kinds of discretionary benefits are so discretionary that they qualify as speech subsidies—the antecedent question—poses the very same questions as the subsidized speech analysis itself. The question is, what distinguishes a “liberty-expanding offer” from a “liberty-reducing threat”?²¹¹ In determining whether or not the conditions attached to a subsidy or

208. Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354 (1999) (arguing that spectrum is not really public property and there is no natural necessity for the government to monopolize the distribution of spectrum rights).

209. The FCC is considering how to privatize the market for spectrum, see Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Notice of Proposed Rulemaking*, 15 F.C.C.R. 24203 (2000), and critics starting with Ronald Coase in the 1950's have argued that spectrum use rights ought to be converted to private property rights. See, e.g., Ronald H. Coase, *The Federal Communications Commission*, 2 J.L. & ECON. 1 (1959). If spectrum is privatized to some extent, giving prospective licensees the ability to obtain spectrum for some services from private parties without the consent of the government, then even government spectrum licenses become benefits that are obtainable elsewhere.

210. Certainly, public opinion seems to view broadcast licenses as financial windfalls for the broadcaster. To wit, the 1997 allocation by the FCC of what some estimated to be \$70 billion in digital spectrum to broadcasters for free sparked a slew of editorial criticism. See, e.g., Donald Devine, *The New Robber Barons*, THE WASH. TIMES, April 10, 1997, at A14; Robert W. McChesney, *Digital Highway Robbery: Where is the 'Competition' the Telecommunications Act was Supposed to Provide?*, THE NATION, April 21, 1997, at 22; Alan Murray, *The Outlook: Digital TV Giveaway Foils Campaign Reform*, WALL STREET JOURNAL, March 17, 1997, at A1.

211. Kreimer *supra* note 59, at 1352.

benefit impose constitutional burdens, it has been argued that the distinction can only be drawn by reference to the baseline expectations of the government's duties towards the offeree.²¹² As we have seen, baselines are equally important to the prior question of whether a government program is a subsidy at all or simply a regulation with a conditional component.

Therefore, without going through the unconstitutional conditions inquiry into the impact of the government benefit on the speaker, there is no way to determine at the outset whether a subsidy operates as a benefit rather than a regulation.²¹³ As long as courts continue to consider the First Amendment implications of regulations and subsidies so differently, there will be an impulse to limit sharply what qualifies as a subsidy based on yet more categorical distinctions, which already make up much of contemporary First Amendment jurisprudence. Because the most likely distinctions between a copyright entitlement like SHVIA and other kinds of government subsidies are not compelling.

The benefits the government distributes to information technology industries, both cash and non-cash, must at least be considered for eligibility as speech subsidies entitled to more deferential First Amendment review.

IV. IMPROVING THE SUBSIDIZED SPEECH DOCTRINE

This section applies the Court's subsidized speech doctrine to SHVIA and explores the implications of the result. Not surprisingly, given the indeterminacy of the doctrine, the various limitations on the government's freedom to condition speech subsidies fail to provide a rule of decision for determining the constitutionality of SHVIA. More importantly, the doctrine overlooks factors that are particularly important to the operation of communications industry subsidies, specifically: (1) the course of bargaining in the creation of the subsidy; and (2) whether the subsidy's bargain serves to increase opportunities for speech and discourse. These additional considerations, alas, do not make the doctrine easier to apply, but they do give fuller effect to the

212. *See id.* at 1349.

213. Faced with this potential expansion of the class of cases that could be reviewed under the more deferential subsidized speech standard, courts might well decide that only cash subsidies qualify as subsidies. A more rigorous approach that acknowledges the hollowness of a cash/non-cash distinction could fortuitously result in a narrowing of the divide between heightened classic First Amendment scrutiny and deferential subsidized speech review.

First Amendment goals of a vibrant speech exchange as well as speaker autonomy.

A. *Failure of the Doctrine to Provide Principled Rule*

As discussed above, SHVIA is best viewed as subsidized speech, rather than an outright requirement that that DBS operators carry local broadcast signals.²¹⁴ Therefore, SHVIA is properly analyzed under the subsidized speech doctrine. Each of the six limitations on the government's ability to subsidize speech is discussed below.

1. The "No Alternative" Limitation

The "no alternative" limitation precludes the government from conditioning the subsidy in a way that burdens the speaker's expression outside of the subsidized channel. At the most basic level, SHVIA fails this test because a carrier that takes advantage of the compulsory copyright license in a given market must carry all stations in that market. There is no alternative method by which a carrier can make use of the license but buy its way out of the attendant burdens.²¹⁵

214. See *supra* Part III.B. It is possible, however, to analyze SHVIA as a plain regulatory restriction. A reviewing court treating it as such would apply a traditional First Amendment analysis—balancing the government's interests against those of the DBS industry, and then considering whether the restriction is sufficiently narrowly tailored—as the Supreme Court did in *Turner II*. The District Court for the Eastern District of Virginia, applying such an analysis, found SHVIA constitutional under *Turner II*'s intermediate scrutiny standard. See *Satellite Broad. & Communications Ass'n v. FCC*, 146 F. Supp. 2d 803 (E.D. Va. 2001) ("*SBCA*"), *aff'd*, 275 F.3d 337, and *cert. denied*, 122 S. Ct. 2588 (U.S. June 17, 2002) (No. 01-1332). In affirming, the Fourth Circuit recognized the possibility of a subsidized speech argument, but found it unnecessary to address the argument because it affirmed on traditional First Amendment grounds. *SBCA v. FCC*, 275 F.3d 337, 355 n.6 (4th Cir. 2001).

215. The "no alternative" test is a rough fit for SHVIA because the statute operates on a market-by-market basis. A DBS provider may take advantage of the compulsory copyright license in Philadelphia, while using purely private funds in New York in order to retain control over the selection of local stations. Furthermore, it is hard to contemplate what "alternative" is foreclosed by SHVIA. If we consider SHVIA as a restriction on an operator's ability to broadcast local channels of its choice, SHVIA passes the "no alternative" test because it mandates the distribution of *all* local channels that do not substantially duplicate content. Thus, even if an operator chooses to take SHVIA's conditional subsidy, there are no local channel alternatives that are foreclosed because SHVIA requires the carrier to "speak" them all. If we view SHVIA's conditions as a restriction on a carrier's ability to transmit national signals (because of capacity constraints), then SHVIA most certainly passes the "no alternative" test because a carrier is always free to use private money to increase its capacity to broadcast additional national channels.

2. The “Public Arena” Limitation

The “public arena” limitation requires the government to respect the traditional neutrality that speakers expect in a public setting. Thus, the government cannot restrict the expression of some viewpoints in places that it has subsidized in an effort to foster speech. SHVIA passes this limitation easily: a DBS satellite system is a private broadcast entity, not a public forum or other public arena.²¹⁶ Furthermore, SHVIA does not burden viewpoints.

3. The “Core Speech” Limitation

The “core speech” limitation prevents the government from using a subsidy to suppress ideas that it views as dangerous. There is no evidence that SHVIA was passed for such a purpose. Like most communications industry subsidies, SHVIA does not implicate core speech.²¹⁷

4. The “Objective Criteria” Limitation

The “objective criteria” limitation prevents the government from distributing benefits according to objective criteria, but then attaching content-based restrictions on receipt of the benefit. SHVIA’s subsidy is granted on an objective basis—DBS providers are given a compulsory license to retransmit local stations. However, because the conditions on the subsidy are also objective (once a carrier retransmits one local station using the compulsory copyright license) it must retransmit all local stations in that market and are not content-based, SHVIA passes the objective criteria limitation.

216. There is some support for applying the public arena limitation to any situation where the government, in the words of Justice Souter, creates “a subsidy scheme . . . to encourage expression of a diversity of views from private speakers.” *Nat’l Endowment for the Arts v. Finley*, 524 U.S. 569, 613 (1998) (Souter, J., dissenting). SHVIA would certainly meet this test: Congress expressly adopted SHVIA’s conditions in order to promote the diversity of speech provided by local broadcasters. *Conference Report*, *supra* note 164, at 101. If DBS qualified as a public forum in this context because of the government’s interest in fostering diverse voices, then most regulated communications industries would so qualify as well. It is more likely that the Court will continue to apply this limitation only to actual public fora, as traditionally determined. *See, e.g., Finley*, 524 U.S. at 599.

217. The obvious exception to this generalization about communications subsidies is *League of Women Voters* in which the government required public television stations to refrain from broadcasting editorials in exchange for funding. *See League of Women Voters Educ. Fund v. FCC*, 731 F.2d 995 (1984).

5. The “Private Speech” Limitation

The “private speech” limitation precludes the government from placing speech restrictions on subsidy programs that foster purely private speech. SHVIA seems to run afoul of this limitation. The speech restriction imposed by the carry-one-carry-all rule only affects the speech of DBS operators who are private speakers. Central to *Velazquez*’s holding was the Court’s view that private individualized advice could not “even under a generous understanding of the concept” be characterized as an expression of the government’s viewpoint. However, Congress very plainly expressed an interest in maintaining local broadcast voices and structured SHVIA to benefit the local broadcast speakers. Congress’s express desire to support local broadcast voices might conceivably make SHVIA more analogous to *Rust*, where Congress expressed a desired viewpoint on abortion.²¹⁸ But it is unlikely that local stations could be considered a cohesive viewpoint. The Fourth Circuit’s *SBCA* decision supports such a conclusion.²¹⁹

6. The “Institutional Distortion” Limitation

The final limitation on government subsidies, the “institutional distortion” limitation, serves to prevent the government from altering the usual and historical functioning of a given medium. SHVIA’s speech subsidy passes this test. First, DBS service is a relatively new technology and, the industry is not old enough to have traditions that the subsidy would distort. Second, to the extent that SHVIA distorts the DBS industry, it seeks to distort it by preserving the existing television programming topology.

A. *Improving the Doctrine*

An analysis of SHVIA within the current subsidized speech doctrine illustrates the failure of that doctrine to provide a clear answer. In large measure, this failure stems from the Court’s cases. The Court has never attempted to delineate the various limitations in a comprehensive manner, and has never offered a hierarchy of the limitations on the government’s power to structure subsidies. Setting aside the “core speech” and “institutional distortion” limitations, which do not reflect the Court’s central concern for speaker autonomy, SHVIA might be objectionable

218. Note that this position also goes to the heart of the satellite broadcaster’s view that SHVIA is content-based discrimination.

219. *SBCA v. FCC*, 275 F.3d 337, 355 (4th Cir. 2001).

under two of the four remaining limitations on the government's power to condition speech subsidies (the "no alternatives" and "private speech" limitations). The mere fact that SHVIA is content neutral could arguably be dispositive,²²⁰ but, as we have seen, the subsidized speech cases do not compel such a result. Mechanical application of the various coercion-based limitations on the government's freedom to structure speech subsidies yields no conclusive result.

The Court's subsidized speech decisions also overlook considerations that are particularly relevant when it comes to assessing the First Amendment import of restrictions on communications industry speakers. First, the doctrine does not compel an examination of the history by which the subsidy-with-restrictions was adopted. To the extent that the Court's doctrine looks to prevent coercion, it is meaningful whether the regulated industry agreed to, or advocated for, the subsidy in exchange for the concomitant restrictions. Second, the focus on coercion and speaker autonomy at the expense of other normative First Amendment values shortchanges what is often the organizing principle of communications law—the promotion of speech. When a speech subsidy is used to regulate the communications arena, the speech restriction may actually result in speech promotion. For example, both the benefit and burden attending SHVIA could be viewed as speech promoting: the subsidy allows the carriage of local stations and the condition (carry-one-carry-all) ensures a diverse speech marketplace. As the discussion of the outcomes of the leading subsidized speech cases above suggests, the Court is more attuned to the interests of listeners than the rationales for the decisions suggest.²²¹ In the communications area, the interests of listeners ought to be explicitly invoked.

220. Edwin Chemerinsky, *Content Neutrality as a Central Problem of Freedom of Speech: Problems in the Supreme Court's Application*, 74 S. CAL. L. REV. 49 (2000) notes that ordinary First Amendment cases increasingly turn on the distinction between content-neutral and content-based regulation and criticizes the Court's line-drawing in this context. The subsidized speech cases are not necessarily affected by the same dualism, as evidenced by *TWR*, in which a content-neutral condition on a subsidy (that a non-profit organization refrain from lobbying in order to receive favorable tax treatment) was not treated notably different from a content-based condition. In fact, in the same case, a content-based exception to the condition on the subsidy (in the case of veterans organizations) was permitted. See *Regan v. Taxation with Representation of Wash.*, 461 U.S. 540, 548-49 (1983) ("TWA").

221. See, *infra*, Section II.B.

1. Considering the Subsidy's History

Communications industries are well represented in Congress. Therefore, the ultimate allocation of benefits is highly likely to reflect a compromise among competitors. Current subsidized speech doctrine putatively looks primarily at the speech restrictions and their effect on speakers when implemented. The doctrine ignores, however, the speaker's role in crafting the bargain, and indeed, the possibility that the speaker may have agreed to the restrictions in order to receive the benefits of the subsidy. Where the speaker has played a prominent role in the creation of the subsidy, the coercion inquiry should be trained on the bargain's formation, not on its implementation. If the speaker was not coerced into accepting the bargain when it was struck, the speaker should not be able to subsequently claim that the bargain is coercive.²²²

Many provisions of communications law reflect the allocation of benefits among industries: payments from some telecommunications carriers to others;²²³ access to programming from some video distributors to others;²²⁴ and the provision of video distribution capacity from some distributors to some content providers.²²⁵ Each time Congress or the FCC attempts to make adjustments to one of these allocations, the industries participate in the process through lobbying, testimony, and filed comments. Furthermore, unlike the subsidies at issue in the leading subsidized speech cases, which go to underserved or under-represented populations, subsidies in the communications industry tend to benefit large well-funded corporations.²²⁶

222. This is not to say that formal rules such as estoppel or duress should apply. Rather, it is an attempt to interject process considerations into the doctrine of subsidized speech, where they are currently lacking. See Epstein, *supra* note 53, at 11-12 (“[T]he doctrine of unconstitutional conditions is directed toward the substance of various conditions, regardless of the course of negotiations between the individual . . . and the state.”).

223. See, e.g., 47 C.F.R. §§ 51.703 (requiring local exchange carriers to provide for reciprocal compensation for the transport and termination of telecommunications traffic with telecommunications carriers); 47 C.F.R. § 69.1-69.5 (requiring payments from long distance telephone companies to local telephone companies for the origination and termination of telecommunications traffic).

224. See, e.g., 47 C.F.R. § 76.1000-76.1001 (requiring cable operators to allow competitors to transmit vertically integrated programming).

225. See, e.g., 47 C.F.R. § 76.1503 (requiring Open Video Systems to carry video programming services); 47 C.F.R. § 76.56 (requiring cable companies to carry broadcast programming).

226. Professor Neil Netanel has proposed that legislative history be considered in the First Amendment review of laws that redistribute copyright entitlements in favor of industry. Neil W. Netanel, *Locating Copyright Within the First Amendment Skein*, 54 STAN. L. REV. 1 (2001). He argues that when copyright law is modified as

Public representation does not eliminate the chances for government coercion. In fact, if coercion is relevant to the constitutionality of speech subsidies where the speech is incidental to the activity (e.g., to representing indigent clients, providing pre-natal care, running non-profits), then coercion might be an even more important consideration for communications industries where speech *is* the beneficiary's activity. Where the medium is the message and the message is the business, presumably the loss of a speech subsidy for rejection of its conditions might be even more painful for a communications industry than for another beneficiary. However, the existence of coercion ought to be assessed differently where entitlements are adjusted among various competing industries against a complex regulatory backdrop.²²⁷ Because of the broader regulatory context in which SHVIA arose, DBS carriers were bargaining not only with the government, but also with the broadcast and cable industries. Because the government's consideration of benefits and burdens become the battlefields for competitive advantage, the way in which the bargain is struck and the compromises made should be important determinants of coercion.

All of the relevant industry players participated in the lengthy development of SHVIA.²²⁸ SHVIA's legislative history

a result of industry rent seeking at the expense of the public domain, the modifications should be more constitutionally suspect. *Id.* at 69-74. That analysis would not apply to SHVIA. An examination of SHVIA's legislative history shows that industry sat on both sides of the debate (for and against must-carry). Industry was not allied against the public because SHVIA merely allocates copyright and communications access benefits among various industry players, rather than reducing the scope of public domain material.

227. In recent years, the Court has found the regulatory context in which a speaker operates important for defining the scope and weight of the speech rights affected by regulation. The Court has in effect deemed that a speaker who participates in a heavily regulated industry has already sacrificed some of the autonomy that the First Amendment protects. *See, Reno v. ACLU*, 521 U.S. 844 (1997) (distinguishing speech restrictions on the Internet and on broadcasting because broadcasting is a highly regulated sector), *and United States v. United Foods*, 533 U.S. 405 (2001) (invalidating provision that requires commercial speech because it is not part of larger regulatory structure). With SHVIA, the government hoped to promote DBS without unfairly disadvantaging cable (by imposing must-carry obligations on cable, but not on satellite carriers) or upsetting the balance between cable and broadcast television that Congress thought it had achieved in the 1992 Cable Act (by making it easy for satellite to cherry-pick the most popular broadcast programming to the detriment of those stations the Cable Act sought to preserve). *See supra* Part III.A-B.

228. While the satellite broadcast industry is relatively new, DBS carriers were looking for ways to access broadcast stations years before SHVIA. SHVIA, after all, is the Satellite Home Viewer *Improvement* Act, which "improved" on two earlier efforts in the area. *See* Satellite Home Viewer Act of 1988, Pub. L. No. 100-667, 102 Stat. 3949; Satellite Home Viewer Act of 1994, Pub. L. No. 103-369, 108 Stat. 3477.

reveals traditional negotiations between politically sophisticated and powerful corporations—the DBS carriers (EchoStar and DirecTV) on one side and the broadcasters on the other. The satellite operators wanted a compulsory copyright license that would allow them access to the same local programming that their cable competitors had.²²⁹ The broadcasters opposed a grant of a compulsory copyright license to DBS carriers without attendant must-carry obligations.²³⁰ The cable industry sided with the broadcasters, contending that “there would be no parity of treatment under either the copyright or communications laws” unless satellite carriers that benefited from a cable-like compulsory licenses were burdened by cable-like must-carry obligations.²³¹ This process, by which the subsidies in SHIVA were crafted, should figure into the measure of coercion. Unfortunately, the subsidized speech doctrine currently does not take into account the course of negotiations between government, those it subsidizes, and related industries.²³²

The legislative record shows how the accommodation process lead to a bill that neither side found unduly coercive. For example, when broadcasters prevailed in persuading Congress that it should adopt some form of must-carry, the DBS carriers requested that Congress delay implementing the requirement so that the DBS carriers could increase their channel capacity to handle the new obligations.²³³ Congress accommodated the car-

229. See *House Hearing, supra* note 161, at 42 (statement of Steven J. Cox, Senior Vice President DIRECTV, Inc.) (“[T]he satellite license needs to be revised so as to place DBS providers on a more equal footing with their cable competitors, who currently drive [sic] competitive advantages from the terms of the cable compulsory license.”).

230. A broadcast industry representative told Congress that allowing DBS carriers to pick winners and losers by selectively carrying stations in each market “would be a giant step backward in the progress that the Congress has made in trying to preserve local free over-the-air service.” *Id.* at 154 (statement of Wade H. Hargrove, Counsel, Network Affiliated Stations Alliance).

231. *Id.* at 80 (statement of Decker Anstrom, President and CEO, Nat. Cable Television Association).

232. Professor Monroe Price, addressing First Amendment review of communications laws generally, has written that judges “can throw complex federal compromises . . . into a cocked hat.” Monroe E. Price, *Congress, Free Speech, and Cable Legislation: An Introduction*, 8 CARDOZO ARTS & ENT. L.J. 225, 228 (1990); see *id.* at 231 (“Structural policies advocated by first amendment zealots may be the best ones for the society. But they should be justified for their overall value to the community, not insisted upon only as required by the constitution.”).

233. See *Copyright Compulsory License Improvement Act: Hearing on H.R. 768 Before the Subcomm. on Courts and Intellectual Prop. of the House Comm. on the Judiciary*, 106th Cong. 29 (1999) (statement of David Moskowitz, Senior Vice President and General Counsel, EchoStar Communications Corp.) (“We are asking that legislation allow local-into-local with a grace period [before any carriage obligations apply.]”); S. 2494, *The Multichannel Video Competition Act of 1998: Hearing Before*

riers; SHVIA allowed DBS providers to use—for two years—the copyright portions of SHVIA without having to comply with the carry-one-carry-all provisions until January 1, 2002.²³⁴

The DBS carriers accepted this bargain because their experience taught that the lack of local stations on satellite television was the primary impediment to the growth of the DBS market.²³⁵ Subsequent evidence shows that the satellite carriers were correct. During the period in which satellite carriers had an unconditional right to broadcast local stations, the DBS carriers saw their subscribership grow substantially.²³⁶ The FCC has explicitly linked this growth to SHVIA.²³⁷ In cases like SHVIA, where satellite operators specifically requested that Congress enact SHVIA as it was finally drafted,²³⁸ courts should consider the course of bargaining when assessing any subsequent claims that the law impermissibly coerces them to forego protected speech.

Of course consideration of the legislative history will not always support a pro-government outcome, as it does with SHVIA. For example, in *Reno v. ACLU*, the Court struck down the Com-

the Subcomm. on Communications of the Senate Comm. on Commerce, Science and Transportation, 105th Cong. 23 (1998) (statement of Charles C. Hewitt, President, SBCA) (“[I]f the technology was there, we would certainly support [must-carry] . . . I think that is why we agreed to a phase-in.”). See *supra* note 214 for an explanation of the capacity restraints of DBS.

234. 47 U.S.C. § 338(a) (2000).

235. *Copyright Compulsory License Improvement Act: Hearing on H.R. 768 Before Subcomm. on Courts and Intellectual Prop. of the House Comm. on the Judiciary*, 106th Cong. 33 (1999) (statement of David Moskowitz, Senior Vice President and General Counsel, EchoStar Communications Corp.) (“[M]ost of the people who walk into a satellite dealer’s showroom turn around and walk out because they can’t get their local TV channels through DBS.”).

236. See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, *Eighth Annual Report*, 17 F.C.C.R. 1244, 1247 (2002) (“Between June 2000 and June 2001, the number of DBS subscribers grew from almost 13 million households to about 16 million households, which is nearly two and a half times the cable subscriber growth rate.”).

237. *Id.* (“The continued growth of DBS is, in part, attributable to the authority granted to DBS operators to distribute local broadcast television stations in their local markets by the Satellite Home Viewer Improvement Act of 1999.”).

238. See *Reauthorization of the Satellite Home Viewer Act: Hearing Before the Subcomm. on Telecomm., Trade, and Consumer Protection of the House Comm. on Commerce*, 106th Cong. 70 (1999) (statement of David K. Moskowitz, Senior Vice President and General Counsel, EchoStar Communications Corp.); S. 2494, *The Multichannel Video Competition Act of 1998: Hearing Before the Subcomm. on Communications of the Senate Comm. on Commerce, Science and Transportation*, 105th Cong. 7 (1998) (statement of Charles C. Hewitt, President, SBCA). This is not to say that satellite operators would not have preferred a compulsory license free of the carry-one-carry-all condition. Their First Amendment challenge of SHVIA was curious in that even if they had prevailed, they were unlikely to convince a court to preserve the license, but sever and strike down the conditions. Instead, they likely would have been left without any compulsory license whatsoever.

munications Decency Act²³⁹ on First Amendment grounds, in part because Congress conducted no hearings on the bill and did not offer any findings to explain the need for the legislation.²⁴⁰ Thus if Congress had failed to consult with the satellite carriers in crafting a compulsory copyright license, a consideration of the history might result in a conclusion that SHVIA *is* coercive. However it may cut, the history of the negotiations should inform the question of whether a subsidy is coercive. The current subsidized speech doctrine simply does not require such consideration.

2. Considering Speech Enhancement

A coercion analysis, even one rich enough to take process into account, is too focused on speaker autonomy to capture the First Amendment value of speech diversity which plays such a central role in communications industry regulation. Much contemporary First Amendment law proceeds from the notion that the government should stay out of the “marketplace of ideas,” allowing ideas to compete on their merits for public acceptance.²⁴¹ It is a commonplace argument since the New Deal that the marketplace for goods and services might be distorted by wealth, imperfect information, or collective action problems, and government intervention is sometimes required to correct the market.²⁴² Electronic media regulation applies to the information market the same skepticism about market dynamics that has, since the New Deal, characterized economic regulation.

While satellite carriers depict SHVIA as an undue restriction on their editorial control,²⁴³ the carriage restrictions have more to do with increasing speech (through the preservation of marginal broadcast stations) than with suppressing freedom. Congress tried to preserve more speech by “helping viewers have

239. Communications Decency Act, Pub. L. No. 104-104, Title V, 110 Stat. 56 (1996).

240. *Reno v. ACLU*, 521 U.S. 844, 858, 879 (1997).

241. See *Abrams v. United States*, 250 U.S. 616, 630 (1919) (Holmes, J., dissenting) (“the best test of truth is the power of the thought to get itself accepted in the competition of the market”).

242. See, e.g., Owen M. Fiss, *Why the State?*, 100 HARV. L. REV. 781, 787-89, 791 (1987); CATHARINE A. MACKINNON, *FEMINISM UNMODIFIED: DISCOURSES ON LIFE AND LAW*, 140, 155-58, 195 (1987).

243. *SBCA v. FCC*, 275 F.3d 337, 371 (4th Cir. 2001); see also *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 636 (1994). But see C. Edwin Baker, *Turner Broad.: Content-Based Regulation of Persons and Presses*, 1994 Sup. Ct. Rev. 57, 62-80 (arguing that structural regulation of media companies should be treated as ordinary economic regulation); C. Edwin Baker, *The Process of Change and the Liberty Theory of the First Amendment*, 55 S. CAL. L. REV. 293 (1982) (arguing that First Amendment protection should be afforded to the press, but not passive carriers).

access to all local programming while benefiting satellite carriers and their customers.”²⁴⁴ Thus, it “structured the copyright licensing regime for satellite to encourage and promote retransmissions by satellite of local television broadcast stations to subscribers who reside in the local markets of those stations.”²⁴⁵

In the absence of a compulsory license to facilitate the carriage of local stations, DBS subscribers would have less access to local channels and non-DBS subscribers would have less access to local content as the erosion of the potential audience leads to a weakening of local programming.²⁴⁶ If Congress had adopted a compulsory copyright license that did not require carriage of all local stations, DBS subscribers would, assuming a functioning market, receive the precise number of local stations they desired. But non-DBS subscribers might lose stations that fail for lack of viewer exposure. By requiring the carriage of these types of programming, SHVIA’s conditions promote speech by giving DBS and non-DBS subscribers access to a greater variety of speech.²⁴⁷

With respect to viewers who receive their programming through traditional over-the-air transmissions, the effect is particularly acute. Because the lack of satellite carriage causes local broadcasting to decline, the viewing choices of over-the-air viewers are restricted by the market choices of DBS subscribers. Over-the-air viewers are irrelevant to the programming choices of DBS providers. But the programming choices of DBS provid-

244. See *Conference Report, supra* note 164, at 102 (“the congressional policy of localism and diversity of broadcast programming, which provides locally-relevant news, weather, and information”); see also Cable Television Consumer Protection and Competition Act, Pub. L. No. 102-385, § 2(a)(6), 106 Stat. 1461 (1992) (“There is a substantial governmental and First Amendment interest in promoting a diversity of views provided through multiple technology media.”).

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245. *Conference Report, supra* note 164, at 92.

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246. See *SBCA v. FCC*, 275 F.3d 337, 349 (4th Cir. 2001).

No rational doubt may exist that a local station denied access to a portion of its in market audience is injured. Lack of carriage reduces potential audience and, therefore, actual audience. Reduced audiences translate to reduced revenue. Even where revenue reductions are less than fatal, they still affect a station’s ability to provide the best practicable service to the public. At best, a local station which a satellite carrier refuses to carry would be placed at a demonstrable disadvantage vis-à-vis competing broadcast television stations which are carried.

Id. (quoting *Copyright Licensing Regimes Covering Retransmission of Broadcast Signals (Part II): Hearing Before the Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary*, 105th Cong. 68 n.38 (1998) (statement of James J. Popham, Vice President and General Counsel, Association of Local Television Stations)).

247. In fact, some commentators believe that regulation of the electronic media to ensure a greater diversity of voices is not just desirable from a First Amendment perspective, but constitutionally compelled. See, e.g., Jerome A. Barron, *Access to the Press—A New First Amendment Right*, 80 HARV. L. REV. 1641 (1967).

ers are directly relevant to the viewing choices available to over-the-air viewers. Congress expressly recognized this problem and, in SHVIA, sought to inject the interests of the over-the-air viewers into the DBS providers' programming decisions.²⁴⁸

Both the subsidy and the limitations on the subsidy were designed to promote speech via the preservation and transmission of local broadcast signals.²⁴⁹ That there are First Amendment interests on both sides should not exempt a speech burden from scrutiny, but it does suggest that the analysis ought to be different.²⁵⁰ A court might conclude from the standard coercion analysis that satellite carriers face tremendous pressure to sacrifice speech interests. It ought to be relevant that, if the carriers succumb to this pressure, there will be more speech available to the public.²⁵¹ Judgments about whether or not subsidies enrich the

248. *Conference Report*, *supra* note 164, at 102.

249. There are many examples of regulation that burdens some speech while enhancing other speech, such as defamation law and campaign financing restrictions. *See* Mark A. Lemley & Eugene Volokh, *Freedom of Speech and Injunctions in Intellectual Property Cases*, 48 DUKE L.J. 147 (1998). The *Turner* cases of course dealt with such a regulation.

250. Balancing between the speaker's interest and the government's interest is a hallmark of modern First Amendment jurisprudence and finds expression in the triad of strict, intermediate and rational basis scrutiny. *See, e.g.*, *United States v. O'Brien*, 391 U.S. 367, 376-77 (1968). To reduce the possibility that ad hoc balancing will degenerate into standardless and overly fact dependent constitutional determinations, the Court has created categories of speech (e.g., commercial, viewpoints, content-neutral) that weight the balance and determine the outcome of many cases. *See generally* Jerome A. Barron, *The Electronic Media and the Flight from First Amendment Doctrine: Justice Breyer's New Balancing Approach*, 31 U. MICH. J.L. REFORM 817, 817-20 (1998) (discussing the early debate about the merits of First Amendment balancing, as well as criticism of First Amendment speech categories). In a handful of recent opinions and concurring opinions, Justice Breyer employs a more nuanced balancing approach that takes into account not just the speaker's and the government's interests, but the competing First Amendment values that are at stake when the government regulates the media and other institutional speakers in the name free speech. *See Turner Broad. Sys. v. FCC*, 520 U.S. 180, 225-295 (1997) (*Turner II*), (Breyer, J., concurring) (balancing viewers' interests in a diverse array of local broadcast channels with cable operators' interests in editorial control over their systems); *Denver Area Educ. Telecomms. Consortium, Inc. v. FCC*, 518 U.S. 727, 743-44 (1996) (balancing cable programmers' interests in access to cable channels against cable operators' interests in editorial control over their systems); *Bartnicki v. Vopper*, 532 U.S. 514, 536-41 (2001) (Breyer J., concurring) (balancing the right of the media to publish and the individual's right of privacy in private speech); *Nixon v. Shrink Miss. Gov't. PAC*, 528 U.S. 377, 399-405 (Breyer J., concurring) (balancing the candidate's speech rights with the public's interests in political elections that are free from corruption and the appearance of corruption).

251. To the extent that satellite carriers are not vertically integrated with program suppliers, as is generally the case today, they are likely to be guided in their selection of programming by the tastes of their subscribers. Even so, subscribers may be benefited by SHVIA carriage obligations in two ways. First, the less popular broadcast stations like the educational stations might be a public good that ratings would not select for. *See, e.g.*, Cass R. Sunstein, *Television and the Public Interest*,

information marketplace ought not to supplant the autonomy-maximizing or democracy-enhancing values in assessing the constitutionality of speech subsidies. Certainly, a subsidy might be unconstitutional no matter how much speech is enhanced. Nevertheless, the regulatory encouragement of speech—by fostering localism through spectrum licensing and fostering of speech diversity through access requirements and ownership restrictions—embodies a constitutional norm that should be preserved in subsidized speech analysis, particularly in cases where the government is allocating entitlements to speak. A broader balancing of the burdens and benefits of a speech subsidy package in subsidized speech analysis supports this goal.

CONCLUSION

I have argued in this piece that speech subsidies may come in many forms, not necessarily cash grants or tax exemptions, and may even take the form of a copyright entitlement, as in the case of SHVIA. The prevailing test of constitutionality in the subsidized speech cases turns on whether or not the speaker has been coerced into giving up speech rights in order to get a government subsidy. I have tried to show that this coercion test fails to yield predictable and justifiable results in the leading subsidized speech cases because, as many scholars have noted, there is no readily discernable resting point in the slide from inducement to compulsion. It is not surprising, then, that the Court has, without much analysis, supplemented the coercion test with considerations of the value of the speech disfavored by the government, censoring only those subsidies that burden core First Amendment speech voicing political dissent or motivating political discussion.

When it comes to communications industry subsidies like SHVIA, I suggest that the existing test of speaker coercion is particularly inept. This is because the subsidies are often bargained for by the industry beneficiaries themselves from a standpoint of political strength and sophistication. Any coercion analysis must take into account the course of bargaining between and among the communications industries, and the government. More significantly, the coercion analysis focuses too much on speaker impact and too little on listener impact. The entire

88 CALIF. L. REV. 499 (2000). Second, a less popular broadcast station might still be more popular in its local market than a national programming service that would take its place. However, because carriage of a local station is so much more expensive than carriage of a national station in terms of capacity consumed per subscriber, the carrier is likely to choose the national over the local service.

structure of electronic media regulation is designed to promote a diversity of voices and accessibility of speech. Government subsidies to the communications media, like its regulations, ought to be judged in substantial part by whether they enrich the speech market so that distinct voices are accessible in the increasingly concentrated mass media space. It is likely that, as more and more communications regulations fall to First Amendment challenges, government will turn increasingly to speech subsidies to achieve communications policy goals. If so, courts ought to be prepared to apply a more nuanced subsidized speech doctrine which pays more attention to the dynamics of industry bargaining and to the speech market as a whole.

LIBERATING *RED LION* FROM THE GLASS MENAGERIE OF FREE SPEECH JURISPRUDENCE

JIM CHEN*

I. ECCE LEO

I could break free
From the wood of a coffin
If I need
But nothing's hard as
Getting free from places
I've already been

- THE WALLFLOWERS, *I've Been Delivered* (2000)¹

The law of information platforms has blurred numerous doctrinal categories within the law and has begun to assimilate a widening array of nonlegal disciplines.² Communications law alone has become “so vast that fully to comprehend it would require an almost universal knowledge ranging from” engineering, economics, and management science “to the niceties of the legislative, judicial, and administrative processes of government.”³ In contemporary regulatory analysis, it therefore borders on apostasy to address a strictly legal proposition. But straightforward legal analysis has its place, if only because law alone consistently presents “truth in the pleasant disguise of illusion.”⁴

I hereby propose a little legal fantasy.⁵ Which case, statute, or rule would scholars erase from the books if they suddenly acquired the power to “strike like lightning” and vaporize any sin-

1. Hear THE WALLFLOWERS, *I've Been Delivered*, on BREACH (Interscope Records 2000).

2. See generally Philip J. Weiser, *Law and Information Platforms*, 1 J. TELECOMMS. & HIGH TECH. L. 1 (2002).

3. *Queensboro Farm Prods., Inc. v. Wickard*, 137 F.2d 969, 975 (2d Cir. 1943) (Frank, J.) (making this observation in the context of agriculture). See generally Richard A. Posner, *The Decline of Law as an Autonomous Discipline: 1962-1987*, 100 HARV. L. REV. 761 (1987).

4. TENNESSEE WILLIAMS, *THE GLASS MENAGERIE* 4 (New Directions Books 1999) (1st ed. 1945).

5. See generally Symposium, *The Sound of Legal Thunder: The Chaotic Consequences of Crushing Constitutional Butterflies*, 16 CONST. COMMENTARY 483 (1999).

gle development from the law of information platforms?⁶ *Red Lion Broadcasting Co. v. FCC*,⁷ the 1969 decision in which the Supreme Court decreed a medium-specific approach to first amendment controversies involving radio and broadcast television, might be the leading choice.⁸ Although the Supreme Court has never applied the “scarcity” rationale associated with *Red Lion* to any medium besides broadcasting,⁹ the Court has frequently resolved free speech controversies in a new communications medium by drawing analogies to broadcasting. *Red Lion* remains the most exotic and most fragile beast in the glass menagerie of the Supreme Court’s free speech jurisprudence.

Analysis of communications law ordinarily disdains an appeal to history. *Red Lion*’s vintage and prominence, however, may warrant an exception. All jurisprudence “associated with broadcasting . . . ha[s] a musty odor” even though *Red Lion*, its “chief source of constitutional authority,” is barely “thirty years old.”¹⁰ This time span, which is roughly equivalent to a single human generation, typically provides ample “time for the Supreme Court to complete a constitutional hiccup.”¹¹ We scholars should do no less. Cognizant that one rarely gets ahead by praising existing law,¹² I shall dedicate the balance of this article to trashing *Red Lion*. After arguing that *Red Lion* still matters, albeit not because of its “scarcity” rationale, I will conclude that we should let it go.

II. THE KING OF FIRST AMENDMENT BEASTS

I believe in the future of television! . . . Full steam - . . . Knowledge - Zzzzzp! Money - Zzzzzp! - Power! That’s the cycle democracy is built on!

- TENNESSEE WILLIAMS, *THE GLASS MENAGERIE* (1945)¹³

The constitutional law of broadcasting, so central to the free speech jurisprudence of information platforms, carries the echoes

6. *Duckworth v. Eagan*, 492 U.S. 195, 211 (1989) (O’Connor, J., concurring).

7. 395 U.S. 367 (1969).

8. See sources cited *infra* note 24.

9. Cf., e.g., Eugene Volokh, *Freedom of Speech, Shielding Children, and Transcending Balancing* 1997 SUP. CT. REV. 141, 146 (“[T]he broadcasting cases have generally had rather little gravitational force. . . .”)

10. Glen O. Robinson, *The Electronic First Amendment: An Essay for the New Age*, 47 DUKE L.J. 899, 903-04 (1998).

11. Jim Chen, DeFunis, *Defunct*, 16 CONST. COMMENTARY 91, 98 (1999).

12. See generally Daniel A. Farber, *Gresham’s Law of Legal Scholarship*, 3 CONST. COMMENT. 307 (1986); Mark G. Kelman, *Trashing*, 36 STAN. L. REV. 293 (1984).

13. WILLIAMS, *supra* note 4, at 82.

of that “quaint period . . . when the huge middle class of America was . . . having [its] fingers pressed forcibly down on the fiery Braille alphabet of a dissolving economy.”¹⁴ *Red Lion* evaluated the constitutionality of a cluster of rules springing from the FCC’s “fairness doctrine,” which required “that discussion of public issues be presented on broadcast stations, and that each side of those issues must be given fair coverage.”¹⁵ The personal attack rule provided that “[w]hen a personal attack has been made on a figure involved in a public issue . . . the individual attacked himself [must] be offered an opportunity to respond.”¹⁶ The political editorializing rule required a broadcaster who endorsed or opposed a political candidate to offer all disfavored “candidates . . . reply time to use personally or through a spokesman.”¹⁷ Both the personal attack rule and the political editorializing rule “differ[ed] from the general fairness requirement . . . in that the broadcaster [did] not have the option of presenting the attacked party’s side himself or choosing a third party to represent that side.”¹⁸ In deflecting a first amendment attack by aggrieved broadcasters, the Supreme Court recited what has become the standard formulation of the scarcity rationale: “Where there are substantially more individuals who want to broadcast than there are frequencies to allocate, it is idle to posit an unabridgeable First Amendment right to broadcast comparable to the right of every individual to speak, write, or publish.”¹⁹

Quite notoriously, the Court failed to rely on *Red Lion* a mere five years later. *Miami Herald Publishing Co. v. Tornillo*²⁰ invalidated a state right-of-reply law identical in all relevant respects to the FCC’s fairness doctrine. *Tornillo* treated the right of reply as an unacceptable affront to a newspaper publisher’s “exercise of editorial control and judgment.”²¹ The Court also objected to the “costs [of] comply[ing] with a compulsory access law,” measured not only “in terms of the cost [of] printing” but also in terms of the opportunity cost of forgoing “other material that the newspaper may have preferred to print.”²²

14. *Id.* at 5.

15. *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 369 (1969).

16. *Id.* at 378.

17. *Id.*

18. *Id.*

19. *Id.* at 388.

20. 418 U.S. 241 (1974).

21. *Id.* at 258.

22. *Id.* at 256-58.

Although *Tornillo* never cited *Red Lion*, let alone distinguished it,²³ subsequent cases and commentary have elevated the scarcity doctrine to mythic status. Since 1969 the Supreme Court has consistently relied on *Red Lion* to dilute first amendment review of laws having some connection to conventional broadcasting.²⁴ Of course, no one besides the Justices actually believes the scarcity rationale. Dissatisfaction with *Red Lion* has spawned an academic cottage industry.²⁵ For nearly a generation, lower court judges have urged the Supreme Court to overrule *Red Lion*.²⁶ Even the FCC at one point repudiated *Red Lion's* rationale²⁷ (though the Commission in more recent years

23. See, e.g., Roland F.L. Hall, *The Fairness Doctrine and the First Amendment: Phoenix Rising*, 45 MERCER L. REV. 705, 760-61 (1994); Jeffrey S. Hops, *Red Lion in Winter: First Amendment and Equal Protection Concerns in the Allocation of Direct Broadcast Satellite Public Interest Channels*, 6 COMMLAW CONSPECTUS 185, 190 (1998); Norman Redlich & David R. Lurie, *First Amendment Issues Presented by the "Information Superhighway,"* 25 SETON HALL L. REV. 1446, 1449 n.13 (1995); Robinson, *supra* note 9, at 909.

24. See, e.g., FCC v. League of Women Voters, 468 U.S. 364, 380 (1984); FCC v. Pacifica Found., 438 U.S. 726, 748 (1978); FCC v. Nat'l Citizens Comm. for Broad., 436 U.S. 775, 795 (1978); First Nat'l Bank v. Bellotti, 435 U.S. 765, 791 n.30 (1978); Columbia Broad. Sys., Inc. v. Democratic Nat'l Comm., 412 U.S. 94, 101 (1973); cf. Bolger v. Youngs Drug Prods. Corp., 463 U.S. 60, 74 (1983) ("Our decisions have recognized that the special interest of the Federal Government in regulation of the broadcast media does not readily translate into a justification for regulation of other means of communication." (footnote omitted)).

25. See, e.g., LEE BOLLINGER, IMAGES OF A FREE PRESS 87-90 (1991); L.A. SCOT POWE, AMERICAN BROADCASTING AND THE FIRST AMENDMENT 197-209 (1987); MATTHEW SPITZER, SEVEN DIRTY WORDS AND SIX OTHER STORIES 7-18 (1986); Mark S. Fowler & Daniel L. Brenner, *A Marketplace Approach to Broadcast Regulation*, 60 TEX. L. REV. 207, 221-26 (1982); Hall, *supra* note 22, at 708-14; Thomas G. Krattenmaker & L.A. Powe, Jr., *The Fairness Doctrine Today: A Constitutional Curiosity and an Impossible Dream*, 1985 DUKE L.J. 151, 151-52; Jonathan Weinberg, *Broadcasting and Speech*, 81 CAL. L. REV. 1103, 1106 (1993); Lawrence H. Winer, *The Signal Cable Sends - Part I: Why Can't Cable Be More like Broadcasting?*, 46 MD. L. REV. 212, 221-22 (1987). One particularly harsh observation, made more than two decades ago, summarizes the academic consensus: "The 'scarcity' rationale . . . has worn so thin that continuing it would be gratuitous." Daniel D. Polsby, *Candidate Access to the Air: The Uncertain Future of Broadcaster Discretion*, 1981 SUP. CT. REV. 223, 257-58.

26. See, e.g., Time Warner Entm't Co. v. FCC, 105 F.3d 723, 724-26 (D.C. Cir. 1997) (Williams, J., dissenting from denial of rehearing); Telecomm. Research & Action Center v. FCC, 801 F.2d 501, 509 (D.C. Cir. 1986), *cert. denied*, 482 U.S. 919 (1987). Most lower federal courts, of course, unhesitatingly apply *Red Lion* in first amendment cases involving broadcasting. See, e.g., Time Warner Entm't Co. v. FCC, 93 F.3d 957, 975-77 (D.C. Cir. 1996).

27. See Syracuse Peace Council, 2 F.C.C.R. 5843 (1987), *aff'd sub nom.* Syracuse Peace Council v. FCC, 867 F.2d 654 (D.C. Cir. 1989), *cert. denied*, 493 U.S. 1019 (1990); cf. William N. Van Alstyne, *The Mobius Strip of the First Amendment: Perspectives on Red Lion*, 29 S.C. L. REV. 539, 574 (1978) (criticizing the use of the scarcity rationale to uphold the fairness doctrine); Kenneth Karst, *Equality as a Central Principle in the First Amendment*, 43 U. CHI. L. REV. 20, 49 (1975) (same).

has tried to renounce this heretical stance).²⁸ Throughout, the Supreme Court has continued to regard a “forced response” of the sort at issue in *Tornillo* - or, for that matter, in *Red Lion* - as “antithetical to the free discussion that the First Amendment seeks to foster.”²⁹ In 1998 the Court admitted that subjecting *broadcasters* to “broad rights of access for outside speakers” is “antithetical . . . to the discretion that stations and their editorial staff must exercise.”³⁰ *Red Lion* and its kindred broadcasting cases have become so “freakish” within the livery of free speech decisions that they no longer “feel . . . at home with the other [cases], the ones that don’t have horns.”³¹

This freakishness impairs the accurate assessment of *Red Lion*’s proper place in free speech jurisprudence. The scarcity rationale, a myth whose impenetrability has grown from its sheer implausibility, now overshadows *Red Lion*. Lest we aggravate the law’s tendency to “turn even outrageous myth into history through a sufficiently persistent pattern of citations,”³² perhaps we should inspect *Red Lion* more diligently. Fidelity to controlling legal texts, after all, is widely regarded to be a core constitutional value.³³

In their rush to condemn *Red Lion*, critics often overlook or ignore the Justices’ recognition that scarcity in broadcasting was technologically contingent. “Advances in technology,” *Red Lion* acknowledged, “have led to more efficient utilization of the frequency spectrum, but uses for that spectrum have also grown apace.”³⁴ Mindful of “[t]he rapidity with which technological advances succeed one another to create more efficient use of spectrum space on the one hand, and to create new uses for that

28. *Compare* Radio-Television News Directors Ass’n v. FCC, 184 F.3d 872 (D.C. Cir. 1999) (declining to abrogate the personal attack and political editorializing rules at issue in *Red Lion* solely on the strength of the repeal of the fairness doctrine in *Syracuse Peace Council*), *with* Radio-Television News Dirs. Ass’n v. FCC, 229 F.3d 269 (D.C. Cir. 2000) (issuing a writ of mandamus ordering the Commission to repeal the personal attack and political editorializing rules).

29. *Pac. Gas & Elec. Co. v. Public Util. Comm’n*, 475 U.S. 1, 16 (1986) (plurality opinion); *see also* *Riley v. Nat’l Fed’n of the Blind, Inc.*, 487 U.S. 781, 797 (1988) (relying on *Tornillo* to invalidate a statute mandating certain disclosures triggered by the solicitation of charitable contributions).

30. *Arkansas Educ. Television Comm’n v. Forbes*, 523 U.S. 666, 673 (1998).

31. WILLIAMS, *supra* note 4, at 86.

32. Jim Chen, *Filburn’s Forgotten Footnote - Of Farm Team Federalism and Its Fate*, 82 MINN. L. REV. 249, 277 (1997).

33. *See* Lawrence Lessig, *Fidelity in Translation*, 71 TEX. L. REV. 1165 (1993); *cf.* Philip P. Frickey, *Faithful Interpretation*, 73 WASH. U. L.Q. 1085, 1092-93 (1995) (identifying similarities and differences among religious, literary, and legal interpretation).

34. *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 396-97 (1969).

space by ever growing numbers of people on the other,” the Court thought it “unwise to speculate on the future allocation of that space.”³⁵

It thus behooves us to look beyond *Red Lion’s* static defense of scarcity and to focus on that decision’s *dynamic* dimension. “Technological change occupies a unique place in the modern development of judicial doctrine because it provides a singularly uncontroversial justification for modifying established doctrine.”³⁶ Lawmakers routinely treat the emergence of new communications technologies as the occasion to launch fresh regulatory assaults on speech. “New technology,” far from providing “the easy answer to everything,”³⁷ could represent the first amendment’s “Trojan horse.”³⁸

Within the law of information platforms, the most enduring statement in *Red Lion* is therefore not its formulation of its scarcity rationale, but Justice White’s assertion that “differences in the characteristics of new media justify differences in the First Amendment standards applied to them.”³⁹ Emboldened by this endorsement of a conduit-specific approach, courts routinely exploit technological differences between older and newer modes of communication in setting the level of constitutional protection for speech in the newer medium. Because “[c]ourts often succumb to the temptation to analogize new electronic media to existing technologies for which they have already developed First Amendment models,”⁴⁰ *Red Lion* has proved surprisingly durable, surviving even though technological change has catapulted communications far beyond conventional broadcasting.

Tracing the Supreme Court’s uses of Justice White’s “new media” dictum reveals the extent to which *Red Lion* has shaped the Supreme Court’s efforts to determine the degree of protection

35. *Id.* at 399.

36. Monroe E. Price & John F. Duffy, *Technological Change and Doctrinal Persistence: Telecommunications Reform in Congress and the Court*, 97 COLUM. L. REV. 976, 1008 (1997).

37. Thomas W. Hazlett, *Predation in Local Cable TV Markets*, 40 ANTITRUST BULL. 609, 643 (1995); see also Fred H. Cate, *Telephone Companies, the First Amendment, and Technological Convergence*, 45 DEPAUL L. REV. 1035 (1996).

38. Robinson, *supra* note 9, at 902. See generally ITHIEL DE SOLA POOL, *TECHNOLOGIES OF FREEDOM* (1983).

39. *Red Lion*, 395 U.S. at 386; accord, e.g., *City of Los Angeles v. Preferred Communications, Inc.*, 476 U.S. 488, 496 (1986) (Blackmun, J., concurring) (“Different communications media are treated differently for First Amendment purposes.”); *Southeastern Promotions, Ltd. v. Conrad*, 420 U.S. 546, 557 (1975) (“Each medium of expression . . . must be assessed for First Amendment purposes by standards suited to it, for each may present its own problems.”).

40. Note, *The Message in the Medium: The First Amendment on the Information Superhighway*, 107 HARV. L. REV. 1062, 1062 (1994).

that speech merits in diverse conduits of communication. I turn now to that task.

III. ANDROCLES AND *RED LION*: SOME THORNY MATTERS OF DOCTRINE

The open mind never acts: when we have done our utmost to arrive at a reasonable conclusion, we still . . . must close our minds for the moment with a snap and act dogmatically on our conclusions.

- GEORGE BERNARD SHAW, *ANDROCLES AND THE LION* (1916)⁴¹

Red Lion reached far beyond its mythical scarcity rationale. In addition to “the scarcity of broadcast frequencies,” the Court cited “the Government’s role in allocating those frequencies, and the legitimate claims of those unable without governmental assistance to gain access to those frequencies for expression of their views.”⁴² The Court explicitly reserved judgment on two “related argument[s]” beyond the admittedly temporary “technological scarcity of frequencies.”⁴³ First, the Court acknowledged that legally induced “economic scarcity” arising from actual or potential “limit[s] [on] entry to the broadcasting market” might justify intervention in favor “of those excluded” from the airwaves.⁴⁴ Second, the Court hinted that it might immunize “legislation [that] directly or indirectly multipl[ies] the voices and views presented to the public through . . . devices which limit or dissipate the power of those who sit astride the channels of communication with the general public.”⁴⁵

Careful examination of *Red Lion* therefore reveals no fewer than three distinct justifications for tailoring first amendment protection according to the characteristics of a specific conduit. First, if scarcity is something more than a strictly technological phenomenon, the government might be able to defend more aggressive intervention. Second, the history and thoroughness of economic regulation may warrant greater deference to the legislative structuring of particular information platforms. Third, the

41. GEORGE BERNARD SHAW, *ANDROCLES AND THE LION: AN OLD FABLE RENOVATED* 108-09 (1951) (1st ed. 1916); accord Thomas E. Baker, *Siskel and Ebert at the Supreme Court*, 87 MICH. L. REV. 1472, 1502 (1989) (reviewing REDEFINING THE SUPREME COURT’S ROLE: A THEORY OF MANAGING THE FEDERAL JUDICIAL PROCESS (1986)). For a more traditional version of Aesop’s fable, see JOSEPH JACOBS, *Androcles and the Lion*, in EUROPEAN FOLK AND FAIRY TALES 107 (1916).

42. *Red Lion*, 395 U.S. at 400.

43. *Id.* at 401 n.28.

44. *Id.*

45. *Id.*

vulnerability of an information platform to domination by a single entity may justify authorizing the government to mute louder voices so that softer ones might be heard. The 1978 case of *FCC v. Pacifica Foundation*,⁴⁶ which upheld the FCC's authority to restrict the timing of potentially offensive broadcasts such as George Carlin's "Seven Dirty Words" routine, suggested a fourth possibility beyond "the notion of 'spectrum scarcity':"⁴⁷ some media are "uniquely pervasive," able without warning to shatter privacy even at home, and "uniquely accessible to children, even those too young to read."⁴⁸

Far from relying thoughtlessly on scarcity - which after all is "a universal fact" - to supply a "distinguishing principle" for "explain[ing] regulation in one context and not another,"⁴⁹ the Supreme Court's decisions since 1969 have, by and large, accounted for the nuances underlying its broadcasting cases. As communications technologies have evolved from broadcast television to cable and the Internet, the Court has gradually fulfilled *Red Lion's* promise of a multifaceted, conduit-specific approach to free speech cases arising in new media.

Cable television posed the first test of *Red Lion's* applicability outside its native context.⁵⁰ In 1968, one year before deciding *Red Lion*, the Supreme Court upheld the FCC's authority to regulate cable in defense of the Commission's broadcasting agenda.⁵¹ Congress, the Commission, and the Court all expressed a desire to shield broadcast television from cable's "unregulated explosive growth."⁵² A decade later, the Court acknowledged that "[c]able operators . . . share with broadcasters a significant amount of editorial discretion regarding what their programming will include."⁵³ In its first opportunity to apply the

46. 438 U.S. 726 (1978).

47. *Id.* at 770 n.4 (Brennan, J., dissenting).

48. *Pacifica*, 438 U.S. at 748-49; *accord* *Reno v. ACLU*, 521 U.S. 844, 866 (1997); *Denver Area Educ. Telecomms. Consortium, Inc. v. FCC*, 518 U.S. 727, 744 (1996) (plurality opinion of Breyer, J.); *Sable Communications, Inc. v. FCC*, 492 U.S. 115, 127 (1989).

49. *Telecomms. Research & Action Ctr. v. FCC*, 801 F.2d 501, 508 (D.C. Cir. 1986) (labeling this treatment of scarcity as the source of much "analytical confusion"), *cert. denied*, 482 U.S. 919 (1987).

50. *See* *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 627 (1994) (describing cable as a way "to bring broadcast television signals to remote or mountainous communities[,] intended "not to replace broadcast television but to enhance it"); DANIEL L. BRENNER & MONROE E. PRICE, *CABLE TELEVISION AND OTHER NONBROADCAST VIDEO: LAW AND POLICY* § 1.02 (1992) (explaining the early history and purposes of cable television).

51. *See* *United States v. Southwestern Cable Co.*, 392 U.S. 157 (1968).

52. H.R. REP. NO. 1635, at 2d Sess. 7 (1966).

53. *FCC v. Midwest Video Corp.*, 440 U.S. 689, 707 (1979).

first amendment in a cable-related dispute, the Court in 1986 conceded that cable “plainly implicate[s] First Amendment interests” but did not embrace any particular standard of review.⁵⁴ The Court’s 1991 decision in *Leathers v. Medlock*,⁵⁵ which upheld Arkansas’s decision to subject cable services to sales tax while exempting or excluding “newspapers, magazines, and satellite broadcast services,”⁵⁶ invited precisely the sort of distinction that separated the treatment of broadcasters in *Red Lion* from the treatment of print journalists in *Tornillo*.

The Court stopped short of equating cable with broadcasting.⁵⁷ In the first of two cases named *Turner Broadcasting System, Inc. v. FCC*,⁵⁸ both involving the FCC’s requirement that cable operators transmit the signals of conventional broadcasters who request carriage, the Court reasoned that “[t]he justification for [its] distinct approach to” first amendment claims arising in the context of broadcasting “rests upon the unique physical limitations of the broadcast medium.”⁵⁹ *Turner I* held that *Red Lion* and other “broadcast cases are inapposite” because cable “does not suffer the inherent limitations that characterize the broadcast medium.”⁶⁰ Recognizing “rapid advances in fiber optics and digital compression technology,” the Court predicted the quick elimination of “practical limitation[s] on the number of speakers who may use the cable medium.”⁶¹ The Court also downplayed “any danger of physical interference between two cable speakers attempting to share the same channel.”⁶² *Turner I* expressly rejected the proposition that “the foundation of [the Court’s] broadcast jurisprudence is not the physical limitations of the electromagnetic spectrum, but rather the ‘market dysfunction’ that characterizes the broadcast market.”⁶³ The “mere assertion of dysfunction or failure in a speech market, without more,” the Court held, “is not sufficient to shield a speech regulation from

54. *City of Los Angeles v. Preferred Communications, Inc.*, 476 U.S. 488, 494 (1986).

55. 499 U.S. 439 (1991).

56. *Id.* at 443.

57. *Hear generally THE BUGGLES, Video Killed the Radio Star, on THE AGE OF PLASTIC* (UNI/Mercury 1980).

58. 512 U.S. 622 (1994).

59. *Id.* at 637.

60. *Id.* at 638-39; *see also id.* at 639 (“This is not to say that the unique physical characteristics of cable transmission should be ignored when determining the constitutionality of regulations affecting cable speech. They should not.”).

61. *Id.* at 639.

62. *Id.*

63. *Id.*

the First Amendment standards applicable to nonbroadcast media.”⁶⁴

Turner I nevertheless declined to apply *Tornillo*’s strict scrutiny standard. “Given cable’s long history of serving as a conduit for broadcast signals,” the Court observed, “there appears little risk that cable viewers would assume that the broadcast stations carried on a cable system convey ideas or messages endorsed by the cable operator.”⁶⁵ The Court placed even greater weight on “an important technological difference between newspapers and cable television.”⁶⁶ Whereas a “daily newspaper,” even if it enjoys a local monopoly, “does not possess the power to obstruct readers’ access to other competing publications,” the “physical connection between the television set and the cable network gives the cable operator bottleneck, or gatekeeper, control over most (if not all) of the television programming that is channeled into the subscriber’s home.”⁶⁷

Despite placing exclusive emphasis on the physical characteristics of cable television, in stark contrast with *Red Lion*’s more nuanced cluster of rationales, *Turner I* did imitate *Red Lion*’s methodology in searching for a conduit-specific first amendment approach for cable. Neither of these aspects of *Turner I* controlled the high court’s next cable case. *Denver Area Educational Telecommunications Consortium, Inc. v. FCC*,⁶⁸ decided in 1996, involved a battery of statutory obligations directing cable operators to enhance the ability of subscribers to avoid or reject “indecent” programming. No fewer than five opinions advocated distinct approaches to first amendment standards of review in a new communications medium. None commanded a majority of the Court.

Justice Breyer’s plurality opinion for four Justices pointedly declared that “no definitive choice among competing analogies (broadcast, common carrier, bookstore)” could permit the Court “to declare a rigid single standard, good for now and for all future media and purposes.”⁶⁹ Justice Stevens’s concurrence declared it “unwise to take a categorical approach to the resolution of novel First Amendment questions arising in an industry as dynamic as

64. *Id.* at 640.

65. *Id.* at 655.

66. *Id.* at 656.

67. *Id.* at 656.

68. 518 U.S. 727 (1996).

69. *Id.* at 741-42 (plurality opinion of Breyer, J.).

this.”⁷⁰ Justice Souter, also writing separately in support of Justice Breyer’s plurality opinion, noted that “[a]ll of the relevant characteristics of cable are presently in a state of technological and regulatory flux.”⁷¹ As “broadcast, cable, and the cybertechnology of the Internet and the World Wide Web approach the day of using a common receiver,” Justice Souter surmised, “we can hardly assume that standards for judging the regulation of one of them will not have immense, but now unknown and unknowable, effects on the others.”⁷² Combining his skepticism that “it will continue to make sense to distinguish cable from other technologies” with his faith that “changes in these regulated technologies will enormously alter the structure of regulation itself,” Justice Souter confessed the “real possibility that ‘if we had to decide today . . . just what the First Amendment should mean in cyberspace, . . . we would get it fundamentally wrong.’”⁷³

Justice Kennedy excoriated the plurality for its refusal to anchor its analysis to existing first amendment models. “When confronted with a threat to free speech in the context of an emerging technology,” he urged, the Court “ought to have the discipline to analyze the case by reference to existing elaborations of constant First Amendment principles.”⁷⁴ He went so far as to describe “the creation of standards and adherence to them” as “the central achievement of . . . First Amendment jurisprudence”: “Standards are the means by which we state in advance how to test a law’s validity, rather than letting the height of the bar be determined by the apparent exigencies of the day.”⁷⁵

Despite disagreeing with Justice Kennedy on the particulars of the disputed indecency rules, Justice Thomas accepted Justice Kennedy’s approach of adhering to established first amendment models. Condemning the “doctrinal wasteland” to which the Court had consigned the free speech rights of cable operators, Justice Thomas suggested “that cable operators should enjoy the same First Amendment rights as the nonbroadcast media.”⁷⁶ He

70. *Id.* at 768 (Stevens, J., concurring); cf. *MCI Telecomm. Corp. v. Am. Tel. & Tel. Co.*, 512 U.S. 218, 235 (1994) (Stevens, J., dissenting) (“The communications industry has an unusually dynamic character.”).

71. *Denver*, 518 U.S. at 776 (Souter, J., concurring).

72. *Id.* at 776-77.

73. *Id.* at 777 (quoting Lawrence Lessig, *The Path of Cyberlaw*, 104 *YALE L.J.* 1743, 1745 (1995)).

74. *Id.* at 781 (Kennedy, J., concurring in part, concurring in the judgment in part, and dissenting in part).

75. *Id.* at 785.

76. *Id.* at 813-14 (Thomas, J., concurring in part and dissenting in part). This passage represents a transparent allusion to former FCC chairman Newton Minow’s

took pains to throttle *Red Lion's* dictum that “[i]t is the right of the viewers and listeners, not the right of the broadcasters, which is paramount.”⁷⁷ Concluding that *Turner I* had undermined *Red Lion's* emphasis on “the rights of viewers, at least in the abstract” and “in the cable context,” Justice Thomas declared that “[i]t is the [cable] operator’s right that is preeminent.”⁷⁸

One term after *Denver*, the Court framed its approach for evaluating first amendment claims involving the Internet. True to form, the pivotal controversy hinged on the Telecommunications Act of 1996,⁷⁹ a statute that notoriously ignored the Internet⁸⁰ except as a pornographic medium.⁸¹ *Reno v. ACLU*,⁸² which challenged the Communications Decency Act (title V of the epochal 1996 Act), reinstated *Red Lion's* multifaceted approach. The contrast with the doctrinal chaos of *Denver* was striking. The Court held that the Internet lacked three essential features that justified the relaxation of first amendment scrutiny in broadcasting: “the history of extensive Government regulation of the broadcast medium; the scarcity of available frequencies at its inception; and [broadcasting’s] ‘invasive’ nature.”⁸³ Justice Stevens’s opinion for the Court observed that “the vast democratic forums of the Internet” have never “been subject to the type of government supervision and regulation that has attended the broadcast industry.”⁸⁴ In light of this medium’s relative freedom from regulation, he detected no risk “that members of the [Internet community] might infer some sort of official or societal approval of” content on the Internet.⁸⁵ He also noted that “the Internet is not as ‘invasive’ as radio or television.”⁸⁶ “Finally,”

description of broadcast television as a “vast wasteland.” See Newton N. Minow, *Address to National Association of Broadcasters* (1961), quoted in JONATHAN W. EMORD, FREEDOM, TECHNOLOGY, AND THE FIRST AMENDMENT 198 (1991) and reprinted in NEWTON N. MINOW & CRAIG L. LAMAY, ABANDONED IN THE WASTELAND: CHILDREN, TELEVISION, AND THE FIRST AMENDMENT app. 2. at 188 (1995).

77. *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 390 (1969), quoted in *Denver*, 518 U.S. at 816 (Thomas, J., concurring in part and dissenting in part).

78. *Denver*, 518 U.S. at 816 (Thomas, J., concurring in the judgment in part and dissenting in part).

79. Pub. L. No. 104-104, 110 Stat. 56 (codified in scattered sections of 47 U.S.C.).

80. See generally John D. Podesta, *Unplanned Obsolescence: The Telecommunications Act of 1996 Meets the Internet*, 45 DEPAUL L. REV. 1093 (1996).

81. See Barbara Esbin, *Internet over Cable: Defining the Future in Terms of the Past*, 7 COMM'LAW CONSPECTUS 37, 55 (1999) (noting that Congress paid more attention to the Internet’s pornographic potential than any other aspect of what was then an emerging mode of communication).

82. 521 U.S. 844 (1997).

83. *Id.* at 868 (citations omitted).

84. *Id.* at 868-69.

85. *Id.* at 869 n.33.

86. *Id.* at 869.

Justice Stevens added, “unlike the conditions that prevailed when Congress first authorized regulation of the broadcast spectrum, the Internet can hardly be considered a ‘scarce’ expressive commodity.”⁸⁷

IV. EXIT THE LION

You know it don't take much intelligence to get yourself into a nailed-up coffin But who in hell ever got himself out of one without removing one nail?

- TENNESSEE WILLIAMS, *THE GLASS MENAGERIE*⁸⁸

If it were not so firmly anchored in the law of broadcasting, *Red Lion* might serve admirably as a constitutional law mascot for all information platforms. Supplementing the justifications articulated by *Red Lion* with *Pacifica*'s “pervasiveness” rationale yields something quite close to the multifaceted approach endorsed in *Reno v. ACLU*: “the history of extensive Government regulation,” “the scarcity of available” avenues for expression, and the contested medium’s “invasive nature.”⁸⁹ Throughout this jurisprudential sequence, the Supreme Court feels a palpable obligation to pay homage to *Red Lion*, if only to distinguish broadcasting from every new communications medium it encounters.

Indeed, the greatest doctrinal satisfaction comes from dissecting the exceptional cases in which the Court has either ignored or mishandled *Red Lion*. For instance, *Sable Communications, Inc. v. FCC*,⁹⁰ never pondered the appropriate application of *Red Lion* to “dial-a-porn” cases. Why did the Supreme Court forgo the “trivial ritual” of determining the proper level of first amendment scrutiny for restrictions on speech carried over telephone wires?⁹¹ The answer is quite simple: carriage on two-way, switched telephone networks adds no expressive significance to sexually explicit messages. Sometimes a medium is just a medium.⁹²

87. *Id.* at 870.

88. WILLIAMS, *supra* note 4, at 27.

89. *Reno v. ACLU*, 521 U.S. at 868 (citations omitted).

90. 492 U.S. 115 (1989).

91. *Cf.* Thomas G. Krattenmaker & L.A. Powe, Jr., *Converging First Amendment Principles for Converging Communications Media*, 104 *YALE L.J.* 1719, 1719 (1995) (describing the tendency of analysts to proclaim the convergence of “telecommunications technologies and media” as the field’s favorite “trivial ritual”).

92. *Contra* MARSHALL McLuhan, *UNDERSTANDING MEDIA: THE EXTENSIONS OF MAN* 7 (1964) (“The medium is the message.”).

An even more striking treatment of *Red Lion* took place in the case that rejected it most emphatically. Alone among the high court's decisions since 1969, *Turner I* insisted that *Red Lion* involved nothing but physical scarcity, as though the decision to uphold the fairness doctrine rested solely on the physical characteristics of the electromagnetic spectrum. That assertion does not withstand a careful rereading of *Red Lion*. *Turner I* rightly declined to let first amendment analysis hinge solely on the presence of a monopoly in any speech market,⁹³ but it erred in insisting that "Congress granted must-carry privileges to broadcast stations [solely] on the belief that the broadcast television industry [was] in economic peril due to the physical characteristics of cable transmission and the economic incentives facing the cable industry."⁹⁴ *Red Lion* at a minimum counsels consideration of "the Government's role in allocating . . . frequencies" and other planks of the information platform at issue.⁹⁵ Proper application of *Red Lion* would have directed the Court's attention to an extensive history demonstrating how "Congress preferred broadcasters over cable programmers based on the content . . . each group offers."⁹⁶

A deeper problem, however, stems from *Red Lion*'s strategy of inspecting every novel communications medium as prelude to fixing the appropriate level of first amendment review. That aspect of *Red Lion* typifies what appears to be an extensive but imperfectly limned jurisprudence on *conduit*-based regulation of speech. Somewhere between the doctrinal extremes of presumptive strict scrutiny for content-based regulation of speech⁹⁷ and the radically weaker review drawn by restrictions on the time, place, or manner of speech,⁹⁸ lawmakers routinely subject specific *conduits* to regulations that may target the economic struc-

93. See *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 640 (1994), *aff'd*, 520 U.S. 180 (1997).

94. *Id.* at 659.

95. *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 400 (1969).

96. *Turner I*, 512 U.S. at 658-59 (denying nonetheless that Congress expressed a content-based preference for broadcasting). See generally Jim Chen, *The Last Picture Show (on the Twilight of Federal Mass Communications Law)*, 80 MINN. L. REV. 1415 (1996); Christopher S. Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 YALE J. ON REG. 171 (2002).

97. See, e.g., *Erznoznick v. City of Jacksonville*, 422 U.S. 205, 209 (1975); *Cohen v. California*, 403 U.S. 15 (1971).

98. See, e.g., *City of Renton v. Playtime Theatres, Inc.* 475 U.S. 41, 47 (1986) ("[T]ime, place, and manner regulations are acceptable so long as they are designed to serve a substantial governmental interest and do not unreasonably limit alternative avenues of communication."); see also, e.g., *Ward v. Rock Against Racism*, 491 U.S. 781 (1989); *City Council v. Taxpayers for Vincent*, 466 U.S. 789 (1984); *Kovacs v. Cooper*, 336 U.S. 77 (1949).

ture of these information platforms but invariably also affect their underlying *content*. Systematically untangling that doctrinal mess vastly exceeds the scope of this article. It is difficult enough to bridge the temporal chasm between *Red Lion* and the ensuing battery of cases that confined *Red Lion* to its origins in broadcasting. “[T]ime,” after all, “is the longest distance between two places.”⁹⁹

Red Lion made two crucial contributions to free speech jurisprudence. First, it declared that courts should study the characteristics of the conduit in which speech is transmitted and should be prepared if necessary to dilute constitutional protection for the expression of ideas. Second, it concluded that broadcasting, as a conduit, merited less rigorous first amendment review not only because of scarcity but also because the government played a prominent role in structuring the broadcast industry and because the public at large retained its interest in access to this unique, intensively regulated medium. Almost all of the judicial and academic objections to *Red Lion* have addressed scarcity, a concept that represented a mere fragment of the second holding. Whether *Red Lion*’s analysis of broadcasting may have been defective initially and whether that analysis is obsolete today are both beside the point. It is *Red Lion*’s prescription of conduit-based first amendment review—its implicit exhortation for the development of a separate jurisprudence on conduit-based regulation of speech—whose time has passed. Technology evolves, but the irreconcilable imperative of protecting expressive freedom while accommodating legitimate regulation will endure forever.

Only by stressing the dynamic over the static can we “find in motion what was lost in space.”¹⁰⁰ Let us therefore bid farewell to *Red Lion*, flawed but faithful servant of the law. Across the decades *Red Lion* nursed the flames of a doctrine whose specific application to broadcasting was unjustly condemned and whose broader impact on free speech jurisprudence in a technologically dynamic world has gone unnoticed. “For nowadays the world is lit by lightning! Blow out your candles . . . - and so goodbye.”¹⁰¹

99. WILLIAMS, *supra* note 4, at 96.

100. *Id.* at 97.

101. *Id.*

CULTIVATING OPEN INFORMATION PLATFORMS: A LAND TRUST MODEL

MOLLY SHAFFER VAN HOUWELING*

INTRODUCTION

James Boyle has led a recent call for intellectual property “environmentalism”—a movement to fend off perceived threats to the public interest posed by expansions in the scope and term of intellectual property protection.¹ Inspired in part by Boyle’s message, a number of organizations have sprung up that aspire to expand and cultivate the body of intellectual works that are not subject to proprietary control.²

The Internet’s original development as a non-proprietary information platform is another source of inspiration for this incipient movement.³ The Internet is built on a suite of protocols—

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1. See, e.g., James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, 47 DUKE L.J. 87, 108-16 (1997); James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*, 39-43 (paper presented at the Duke conference on the Public Domain, Nov. 2001), *discussion draft available at* <http://www.law.duke.edu/pd/papers/boyle.pdf>; see also Seth Shulman, *Intellectual Property Ecology*, TECHNOLOGY REVIEW, Mar. 2002, at 87, *available at* <http://www.techreview.com/articles/shulman0302.asp>.

2. See, e.g., Center for the Public Domain, <http://www.centerpd.org.htm> (“Through grant making, original research, conferences, and collaborative programs, the Center seeks to call attention to the importance of the public domain and spur effective, practical solutions and responses.”); Public Knowledge, <http://www.bollier.org/public.htm> (“Public Knowledge is a new public-interest advocacy organization dedicated to fortifying and defending a vibrant information commons.”). I am a board member and former Executive Director of Creative Commons, a non-profit corporation founded by Boyle, among others, and committed to facilitating sharing of intellectual property. See Creative Commons, <http://www.creativecommons.org>; see also LAWRENCE LESSIG, *THE FUTURE OF IDEAS* 255 (2001) (describing Creative Commons, of which he is Chairman, as an “intellectual property conservancy”).

3. See Philip J. Weiser, *Law and Information Platforms*, 1 J. TELECOMMS. & HIGH TECH. L. 1 (2002) (explaining concept of “information platform”).

rules for communication between networked computers—over which no one claims ownership.⁴ Standardization around these protocols results in interoperability—everyone using the Internet can communicate with everyone else regardless of their hardware or operating system. The absence of proprietary claims on the protocols means that no one extracts monopoly rents from their use. Many commentators attribute the growth of the Internet to the free and universal availability of its public domain underpinnings.⁵

The first generation of public domain Internet protocols was developed primarily by academics and government researchers who may not have needed the incentives of intellectual property to motivate their innovations.⁶ Today, by contrast, much Internet innovation is done by the private sector.⁷ But some profit-motivated technologists still pursue a strategy of permitting free and unconditional access to the protocols they develop in order to promote interoperability, and thus to maximize the size of the network with which their products can communicate.⁸ These architects of open information platforms face two related challenges: “pollution” and “ambush.”

4. See, e.g., TIM BERNERS-LEE, *WEAVING THE WEB: THE ORIGINAL DESIGN AND ULTIMATE DESTINY OF THE WORLD WIDE WEB BY ITS INVENTOR* 74 (1999) (describing the decision to dedicate HTML, the basic language for web publishing, to the public domain); Mark A. Lemley, *Standardizing Government Standard-Setting Policy for Electronic Commerce*, 14 *BERKELEY TECH. L.J.* 745, 752 (1999) (“TCP/IP and HTML are good examples of public domain standards . . .”).

5. See, e.g., Lemley, *supra* note 4, at 752. Lemley contends:

The way to achieve a truly open, interoperable standard is to put the standard itself in the public domain. . . . One can imagine a world in which Microsoft owned the intellectual property rights in both TCP/IP and HTML, but it is hard to believe that the course of Internet development would have been the same.

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Id.; see also LESSIG, *supra* note 2, at 57 (“Not strong, perfect control by proprietary vendors, but open and free protocols, as well as open and free software that ran on top of those protocols, these produced the Net.”); ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *THE ECONOMIC AND SOCIAL IMPACTS OF ELECTRONIC COMMERCE: PRELIMINARY FINDINGS AND RESEARCH AGENDA 1* (1999) (“The widespread adoption of the Internet as a platform for business is due to its non-proprietary standards and open nature . . .”).

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6. See Barry M. Leiner et al., *A Brief History of the Internet*, INTERNET SOCIETY, at <http://www.isoc.org/internet/history/brief.shtml> (last revised Aug. 4, 2000).

7. See *id.*

8. See, e.g., CARL SHAPIRO & HAL R. VARIAN, *INFORMATION RULES* 196-203 (1999); cf. Philip J. Weiser, *Internet Governance, Standard-Setting, and Self-Regulation*, 28 *N. KY. L. REV.* 822, 831 (2001) (chronicling this Internet history and predicting that “[a]s the stakeholders in the future of the Internet become more diverse and more concerned with the impact of the Internet’s development on their profits, stable, open, and end-to-end-based standards may well become the exception, not the norm”).

Observers have raised a cautionary flag about protocols that come with no proprietary strings attached.⁹ The fear is that public domain protocols are subject to “pollution” by entities that hope that their proprietary variations of the protocols will eventually trump the public domain originals.¹⁰ Some inventors who profess commitment to interoperability and open protocols point to the specter of this sort of pollution to justify retaining proprietary control over technologies (in the form of patent, copyright, or trademark protection) in order to forbid other developers’ proprietary variations.¹¹

This type of proprietary pollution control poses its own problem: potential adopters cannot be certain that a company that retains proprietary control over a protocol that is initially available on generous terms will not use that control to extract its own monopoly rents in the future. The intellectual property holder could commit an “intellectual property ambush” by changing the terms on which it makes the protocol available to adopters who have become dependent upon it.¹²

In this essay I describe the dual dilemma of pollution and ambush and propose a potential solution suggested by Boyle’s analogy to the environmental movement: A “land trust” for intellectual property could serve as a trusted party to whom an inventor could assign his rights for the purposes of pollution control and ambush prevention. I close by outlining my plan for future exploration and development of this proposal.

I. THE POLLUTION PROBLEM

Protocol “pollution” occurs when a technologist creates a variation on an existing protocol and makes a proprietary claim to

9. See, e.g., Michael J. Schallop, *The IPR Paradox: Leveraging Intellectual Property Rights to Encourage Interoperability in the Network Computing Age*, 28 AIPLA Q.J. 195 (2000); Mark A. Lemley, *The Law and Economics of Internet Norms*, 73 CHI.-KENT L. REV. 1257, 1288 (1998).

10. See, e.g., Lemley, *supra* note 9, at 1288. As Lemley explains: [A] number of the “open systems” on the Net are open only because a unified set of code is made available to everyone. There is some reason to think that this may change in the future. For example, Microsoft might benefit from splitting a standard like HTML or Java into incompatible, competing programs, because Microsoft would likely win the ensuing competition.

Id.

11. A Sun Microsystems attorney has spelled out this argument in detail. See Schallop, *supra* note 9.

12. Mark Lemley and David McGowan have raised the ambush possibility with regard to Sun Microsystems’ Java technology. Mark Lemley & David McGowan, *Could Java Change Everything? The Competitive Propriety of a Proprietary Standard*, 43 ANTITRUST BULL. 715, 760 (1998).

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the variation or otherwise uses the variation to undermine the original.¹³ One example is Microsoft's treatment of Kerberos. Kerberos is an authentication protocol developed at MIT and published by the Internet Engineering Task Force (IETF).¹⁴ Although "Kerberos" is a trademark of MIT, and MIT holds copyright in its implementation of the protocol (which it licenses without charge and with few conditions),¹⁵ no one has claimed a proprietary interest in the protocol itself. Microsoft (or anyone else) is therefore free to implement the protocol in its operating systems, or to modify the protocol as it sees fit. Microsoft in fact implemented a proprietary variation of the Kerberos protocol in its Windows 2000 operating systems. The variation allegedly made it difficult for non-Windows servers to interact with Windows PCs in the same way that Windows servers could.¹⁶

The developers of Kerberos were dismayed that a protocol they had developed and shared with the public for the purpose of promoting interoperability was being used to benefit a closed, incompatible system.¹⁷ As one of the original developers put it, "[t]his completely defeats the IETF's interoperability goals."¹⁸

The perceived threat posed by protocol pollution is that the polluter will extend the public domain protocol in a way that

13. Some observers refer to this phenomenon as "hijacking." See, e.g., SHAPIRO & VARIAN, *supra* note 8, at 257 ("Open standards can . . . be 'hijacked' by companies seeking to extend them in proprietary directions, and thus in time gain control over the installed base."). I instead use the term "pollution," which was used in internal Microsoft documents to describe the company's strategy with regard to Java, an instance of attempted pollution that I describe below. See Memorandum of the United States in Support of Motion for Preliminary Injunction at 63, *United States v. Microsoft*, 84 F. Supp. 2d 9 (D.D.C. 1999) (Nos. 98-1232, 98-1233), available at <http://www.usdoj.gov/atr/cases/f1700/1762.htm> (last visited May 25, 2002) (quoting Microsoft documents describing the strategy to "[k]ill cross-platform Java by grow[ing] the polluted Java market.").

14. See Request for Comments 1510: The Kerberos Network Authentication Service (V5), at <http://www.ietf.org/rfc/rfc1510.txt> (Sept. 1993).

15. See Kerberos V5 Unix User's Guide, at <http://web.mit.edu/kerberos/www/krb5-1.2/krb5-1.2.4/doc/user-guide.html#SEC1> (Feb. 27, 2002).

16. See Declaration of Rebecca M. Henderson at paras. 38, 50-51, *United States v. Microsoft*, 97 F. Supp. 2d 59 (D.D.C. 2000) (Nos. 98-1232, 98-1233), available at <http://www.usdoj.gov/atr/cases/f4600/4644.htm> (last visited May 25, 2002); Andrew Leonard, *Embrace, Extend, Censor*, SALON.COM, at http://www.salon.com/tech/log/2000/05/11/slashdot_censor (May 11, 2000); Dominic Gates, *Microsoft's Kerberos Shuck and Jive*, THE INDUSTRY STANDARD, at <http://www.thestandard.com/article/0,1902,14996,00.html> (May 11, 2000).

17. Telephone Interview with Theodore Ts'o, former Kerberos Development Team Leader (June 3, 2002).

18. See *Kerberos, PACs, and Microsoft's Dirty Tricks*, at <http://slashdot.org/article.pl?sid=00/05/02/158204> (May 5, 2000) (quoting letter from Jeremy Allison and former Kerberos Development Team Leader Theodore Ts'o) (confirmed in telephone interview with Theodore Ts'o, *supra* note 17).

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reduces interoperability with products implementing the original protocol. If the polluter has sufficient market power, it may then be able to attract users away from those products that use the original; using the proprietary version maximizes interoperability with the polluter's installed base while it reduces overall interoperability. Pollution can thus discourage creation of public domain protocols by developers who are incentivized by the prospect of maximizing interoperability across the board.

The pollution of public domain protocols has been referred to as the "embrace, extend, and extinguish" strategy.¹⁹ During the Microsoft antitrust trial the Government claimed that Microsoft attempted to "embrace existing Internet standards, 'extend' them in incompatible ways, and thereby 'extinguish' competitors."²⁰ In addition to testimony about Kerberos, the Government introduced testimony that Microsoft intended to extend HTML (the basic public domain language for web pages) "to the point where it was incompatible with the Netscape browser and to encourage people to develop to their version of HTML so that pages couldn't be read with Netscape's browser."²¹ A public domain standard developed for the express purpose of interoperability could thus be leveraged to destroy interoperability (and the competitors who rely on it).

II. PROPRIETARY POLLUTION CONTROL

Faced with the pollution threat, some proponents of cross-platform interoperability are reluctant to put protocols and related technologies in the public domain with no strings attached. For example, Sun Microsystems developed Java, a programming language and associated technologies, as a "write once, run anywhere" solution for cross-platform application development.²² Concerned that incompatible Java implementations would threaten interoperability, Sun conditioned licenses for developing Java-based products and using Java logos on compliance with compatibility testing.²³

19. See, e.g., Plaintiffs' Joint Proposed Findings of Fact at para. 91.3.2, *United States v. Microsoft*, 84 F. Supp. 2d 9 (D.D.C. 1999) (Nos. 98-1232, 98-1233), available at <http://www.usdoj.gov/atr/cases/f2600/2613-1.htm>.

20. *Id.*

21. *Id.*, at para. 91.3.2.ii; see also SHAPIRO & VARIAN, *supra* note 8, at 257.

22. See, e.g., Matt Curtin, *Write Once, Run Anywhere: Why it Matters*, at <http://java.sun.com/features/1998/01/wora.html> (last visited Mar. 27, 2002).

23. See, e.g., *Sun Microsystems, Inc. v. Microsoft Corp.*, 188 F.3d 1115, 1118 (9th Cir. 1999); see also SHAPIRO & VARIAN, *supra* note 8, at 257 ("Sun has been reluctant to give up control over the development of Java, fearful that without a champion,

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Microsoft claimed to support the Java technologies.²⁴ But, in fact, “developers who . . . used Microsoft’s tools to develop what Microsoft led them to believe were cross-platform [Java] applications ended up producing applications that would run only on the Windows operating system.”²⁵ When Microsoft developed these polluted Java tools, Sun (citing its license provisions) sued for copyright infringement and unfair competition.²⁶ The case was eventually settled for twenty million dollars.²⁷ A Sun lawyer has argued that Sun’s exercise of its proprietary claims to Java is an example of a successful strategy for promoting interoperability and avoiding pollution.²⁸ Several observers of the Kerberos controversy suggested that the developers of Kerberos should have taken this Sun approach—preventing (or at least responding to) proprietary pollution of the open protocol by asserting their own proprietary rights over Kerberos and imposing openness and/or compatibility requirements on subsequent developers.²⁹

Leveraging proprietary claims in order to promote open standards and interoperability is also promoted in the software context by proponents of the GNU³⁰ General Public License (GPL). The GPL gives licensees permission to copy, modify, and redistribute copyrighted software under certain conditions.³¹

Java could fragment.”); Tineke M. Egyedi, *Why Java Was – Not – Standardized Twice*, 23 *COMPUTER STANDARDS & INTERFACES* 253, 256 (2001).

24. See, e.g., *United States v. Microsoft*, 253 F.3d 34, 74 (D.C. Cir. 2001).

25. *Id.* at 76.

26. *Sun Microsystems*, 188 F.3d at 1118.

27. See Stephen Shankland et al., *Sun, Microsoft Settle Java Suit*, CNET NEWS.COM, at <http://news.cnet.com/news/0-1003-200-4578025.html> (Jan. 23, 2001).

28. See Schallop, *supra* note 9, at 262-63. As Schallop notes:

Software patent protection, as well as software copyright protection and trademark (e.g., logo) protection, in combination with contractual means, typically through public licensing, is increasingly being used to ensure compliance over open or published standards. The compliance measures advantageously maintain interoperability and prevent fragmentation of the open standard. A license to a software standard that requires the passing of certain defined compliance testing measures can be an effective use of IPR as leverage to promote interoperability.

Id.

29. See, e.g., Tim O’Reilly, *Is Open Source Un-American?*, at <http://www.onlamp.com/pub/a/onlamp/2001/03/08/unamerican.html> (Mar. 8, 2001); Evan Leibovitch, *Fatal Flaw in BSD?*, ZDNET TECH UPDATE, at <http://techupdate.zdnet.com/techupdate/stories/main/0,14179,2582875.html> (June 6, 2000). But see James Howard, *Kerberos and the GPL*, ZDNET NEWS, at <http://zdnet.com.com/2100-11-521682.html> (June 20, 2000).

30. See GNU Project, at <http://www.gnu.org> (last modified April 25, 2002) (“The GNU Project was launched in 1984 to develop a complete Unix-like operating system which is free software: the GNU system. (GNU is a recursive acronym for ‘GNU’s not UNIX’; it is pronounced ‘guh-NEW’.)”).

31. See GNU General Public License Version 2, at <http://www.gnu.org/licenses/gpl.html> (June, 1991).

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One key condition is that redistributions of the software's object code (strings of machine-readable 0s and 1s) must be accompanied by corresponding source code (the language in which the software was originally programmed, which can be understood by human programmers).³² Derivative works must also be accompanied by source code and must be licensed under the GPL.³³ GPL proponents argue that the license's proprietary restrictions undermine attempts to "tak[e] the result of open projects and standards, and add[] incompatible . . . features in closed source."³⁴ A licensee that incorporates modified GPL-licensed software into its products cannot undermine interoperability by keeping the details of its modification secret (and, thus, difficult for others to build upon). Under the GPL, the licensee must release the source code along with any modifications.

It is not clear that the GPL or any other copyright-based license would have been an effective pollution control measure for Kerberos. Copyright does not generally protect the purely functional aspects of a work, which may be all that Microsoft copied from the Kerberos protocol.³⁵ But the GPL illustrates a specific implementation of the general concept of pollution control by means of intellectual property protection—which could be ap-

32. *Id.* para. 3.

33. *Id.* paras. 2-3. The GPL thus uses property rights to create a sort of "limited public commons," where certain uses of the resource are limited to insiders who are defined by their willingness to make contributions back to the group (here, via the requirement that distributions of derivative works be accompanied by source code and licensed under the GPL). See generally Carol M. Rose, *The Several Futures of Property: Of Cyberspace and Folk Tales, Emission Trades and Ecosystems*, 83 MINN. L. REV. 129, 156 (1998) (describing "limited common property—a regime that holds some resource as a commons among a group of 'insiders', but as an exclusive right against 'outsiders'").

34. Bruce Perens et al., *Free Software Leaders Stand Together*, at <http://perens.com/Articles/StandTogether.html> (last visited June 2, 2002); see also Nicholas Petreley, *Sun Should go for Broke on Open Source Java and Scare Microsoft Away in the Bargain*, INFO WORLD, at <http://www.infoworld.com/articles/op/xml/00/11/06/001106oppetreley.xml> (last visited Mar. 19, 2002) ("[T]he GPL prevents companies such as Micro-soft [sic] from modifying the source code without redistributing their modifications back to the community. This is anathema to Microsoft."); Eben Moglen, *Anarchism Triumphant: Free Software and the Death of Copyright*, 4 FIRST MONDAY 8 (Aug. 2, 1999), at http://www.firstmonday.dk/issues/issue4_8/moglen/. Moglen emphasizes the certainty that the GPL provides for users:

Users of GPL-licensed code, including those who purchase software and systems from a commercial reseller, know that future improvements and repairs will be accessible from the commons, and need not fear either the disappearance of their supplier or that someone will use a particularly attractive improvement or a desperately necessary repair as leverage for "taking the program private."

Id.

35. Telephone Interview with Theodore Ts'o, *supra* note 17.

plied to address protocol pollution more directly by conditioning patent and/or trademark licenses on promises of openness and interoperability.

III. INTELLECTUAL PROPERTY AMBUSH

The problem with protecting interoperability via proprietary control is that a developer committed to maximizing interoperability may change its tack if its technologies succeed in the marketplace. The result has been referred to as an “intellectual property ambush”—users who have come to depend on a protocol that has been shared on generous terms to promote interoperability are faced with new, restrictive terms imposed by the original developer.³⁶

There are plenty of examples and variations of the intellectual property ambush problem that give potential adopters of proprietary protocols and related technologies something to worry about.³⁷ For instance, after the university and research communities spent years improving the Unix operating system, AT&T asserted its right to demand royalties for it.³⁸ As Robert Young recalls:

All the universities and research groups who had helped build Unix suddenly found themselves having to pay for licenses for an [operating system] that they had helped build. They were not happy, but could not do much about it—after all, AT&T owned the copyright to Unix. The other development teams had been helping AT&T at AT&T’s discretion.³⁹

36. See Lemley & McGowan, *supra* note 12, at 760.

37. See, e.g., David A. Balto, Standard Setting in a Network Economy, Speech at Cutting Edge Antitrust Law Seminars International (Feb. 17, 2000), *transcript available at* <http://www.ftc.gov/speeches/other/standardsetting.htm>. Balto notes:

A dominant firm, or a group of firms that sponsors an interface standardization project, might initially sponsor an open standard. They would encourage competitors to make their products interoperable in order to enhance the value of their standard. In particular, they would encourage manufacturers of complementary products to design products for their standard, in hopes that network effects might tip the market in their favor. However, competitive concerns could arise if, once the standard became successful, the sponsor closed the standard.

Id.; see also SHAPIRO & VARIAN, *supra* note 8, at 200 (“[B]eware vague promises of openness.”).

38. See, e.g., Robert Young, *Giving It Away: How Red Hat Software Stumbled Across a New Economic Model and Helped Improve an Industry*, in OPEN SOURCES: VOICES FROM THE OPEN SOURCE REVOLUTION 113, 121 (Chris DiBona et al. eds., 1999).

39. *Id.*; see also Tim O’Reilly, *Open Source and OpenGL*, ASK TIM, at http://www.oreilly.com/ask_tim/opengl_1200.html (Dec. 2000) (“As the early history of Unix shows, a company that has long practiced an open and inclusive style of software development can change its mind and turn on the community that helped

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Fear of this sort of intellectual property ambush may discourage developers from adopting a protocol that is subject to proprietary pollution control.

Proponents of the GPL argue that the terms of that license prevent ambush in the software realm. The basic argument is that even if the holder of copyright to GPL-licensed software decides to change the terms on which the latest version of the software is distributed (perhaps distributing only object code or charging royalties for the use of source code), developers who depend on the software can avoid any restrictive licensing terms by ignoring the copyright holder and improving the original code (which they have been licensed to copy and modify under the GPL) themselves. As Tim O'Reilly puts it, "if an open source project leader fails to keep the trust of his users and developer community, those other developers can take his or her work and build on it independently."⁴⁰

Some observers are less sanguine about the security of the GPL model. David McGowan suggests that in many jurisdictions the permission granted by the GPL could be terminated at any time, leaving licensees with no rights (apart from fair use) to copy or distribute the original copyrighted software.⁴¹

In any event, it is surely the case that the requirements imposed by the GPL (including the requirement to make the source code of derivative works available and to license them under the GPL) do not apply to the copyright holder himself, who of course needs no license to copy, distribute, or make derivative works of software to which he holds the copyright. So copyright holders cannot honestly say, on the basis of the GPL alone, that they are "subject to the same rules as the rest of the community, including giving back modifications."⁴²

The specter of ambush may seem overblown with regard to typical GPL projects, in which the current version of the software

to build and popularize its software."); LESSIG, *supra* note 2, at 50-53 (describing the history of Unix).

40. O'Reilly, *supra* note 39.

41. See David McGowan, *The Legal Implications of Open Source Software*, 2001 U. ILL. L. REV. 241, 299 (2001); see also Declan McCullagh, *Mattel Ruling Confuses Hackers*, WIRED NEWS, Mar. 29, 2000, at <http://www.wired.com/news/business/0,1367,35258-2,00.html> (quoting Professor Eugene Volokh for the proposition that "[n]onexclusive licenses given for free are generally revocable, even if they purport to be irrevocable."). *But see* Declan McCullagh, *Mattel Suit Takes GNU Twist*, WIRED NEWS, at <http://www.wired.com/news/politics/0,1283,35226,00.html> (Mar. 28, 2000) (quoting Professor Eben Moglen for the proposition that "GPL is software that cannot be revoked").

42. *Frequently Asked Questions*, OPENOFFICE.ORG, at <http://www.openoffice.org/FAQs/mostfaqs.html#3> (last updated Aug. 31, 2002).

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may include the contributions of hundreds of copyright holders—each of whom could object if anyone (even a co-contributor) distributed the software on non-GPL terms.⁴³ But the Free Software Foundation,⁴⁴ the non-profit organization that promotes the GPL,⁴⁵ encourages people who make improvements to GPL-licensed software to assign copyrights in their improvements to the holder of copyright in the original software in order to streamline enforcement.⁴⁶ Once the initial developer holds copyright to contributions, he is free to take the whole project private—profiting from the contributions without releasing the source code or licensing the work under the GPL.⁴⁷ Because the GPL imposes no obligations on the copyright holder, it does not prevent this type of ambush.⁴⁸

To bolster the GPL model, developers who want to retain proprietary control over protocols in order to prevent pollution could simply promise adopters that the relevant patent, copyright, and trademark licenses will always be available under the original (or similar) terms. Ambush would trigger liability for breach of contract. The disadvantages of this simple contractual approach are familiar ones. First, privity: the protocol developer might assign the protocol to a third party who is not clearly

43. See McGowan, *supra* note 41, at 259 (“This web of blocking copyrights suggests that, as a practical matter, each contributing programmer would have to agree to privatize the code if it was to be taken private in its most current and complete form.”). I assume for the sake of argument that the project is not a “joint work,” see 17 U.S.C. § 101 (2000).

44. FREE SOFTWARE FOUNDATION, at <http://www.fsf.org/fsf/fsf.html> (last updated July 31, 2001).

45. *Id.*

46. See *Frequently Asked Questions About the GNU GPL*, GNU PROJECT, at <http://www.gnu.org/copyleft/gpl-faq.html#AssignCopyright> (last visited Mar. 7, 2002). This statement on the GNU Project’s website addresses the question of why contributors to Free Software Foundation licensed programs are encouraged to assign their copyright to the Free Software Foundation by explaining:

Our lawyers have told us that to be in the best position to enforce the GPL in court against violators, we should keep the copyright status of the program as simple as possible. We do this by asking each contributor to either assign the copyright on his contribution to the FSF, or disclaim copyright on it and thus put it in the public domain. . . . If you want to make an effort to enforce the GPL on your program, it is probably a good idea for you to follow a similar policy.

Id.

47. See, e.g., Loic Dachary, *SourceForge Drifting*, FSF EUROPE, at <http://fsfeurope.org/news/article2001-10-20-01.en.html> (last updated Feb. 7, 2002); Stephen Shankland, *Open-Source Approach Fades in Tough Times*, ZDNET UK NEWS.COM, at <http://news.zdnet.co.uk/story/0,,t289-s2099534,00.html> (Nov. 20, 2001).

48. See GNU PROJECT, *supra* note 46, at <http://www.gnu.org/copyleft/gpl-faq.html#DeveloperViolate> (last visited Mar. 7, 2002).

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bound by the terms of the contract; or the licensee might sublicense to a subsequent adopter who will not be able to rely on the developer's promises.⁴⁹ Second, reality: the promise of an eventual lawsuit may be cold comfort to those potential adopters who are out-matched by the developer in terms of size and legal wherewithal.

IV. A TRUSTED THIRD-PARTY MODEL FROM THE ENVIRONMENTAL MOVEMENT

Landowners dedicated to conserving open space or wildlife habitats, like interoperability-minded technologists, are faced with the dual dilemma of pollution and ambush. A landowner who wants to ensure that her land is not developed cannot simply abandon it to the "public domain." Without limitations on its use the land may be, literally, polluted. But a landowner who retains ownership of her land may fear ambush—that is, she or her heirs may be tempted in the future to develop the land themselves and to abandon the original conservation goal. Common law privity requirements and related limitations on real covenants, easements, and equitable servitudes limit the extent to which the landowner can make a binding promise that neither she nor her successors will exploit the land.⁵⁰ But state statutes now permit "land trusts"⁵¹—non-profit organizations that pursue conservation goals through acquisition of land and perpetual easements—to help landowners out of the pollution/ambush bind.⁵²

49. Cf. Margaret Jane Radin, *Humans, Computers, and Binding Commitment*, 75 IND. L.J. 1125, 1139-40 (2000) (arguing against validity of "[c]ontracts that run with digital objects and attempt to bind recipients to obligations to all other recipients"); Robert P. Merges, *The End of Friction? Property Rights and Contracts in the "Newtonian World" of On-Line Commerce*, 12 BERKELEY TECH. L.J. 115, 129 (1997) (arguing that the GPL is unenforceable, for lack of privity, against someone who receives software from a licensee). Mark Lemley describes other potential difficulties with enforcing anti-ambush promises that protocol developers and other technologists make to standard setting organizations. See Mark Lemley, *Intellectual Property Rights and Standard Setting Organizations*, CAL. L. REV. (forthcoming 2002) (manuscript at 41-46, on file with author).

50. See generally Andrew Dana & Michael Ramsey, *Conservation Easements and the Common Law*, 8 STAN. ENVTL. L.J. 2, 12-21 (1989) (describing common law limitations).

51. Despite this common name, land trusts are not typically "trusts" in the legal sense. Some organizations that serve the same role call themselves "conservancies" or something else. See THE LAND TRUST ALLIANCE, STARTING A LAND TRUST 1 (1990). "[T]he term *land trust* has no specific legal meaning. . . . [N]ot many [land trusts] are structured as true trusts or even operate under any semblance of trust principles." SALLY K. FAIRFAX & DARLA GUENZLER, CONSERVATION TRUSTS 21 (2001).

52. THE LAND TRUST ALLIANCE, *supra* note 51, at 85.

In many states, land trusts may acquire special “conservation easements” that are exempt from the common law limits on servitudes that run with the land.⁵³ The landowner continues to own title to the land, but the easement binds him and all subsequent landowners to restrictions limiting the land’s uses.⁵⁴ The land trust takes on the responsibility of enforcing the limitations against the landowner and any other would-be developers.⁵⁵

For my purposes here, the key features of the land trust model are these: the property owner assigns at least a partial property interest to a third party; the third party is committed to preventing certain types of exploitation of the property; and the third party can be trusted to forego such exploitation itself. The arrangement is designed to maintain control over the property and to impose restrictions on its use (pollution prevention) without the uncertainty posed by the continued exercise of proprietary control by a potentially profit-motivated owner (ambush prevention).

Like landowners who donate conservation easements to land trusts, interoperability-minded protocol developers could similarly prevent both pollution and ambush by assigning some or all of their rights to a third party that is committed to preserving access to the protocols.⁵⁶ The Free Software Foundation already serves a land-trust-like role by receiving assignments of software copyrights.⁵⁷ The Free Software Foundation encourages contributors to the Foundation’s own projects to assign their copyrights to the Foundation.⁵⁸ The Foundation apparently also welcomes assignments of rights to other GPL-licensed software.⁵⁹ The Free Software Foundation, with its long history of zealous support and advocacy for the GPL, backs up its reputation as a trusted steward of GPL-licensed software with explicit promises to assignors that its distributions of their software will always be

53. See generally Dana & Ramsey, *supra* note 50, at 3 (describing statutory conservation easements and contrasting them with common law rules). R

54. See THE LAND TRUST ALLIANCE, *supra* note 51, at 85. R

55. See THE LAND TRUST ALLIANCE, CONSERVATION OPTIONS 10-11 (1993).

56. David McGowan makes a similar suggestion with regard to open source software. See McGowan, *supra* note 41, at 300. R

57. Although McGowan does not develop the land trust analogy, he does identify the Free Software Foundation as the most obvious trusted third party for purposes of GPL-licensed software. *Id.*

58. See Eben Moglen, *Why the FSF Gets Copyright Assignments from Contributors*, GNU PROJECT, at <http://www.gnu.org/licenses/why-assign.html> (last updated Nov. 4, 2001).

59. See McCullagh, *Mattel Ruling Confuses Hackers*, *supra* note 41 (quoting Free Software Foundation General Counsel Eben Moglen, “[T]he Free Software Foundation strongly urges authors of free software to assign their rights to FSF.”). R

accompanied by the source code, and that it will permit recipients to distribute the source code as well.⁶⁰

The Free Software Foundation's approach mirrors the conservation easement concept. Under the assignment terms the Free Software Foundation agrees to grant to the assigner a non-exclusive right "to use the work as [he] see[s] fit,"⁶¹ analogous to the landowner's continued right under a conservation easement to live on and sell his land. But because the copyright assigner no longer holds copyright to the software (or any "changes and/or enhancements to the software," copyright in which is also assigned to the Free Software Foundation⁶²) he cannot commercially exploit the software by enforcing restrictive terms on anyone else's use of it—just as a landowner may not develop his land in ways prohibited by the conservation easement. In both cases, the donor is relieved of the burden of enforcing his rights against infringers, and the donee is required to enforce those rights per its agreement with the donor. Because the donee, in the case of the Free Software Foundation, is a non-profit organization with a long track record of commitment to free software, its promises will likely inspire more confidence than a commercial software developer's might.

V. EXPANDING THE LAND TRUST MODEL

The Free Software Foundation appears to serve a role analogous to a land trust, and thus helps software developers avoid pollution and credibly renounce ambush. But the Free Software Foundation is devoted to enforcement of only one type of license, the GPL, which applies only to one form of intellectual property, copyright.⁶³ Avoiding protocol pollution may also require reliance on patents (which can protect the functional aspects of protocols, not merely specific copyrighted implementations) or

60. See, e.g., Richard Stallman, *Would Like to Relinquish Copyright to FSF*, at <http://mail.gnu.org/pipermail/web-hurd/2001-May/000281.html> (posted May 31, 2001) (example of assignment agreement between software author and the Free Software Foundation).

61. *Id.*

62. *Id.*

63. In addition to the Free Software Foundation, the newly-formed Software Conservancy has announced that it will serve as an "independent, neutral organization to hold copyright to open source or free software source code." *CollabNet Announces Creation of "The Software Conservancy,"* COLLABNET, at <http://www.collab.net/news/press/2002/softwareconservancy.html> (Feb. 2, 2002); see also THE SOFTWARE CONSERVANCY, at <http://www.tsc.org> (last visited June 2, 2002). Like the Free Software Foundation, the Software Conservancy appears to focus on software copyrights.

trademarks (which can be used to prohibit false claims of compliance with protocol specifications).

The new breed of intellectual property environmentalists could create additional mechanisms for solving the developer's dual dilemma of pollution and ambush, and thus promote the preservation of open information platforms (that is, information platforms safe from proprietary ambush despite their developers' pollution fears). The land trust model could be expanded beyond the limits of the Free Software Foundation to create new avenues for assigning rights to trusted third parties. This essay begins to sketch the justification for such "intellectual property conservancies"⁶⁴ and suggests several questions that I am investigating in ongoing research.

1. What is the best mechanism for ensuring that the trusted third party will enforce pollution controls? Possibilities include: statutorily imposed obligations; contractual commitments to the donor that the intellectual property will be licensed only on certain terms; and trust agreements that impose fiduciary obligations on the conservancy.
2. Should the conservancy have flexibility to change (or discard) pollution control measures if, for example, a donated protocol falls into disuse because of inadequate incentives to update and improve it?
3. How would an intellectual property conservancy accumulate resources adequate to the costly task of enforcing pollution control measures?
4. How can an intellectual property conservancy establish that it can be trusted not to commit its own intellectual property ambush? Structuring the conservancy as a non-profit might remove the direct incentive to ambush, but non-profit structure alone hardly ensures that a conservancy will not be captured by, for example, self-interested donors.
5. Is the incentive of promoting protocol adoption and interoperability sufficient to entice donations of intellectual property to a conservancy? If not, is there a public policy justification for encouraging donations through special tax incentives like those that apply to donations of conservation easements in the land trust context?

64. This terminology has been used elsewhere. See David Bearman, *Intellectual Property Conservancies*, D-LIB MAGAZINE, Dec. 2000, available at <http://www.dlib.org/dlib/december00/bearman/12bearman.html>; Brewster Kahle et al., *Public Access to Digital Material*, available at <http://www.archive.org/news/colloquia/2001/whitepaper.html> (Mar. 5, 2001).

6. Would some developers who might otherwise have incentives to donate intellectual property to a conservancy be discouraged by federal policies that promote proprietary exploitation of government-sponsored research results?⁶⁵
7. Would some developers who might otherwise have incentives to donate intellectual property to a conservancy be dissuaded by the prospect that they could no longer use the donated intellectual property for defensive purposes in an infringement suit against them?⁶⁶
8. Could (or should) an intellectual property conservancy overcome the provision in the Copyright Act that permits authors to terminate transfers of their copyrights after thirty-five years?⁶⁷
9. What type of antitrust scrutiny would be applied to transfers of intellectual property to an intellectual property conservancy?⁶⁸
10. To what extent do standard setting organizations, patent pools, and other entities already follow the land trust model described here?

CONCLUSION

Protocol developers who want to replicate the benefits of the initial suite of open Internet protocols may be discouraged by the threat of protocol pollution; would-be adopters of their protocols may be discouraged by the threat of ambush. Intellectual property conservancies built on the land trust model could help address both of these challenges by enforcing protocol developers' pollution-control preferences while binding them to their promises to forgo ambush. My ongoing research will explore how intellectual property conservancies should be structured to ensure their own viability and trustworthiness and to overcome potential obstacles to donation.

65. See generally Arti K. Rai & Rebecca Eisenberg, *The Public and the Private in Biopharmaceutical Research*, Paper presented at the Duke conference on the Public Domain (Nov. 2001), *discussion draft available at* <http://www.law.duke.edu/pd/papers/raieisen.pdf> (last visited June 25, 2002) (describing the "explicit policy of the U.S. government to promote patenting of government-sponsored research results by universities, government agencies, and other recipients of federal research funds").

66. Cf. McGowan, *supra* note 41, at 301-02 (raising this possibility with regard to the "trusted third-party" solution he discusses in the open source software context).

67. 17 U.S.C. §203 (Supp. V 1999).

68. Cf. Lemley, *supra* note 49 (manuscript at n.375) (raising the possibility of Clayton Act scrutiny for transfers of intellectual property to standard setting organizations).

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INTELLECTUAL PROPERTY RIGHTS AND ANTITRUST POLICY: FOUR PRINCIPLES FOR A COMPLEX WORLD

MICHAEL L. KATZ*

INTRODUCTION

Intellectual property law and antitrust policy interact in several important ways. Antitrust policy can shape the nature and value of intellectual property rights by placing restrictions on the acquisition of intellectual property, refusals to deal, and the terms adopted in licensing agreements. Moreover, antitrust policy affects the nature of product-market competition, which in turn affects the returns to the acquisition and use of intellectual property. In the other direction, intellectual property policy can have significant effects on product-market competition and innovation—areas that are central concerns of antitrust policy.

Today, it is fashionable to declaim that a historically perceived tension between intellectual property law and antitrust policy was overstated. The old view held that intellectual property rights regimes create monopolies to spur innovation, while competition policy seeks to eliminate monopolies.¹ The modern view holds that both intellectual property law and antitrust policy seek to promote innovation and consumer welfare by creating an economic environment in which innovative activities are stimulated by both competition and the promise of returns to successful innovation.²

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1. See, e.g., *SCM Corp. v. Xerox Corp.*, 645 F.2d 1195, 1203 (2d Cir. 1981) (“While the antitrust laws proscribe unreasonable restraints of competition, the patent laws reward the inventor with a temporary monopoly that insulates him from competitive exploitation of his patented art.”).

2. See, e.g., *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990) (“[T]he aims and objectives of patent and antitrust laws may seem, at first glance, wholly at odds. However, the two bodies of law are actually complementary . . .”).

I agree that the tension between intellectual property law and competition policy is less than some might have thought, but my reason for agreement is somewhat perverse: while the two policies are not necessarily at war with each other, each can at times be at war with itself. Property rights and competition policy both seek to create incentives to innovate, but there are circumstances in which both policies can stifle rather than promote innovation. The relationships between public policy, market structure, and innovation are complex. Indeed, much of the progress made in the last two decades of studying these relationships has been to learn how many things we do not fully understand.

In this essay, I suggest four principles for dealing with the complexity of the relationships between intellectual property rights, competition policy, and innovation:

1. *Keep the big picture in mind.* One must examine equilibrium of the full system of institutions, agents, and actions because partial analyses can be misleading.
2. *Remember the Coase Theorem.* Parties often can bargain to reach privately optimal outcomes, but transactions costs are ever present, and initial allocations of property rights matter.
3. *Look at the facts.* Theory alone is not going to provide simple answers for which one size fits all.
4. *Create a meaningful but-for world.* A realistic benchmark is essential for determining the net effects of a policy.

After discussing these principles in greater detail below, I apply them to the question of the appropriate antitrust treatment of patent licensing. I argue that licensing is an important part of an overall economic system and that the possibility of licensing can fundamentally alter one's views of the linkages among intellectual property rights, competition, and innovation. I also argue that competition policy should seek to avoid creating unnecessary transactions costs or restricting private institutions that develop to avoid or reduce transactions costs. Lastly, I argue that policy analysts should give additional thought to the question of whether the granting of intellectual property rights should be conditioned on industry characteristics, including the state of competition, to a considerably greater extent than is done today.

I. FOUR PRINCIPLES

This section discusses each of the four principles in turn.

A. *Keep the Big Picture in Mind*

The first principle is that proper policy analysis must consider the full set of institutions, actors, and actions. Public policies apply to autonomous agents who can be expected to respond in ways that advance their perceived self-interests, not the interests of policy makers. As a result, policies can have complex and unintended consequences. In some cases, private economic agents will respond to public policies in ways that undermine those policies. In other cases, however, private responses may correct what would otherwise be policy-induced distortions.

The importance of the big-picture principle is best illustrated through an example. Consider the policy analysis of errors made in issuing patents. A narrow analysis would focus on the Patent and Trademark Office and would attempt to assess the costs to society of type I and type II errors.³ But a proper analysis would recognize that while the Patent and Trademark Office can issue or deny patents, there are other parties that also determine the effects of patent policy. Private parties may respond to the frequent grant of patents by engaging in *defensive publishing*, whereby a company publicly discloses an innovation not to obtain intellectual property rights, but to prevent others from doing so.⁴ In this way, the potentially excessive granting of patents may actually lead to more innovations being placed in the public domain. Another response is for private parties to challenge the validity of patents in court.⁵ Lastly, private parties may be able

3. If one takes the null hypothesis to be that a patent should be granted in response to an application, a type I error is made when an application is rejected even though the invention meets all of the criteria for a patent grant, and a type II error occurs when a patent is granted for an innovation that does not, in fact, meet the criteria.

4. For a recent description of this strategy, see Sarah Milstein, *New Economy: Many Midsize Companies Find that 'Defensive Publishing' is a Quick and Easy Way to Protect Intellectual Property*, N.Y. TIMES, Feb. 12, 2002, at C3.

5. In an insightful essay, Mark Lemley makes the point that, because the vast majority of patents are never enforced or litigated, it is in fact efficient to have relatively cheap and, thus, error-prone, examinations by the Patent and Trademark Office, with the courts making corrections in those cases that matter. See Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 Nw. U. L. Rev. 1495 (2001). Recently, Josh Lerner has argued that the courts have become less likely to overturn patents and thus, the Patent and Trademark Office should adjust its issuing behavior. Joshua Lerner, *The Patent System and Competition*, A Statement to the Federal Trade Commission/Department of Justice Hearings on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy (Feb. 20, 2002) (unpublished manuscript, on file with author).

to use licensing agreements to work around “bad” patents. A firm accused of infringing what it thinks is an invalid patent may nevertheless take a license in order to get on with its commercial life. While the need to make such royalty payments can have adverse incentive effects, these effects may be less drastic than those of completely shutting down alleged infringers. In sum, the availability of these various private responses suggest that it is socially optimal for the Patent and Trademark Office to err toward issuing what would look like “too many” patents if it were viewed as having the last word.

Of course, one does not want to overstate private parties’ abilities to overturn bad patents through litigation or to bargain their way to efficient outcomes. Attempts to do so are both costly and imperfect. This observation leads to the second principle for dealing with the complexity of the relationship between public policy and innovation.

B. Remember the Coase Theorem

The second principle is to remember the Coase Theorem.⁶ In short, the Coase theorem states that where one starts has no effect on where one ends up if there are no transactions costs. More precisely, the Coase theorem states that, absent transactions costs or significant asymmetric information, *any* assignment of property rights will lead private parties to bargain their way to an efficient outcome.

The lesson of the Coase theorem is *not* that the assignment of property rights does not matter. Rather, there are two important lessons. First, private bargaining is an important determinant of the equilibrium outcome. One should recognize that public institutions, including intellectual property rights and antitrust policy, shape the private bargaining that leads to market outcomes. Public policies need not—and indeed may be unable to—determine market outcomes directly. In this regard, the second principle is closely related to the first.

A second important lesson of the Coase theorem is that it is critical to pay attention to the presence and effects of transactions costs. With transactions costs present, the allocation of property rights matters because parties may fail to bargain their way to efficient outcomes, or the bargaining process may itself be very costly. In a sense, transactions costs create stickiness—where a market begins affects where it ends up.

6. See Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

The reason this second lesson is important is that any market has transactions costs. For example, the hard-core version of the Coase theorem applies only to situations in which there is no significant private information, there are no costs of bargaining, and it is costless to write and enforce tremendously complex contracts.⁷ Clearly, these conditions are not met in practice. For instance, a firm's investment in a new production process may lead to lower prices that raise consumer surplus. If the firm fails to take this surplus increase into account, its private investment incentives will be smaller than is socially optimal. For any situation with more than a very small number of consumers, transactions costs will prevent consumers from signing a contract with the firm under which they partially underwrite the firm's investment. Creating and agreeing to the contracts needed to overcome the potential asymmetric information and free riding problems would be prohibitively costly.

C. *Look at the Facts*

The third principle—look at the facts—should be so obvious as to need no statement. Experience, however, teaches that it does. Fundamentally, this principle follows from the fact that theory alone is insufficient to answer many important questions. Economists are known for saying “on the one hand . . . on the other.” In order to discuss the economics of innovation, an economist may have to be a veritable Durga. Consider the effects of technological spillovers, whereby a firm that has not innovated may be able to make use of technology developed by another entity without obtaining the innovator's permission. On the one hand, spillovers are a form of diffusion that may lead to lower-cost or higher-quality products and increased product-market competition. On the other hand, spillovers may reduce the incentives to innovate because a firm recognizes that its research and development (R&D) may help other firms compete against it. On the *other* other hand, the fact that firms in an industry are able to “share” one another's R&D efforts in the presence of spillovers means that, even if total dollar expenditures on R&D fall, an increase in spillovers may lead to an increase in “effective” R&D. Theory alone is not going to tell us which effect dominates.⁸

7. In the presence of sunk investments, for example, first-best efficiency may require sophisticated contracts with large numbers of contingencies in order to prevent hold-up problems.

8. For a seminal theoretical analysis of spillovers, which provides simulations as guidance, see A. Michael Spence, *Cost Reduction, Competition, and Industry Performance*, 52 *ECONOMETRICA* 101 (1984).

Similarly, to understand the effects of competition policy on innovation and consumer welfare, one must understand a series of linkages from policy to competition, from competition to innovation, and from innovation to economic welfare. There are theoretical complexities and ambiguities at each stage. For the moment, take it on faith that competition policy does in fact promote product-market competition and consider the competition-innovation linkage. Economic theory identifies situations in which large firm size and high market shares are conducive to R&D investment.⁹ For instance, the possibility of sudden and sweeping entry, combined with large up-front investment demands, can necessitate high initial returns to allow costs to be recouped before the next innovator supplants the incumbent investor. A firm with a large market share and significant market power may better amortize the fixed costs of the R&D and appropriate a high percentage of the R&D's benefits. Conversely, it has been said that "[the] best of all monopoly profits is a quiet life."¹⁰ Considerable anecdotal evidence suggests that competition drives organizations to be more innovative than do protected monopoly positions.

The ambiguity in the theory of market structure and innovation leaves one with a situation that is hard, but not hopeless. While it is impossible to make definitive general statements about the linkage between market structure and innovation,¹¹ one often can make reasonable, unambiguous predictions about the effects of specific practices within a particular market structure and set of institutions. Theory alone is not going to get the job done, however. A fact-intensive investigation is needed.

Now consider the innovation-welfare linkage. A large body of economics literature has established that this linkage too is ambiguous in theory.¹² As a matter of theory, firms may invest more than the socially efficient amounts in R&D. This situation can arise, for example, in patent races due to "business stealing" effects. In a patent race, preempting its rivals by a day may allow a firm to obtain intellectual property rights whose value far exceeds the social benefits of having the innovation one day ear-

9. This is a view often associated with the work of Joseph Schumpeter. See JOSEPH A. SCHUMPETER, *CAPITALISM, SOCIALISM, AND DEMOCRACY* (1942).

10. J. R. Hicks, *Annual Survey of Economic Theory: The Theory of Monopoly*, 3 *ECONOMETRICA* 1, 8 (1935).

11. I am fond of saying that there is no general theorem in industrial organization except the theorem stating that there is no other general theorem.

12. For a survey, see Jennifer F. Reinganum, *The Timing of Innovation: Research, Development, and Diffusion*, in 1 *HANDBOOK OF INDUSTRIAL ORGANIZATION* 849 (Richard Schmalensee & Robert Willig eds., 1989).

lier. Moreover, in some cases, an innovation may allow a supplier to increase its share of the economic pie without increasing the total pie (e.g., a product or database innovation may facilitate price discrimination having these effects).

The theoretical possibility of excessive private incentives notwithstanding, as an empirical matter private incentives to invest in R&D typically are too low.¹³ Generally, private firms are unable fully to appropriate the benefits that their R&D generates for the economy.¹⁴ Moreover, consumers almost always benefit from additional R&D. Even in patent race models in which firms engage in more than the socially efficient levels of R&D expenditures, consumers would be better off if firms invested still more and thus brought the fruits of innovation to the market even faster. Finally, there is a specific set of conditions under which firms can have socially excessive incentives, and one can examine any particular market to determine if those conditions are present.

D. Create a Meaningful But-For World

The final principle is that it is important to have a thoughtful and complete but-for world. An inappropriate standard of comparison can lead to very misleading conclusions. For instance, one should be careful not to dismiss a policy solely because it does not induce an ideally efficient outcome if, in fact, no feasible policy can do so. One needs to consider realistic alternatives, and one should form careful predictions of how self-interested economic actors will respond to those alternatives.

II. INTELLECTUAL PROPERTY RIGHTS, LICENSING, AND INNOVATION

The present section and the two sections that follow apply the four principles above to the antitrust treatment of licensing.

13. See, e.g., Zvi Griliches, *The Search for R&D Spillovers*, 94 SCANDANAVIAN J. ECON. 29 (Supp. 1992); Charles I. Jones & John C. Williams, *Measuring the Social Return to R&D*, 113 Q. J. ECON. 1119 (1998).

14. Dennis Carlton and Robert Gertner point out that empirical studies generally compare *average* private and social returns, while the privately and socially optimal R&D levels depend on *marginal* returns. Dennis W. Carlton & Robert H. Gertner, *Intellectual Property, Antitrust and Strategic Behavior* (March, 2002) (unpublished manuscript, on file with author). In settings where R&D investment is driven by preemption incentives, the private marginal returns may deviate from the private average returns by more than the marginal social returns deviate from the average social returns, suggesting that perhaps there is a problem of excessive private incentives. It is far from evident, however, that patent preemption incentives are of empirical significance in many industries.

The present section establishes that, in some circumstances, licensing can have fundamental effects on the relationship between intellectual property policy and the resulting levels of innovation and diffusion. The following section examines at a broad level how antitrust policy should treat specific licensing practices, while the last of these sections briefly addresses the issue of compulsory licensing.

To see how licensing can have wide-reaching effects, consider how the granting of strong intellectual property rights affects innovation. The old view—still subscribed to by many—holds that strong intellectual property rights stimulate innovation by increasing the returns to successful R&D. The assignment of explicit intellectual property rights is seen as essential to allowing potential innovators to appropriate the fruits of their labors and thus is seen as essential to providing incentives to innovate. The new view challenges the old one on at least two grounds. First, the new view asserts that strong intellectual property rights are not needed, either because innovators are not as concerned with direct financial rewards as the old view suggests,¹⁵ or because there are other means of appropriating the fruits of innovation, such as the possession of scarce complementary assets. Second, the new view goes further to suggest that—more than simply being unnecessary—the assignment of strong intellectual property rights can reduce innovation because today’s potential innovators are blocked by the intellectual property rights of past innovators.¹⁶ In this regard, the “new” view is not so new.¹⁷ In response to the potential follow-on innovation

15. The open source movement in the software industry is often held up as an example where some combination of altruism and other forms of reward (e.g., professional recognition or benefits enjoyed as a user of the created property) provides motivation to innovate. For a discussion of labor market forces (e.g., the value of a good reputation) as motivation for open source programmers, see JOSH LERNER & JEAN TIROLE, *THE SIMPLE ECONOMICS OF OPEN SOURCE*, (Nat’l Bureau of Economic Research, Inc., Working Paper 7600 2000). See also Eric Raymond, *Homesteading the Noosphere*, available at <http://www.tuxedo.org/~esr/writings/cathedral-bazaar/homesteading/index.html> (last visited June 9, 2002). Raymond identifies the economic value of reputation, but points to psychic benefits as well (“good reputation among one’s peers is a primary reward”). *Id.* at §8.

16. For an insightful introduction to the issues of follow-on innovation, see Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. ECON. PERSP. 29 (1991). For several historical case studies of the effects of intellectual property rights on follow-on innovation, see Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839 (1990).

17. Like the old view, the new view generally holds that higher levels of R&D lead to higher levels of economic welfare. As discussed in Section I.C. above, the relationship between economic welfare and R&D is ambiguous in theory, but very likely increasing in practice, subject to a few specific exceptions.

problem, the Austrian patent law of 1897 allowed follow-on innovators to demand licenses in certain circumstances.¹⁸ And writing in 1940, Alfred Kahn warned that “[a] single seventeen-year monopoly of a minor cog in that huge mechanism of interlocking processes and contributions which make up an advancing art can for seventeen years seriously retard continued research.”¹⁹

Let us apply the four principles above to the new view. It is useful to begin with the admonition to consider an appropriate benchmark; that is, to create a meaningful but-for world. A central question is what would happen in the absence of strong intellectual property rights? Would innovations be kept secret? If so, then weaker intellectual property rights might lead to less diffusion of the underlying ideas to potential follow-on innovators than if a patent were granted and the idea formally disclosed. Would the fruits of innovation be enjoyed only by concerns that had complementary assets that allowed for rapid, internal use of the innovations? If so, then the loss of strong intellectual property rights might make it difficult or impossible for small organizations to innovate profitably. Thus, while some commentators argue that patents are a means of freezing out independent innovators, patents can have exactly the opposite effect; as discussed below, strong intellectual property rights can allow independent innovators to develop intellectual property that they can then sell to firms that are capable of making commercial use of the technology.

In setting an appropriate benchmark, it is also important not to set too high a hurdle for policy evaluation. One should not reject patents on the grounds that they cannot promote the optimal balance of rewards between first- and second-generation innovators. If two generations of innovations are complements that must be used together, then the two innovators face a *teams* problem. Each innovator is dependent in part on the efforts of the other. While either innovator’s efforts affect both, each is concerned with only his or her private returns. Consequently, as is well known, there is no balanced-budget solution that provides the fully efficient incentives for both to invest.²⁰

18. Richard Reik, *Compulsory Licensing of Patents*, 36 AM. ECON. REV. 813, 817 (1946).

19. Alfred E. Kahn, *Fundamental Deficiencies of the American Patent Law*, 30 AM. ECON. REV. 475, 482 (1940). Modern claims that an under-funded Patent and Trademark Office generates protracted and costly litigation by granting too many patents and issuing patents of questionable merit also echo Kahn’s complaints. *Id.* at 483-84.

20. See generally Bengt Holmstrom, *Moral Hazard in Teams*, 13 BELL J. ECON. 324 (1982).

Now consider the desirability of examining the big picture. An important observation about equilibrium of the overall economic system is that, even with strong intellectual property rights, an initial innovator can support follow-on innovation. Absent transactions costs, an incumbent rights property holder and potential follow-on innovator will reach a mutually profitable arrangement under which investment in the follow-on innovation is made whenever the investment raises the expected joint profits of the two parties (the Coase theorem again). In this setting, there is no danger that granting strong intellectual property rights to initial innovators will deter later innovation.²¹ Moreover, private parties may also respond in other ways. One is to develop patent portfolios that can then be used to bargain with other rights holders to obtain cross licenses. The result may be both increased incentives to innovate and widespread diffusion.

Of course, the transactions costs associated with licensing and its alternatives can be significant. It does not automatically follow, however, that granting property rights to initial innovators slows follow-on innovation. Indeed, one can argue that patents reduce transactions costs and make licensing feasible by making it possible for an intellectual property owner to show its wares to a potential licensee without fear that the would-be buyer would simply run off with the idea once it was revealed.²² Hence, by facilitating licensing that makes both patented information and, in some cases, associated know-how more widely available, the granting of strong intellectual property rights may promote follow-on innovation rather than stifle it.²³

21. Technically, consumers too must face no transactions costs. See Section I.B. above. See also Alvin K. Klevorick et al., *Appropriating the Returns from Industrial Research and Development*, 3 BROOKINGS PAPERS ON ECON. ACTIVITY 783, 788 (1987) (arguing that patents pose no obstacles to cumulative innovation absent transaction costs).

22. For a discussion of the difficulties of selling information, see Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 609, 614-16 (Richard R. Nelson ed., 1962). Edmund Kitch observed that the patent system generally increases the ability of firms to combine complementary assets through contract by reducing the danger that intellectual property revealed during the contracting process will be misappropriated. Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J. L. & ECON. 265, 277-78 (1977). For a discussion of an alternative mechanism for licensing in the presence of the potential theft of information shown to the prospective buyer, see James J. Anton & Dennis A. Yao, *Expropriation and Inventions: Appropriable Rights in the Absence of Property Rights*, 84 AM. ECON. REV. 190 (1994).

23. Edmund Kitch identifies several other mechanisms through which strong property rights may stimulate and rationalize follow-on innovation. Kitch, *supra* note 22, at 276-79. For a critique of Kitch's view that having an initial innovator

Nevertheless, the picture can be far less rosy. Real-world licensing transactions typically take place between asymmetrically informed parties. The potential licensor will not know the full value of a license to the potential licensee. In attempting to earn the greatest possible revenues from the licensee, the potential licensor may set the price so high that licensing does not take place. In addition to leading to too little licensing, the presence of asymmetric information may shape licensing terms in ways that lead to distortions in product-market competition (e.g., the use of running royalties as a metering device). Moreover, contracting costs can be significant, with the result that either the parties settle for less than first-best outcomes in order to avoid incurring transactions costs, or the parties incur significant costs to get to an efficient allocation.²⁴ Even in these situations, however, one must determine whether alternatives perform better before concluding that granting strong intellectual property rights is an unsound policy.

The discussion so far has been framed in terms of a single incumbent. Transactions costs may be higher with multiple incumbents. But here, too, one must consider the possible reactions of private parties. Patent pools and cross licensing have long been recognized as potential means of reducing transactions costs and ameliorating the stifling of innovation that could otherwise arise when production requires the use of a large number of patents held by different parties.²⁵

The effects of strong patents on incentives to innovate depend on many factors, including: the viability of secrecy; imitation costs; the extent to which there are complementary pieces of intellectual property; the potential for follow-on innovation; the role of complementary productive assets; and competition policy's treatment of licensing, both unilateral and joint. Not sur-

coordinate follow-on innovation is preferable to open competition, see Merges & Nelson, *supra* note 16, at 871-77.

24. See Lerner, *supra* note 5 (arguing that both the strengthening of U.S. patent rights and use of a first-to-invent system lead to adverse effects of this type). The size of contracting costs are magnified because, in order to ensure that follow-on innovation incentives are not inefficiently depressed, the parties would have to engage in contracting before a potential follow-on innovator knew if it had anything of value. If a follow-on innovator were to wait until after it had spent a large amount of money and effort to obtain a valuable innovation before it reached a contract with the original innovator, the sunk nature of the follow-on innovator's costs would put it in a weak bargaining position. The original innovator could be expected to take advantage of this fact, and the follow-on innovator might not be able to reach an agreement in which it recovered its sunk costs even when the joint value of the innovation to the two parties exceeded the costs of the innovation.

25. See, e.g., Reik, *supra* note 18, at 828; see also Kahn, *supra* note 19, at 486-91.

prisingly, to understand the effects in a given market, one must look at the facts. The empirical literature on intellectual property rights and innovation verifies that these factors lead to strong inter-industry differences. In one recent empirical study, for example, Ashish Arora et al. concluded “[a] central result is that the impact of the effectiveness of a firm’s patenting strategy on R&D and innovation is fundamentally different across [different types of industries].”²⁶ Research indicates, for example, that strong patent protection significantly stimulates innovation in some industries (e.g., chemicals and pharmaceuticals) but does less so in others (e.g., machinery and electronics).²⁷ The rationales for patenting may also differ across industries. For example, Wesley Cohen found that firms in some industries, particularly those requiring the use of a large number of complementary technologies to produce a marketable good, often cite using patents as a negotiating tool to obtain cross-licenses.²⁸

Two opposing views of the effects of strong intellectual property rights on innovation have coexisted for a long time. I suspect this continuing coexistence is due, in part, to the fact that each view contains a grain of truth. Indeed, the extent to which one view is correct and the other incorrect varies considerably across industries, one of the factors being differences in industry participants’ incentives and abilities to engage in licensing. The next section examines the antitrust treatment of licensing terms. The section after that examines the implications of inter-industry differences for compulsory licensing policy.

26. ASHISH ARORA, MARCO CECCAGNOLI & WESLEY COHEN, INTELLECTUAL PROPERTY STRATEGIES AND THE RETURNS TO R&D 18, (Carnegie Mellon University, Working Paper, Nov. 2000), available at <http://www.heinz.cmu.edu/wpapers/detail.jsp?id=180> (last visited June 9, 2002).

27. *Id.* at 18-19. See also Klevorick et al., *supra* note 21. Recently, Wesley Cohen reported that patenting has positive effects on R&D levels even in industries such as semiconductors, where other forms of intellectual property protection are more important than patents. Wesley M. Cohen, Address Before the Federal Trade Commission/Department of Justice Hearings on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy, *Patents: Their Effectiveness and Role*, at 26-31 (Feb. 20, 2002), available at <http://www.ftc.gov/opp/intellect/cohen.pdf>. Remarkably, writing in 1946, Richard Reik argued that chemicals were a particularly good area in which to *limit* patent rights through compulsory licensing because follow-on innovation would otherwise be dampened. Reik, *supra* note 18, at 823. Moreover, he pointed out that numerous European countries had weaker intellectual property rights for chemicals than other industries, and that Germany’s lead over France in the dye industry “was generally attributed to the condition that the French patent law grants protection to the dye itself.” *Id.*

28. Cohen, *supra* note 27, at 14-17.

III. ANTITRUST TREATMENT OF LICENSE TERMS

Competition policy toward licensing matters because licensing terms can affect both innovation and product-market competition. As discussed above, the availability of licensing can affect innovation by affecting the returns to initial innovation, the returns to follow-on innovation, and the availability of a knowledge base on which to build follow-on innovations. With respect to product-market competition, licensing affects both the extent to which innovations are used and—through the terms of license contracts—the degree and nature of product-market competition.

To evaluate the competitive effects of a licensing agreement, one must predict what would happen if the agreement were disallowed. Would there be a subsequent licensing agreement with less offensive terms, or would there be no licensing at all? Moreover, one must determine whether no licensing agreement at all is preferable to one containing the offending terms.

Consider a license containing terms that restrict competition in some market, say by limiting the licensee's ability to compete for certain customer classes. Depending on its terms, the restrictive license may be better or worse than no license at all. The benefits of the restrictive license compared to no license at all include:

- *The license agreement may allow complementary assets to be combined more fully or at lower cost, with resulting improvements in product cost or quality.* Intellectual property is typically one of many factors that must be combined to produce a valuable good or service, and the creator of intellectual property may not possess the full range of complementary factors of production. A licensing deal may allow the combination of the intellectual property and complementary assets that result in improved products or processes. Moreover, some of these benefits may be passed on to consumers outside of the proscribed classes, and even consumers in the proscribed classes may benefit if they or others can engage in arbitrage.
- *Some product-market competition where there might have been none.* While the licensee cannot compete for all customers in the hypothetical just posed, it may be able to compete for some. Even restrictive licensing can thus increase competition if the non-innovator would be foreclosed from the product-market entirely absent licensing.
- *Increased returns from innovation may stimulate additional R&D.* The possibility of a licensing revenue stream increases

the expected reward to successful innovation and thus increases R&D investment incentives.

- *Increased diffusion of innovation may stimulate additional R&D.* If the alternative to licensing is that the idea is kept secret, then other firms may have less ability to create follow-on innovations absent a license.

As noted earlier, transactions costs associated with patent disputes and licensing can be substantial. Private parties may respond by creating institutions—such as patent pools, joint ventures, and standards-setting organizations—that can serve to reduce these transactions costs. In the light of the potential benefits of licensing, antitrust policy needs to be sensitive to the potential benefits of these institutions. Indeed, in a sense, competition policy can be viewed as a form of transactions costs, making some types of transactions prohibitively costly. The trick is to impose costs on bad transactions, while helping parties minimize the costs of socially beneficial transactions.²⁹

The terms of a restrictive license may diminish competition to such an extent that it is socially preferable to have no license than to have the one in question. The harms to competition and social welfare can come in two areas. First, there may be a loss of innovation competition. For example, there might be a contractual provision requiring the licensee to refrain from creating substitute pieces of intellectual property. It is important to be clear that the antitrust concern is with specific contractual terms, such as this one, that limit competition. The mere existence of a license on terms favorable to the licensee reduces the licensee's incentives to invent around the original patent. But it would be unsound public policy to object to licensing on the grounds that it thus reduces innovation incentives. Such a policy would be suspect on two grounds. First, there would be a loss of diffusion in those situations where licensing on terms acceptable to the rights holder was proscribed and design-around attempts

29. For insights into how the Antitrust Division of the U.S. Department of Justice has recently viewed patent pools, see the December 16, 1998 and June 10, 1999 business review letters for the joint licensing of patents essential for making DVD-video and DVD-ROM discs players, JOEL I. KLEIN, U.S. DEP'T OF JUSTICE, available at <http://www.usdoj.gov/atr/public/busreview/2121.htm> and <http://www.usdoj.gov/atr/public/busreview/2485.htm> (last visited Apr. 16, 2002). See also the June 26, 1997 business review letter for the licensing of intellectual property essential to the MPEG-2 compression technology standard, JOEL I. KLEIN, U.S. DEP'T OF JUSTICE, available at <http://www.usdoj.gov/atr/public/busreview/1170.htm> (last visited Apr. 16, 2002).

failed or were too costly to be commercially attractive. Second, the policy could result in wasteful duplication of R&D efforts.³⁰

A second area for potential harm from license terms is through the loss of competition among actual or potential product-market competitors. For instance, absent legal prohibitions, product-market rivals might sign a licensing agreement allocating markets between them even though the licensing technology was useless in the production of the affected good or service. The sole effect of such an agreement would be to reduce product-market competition. A similar situation could arise when one firm had a patent and another firm was uniquely positioned to have the patent declared invalid. Left to their own devices, the latter firm might agree not to challenge the patent, and the two firms might allocate markets or make side payments between each other. A final example is one in which there is a valid patent actually used in production in one market, but the licensing agreement restricts competition in another product market.

Here too, the need to look at the facts arises. One could also conclude that it is good to allow firms to monopolize other markets as a reward to innovation. This is part of a more general difficulty: How should policy makers deal with the point that increased market power may increase the rewards to innovation and investment? Consider an extreme example. The production of a new pharmaceutical might generate large amounts of consumer surplus. Hence, the innovating firm's incentives to invest in coming up with the drug might be less than the socially efficient incentives. One way to increase the firm's investment incentives would be to grant the firm a monopoly on the manufacture of pretzels in a handful of mid-western states as part of the reward for patenting the new drug. Of course, there would be efficiency losses, but the theory of Ramsey pricing suggests that it would be more efficient to raise a given amount of profits over a range of products rather than trying to extract it all from one.³¹ The example is manifestly silly, but its logic is not that far removed from some of the claims made in telecommunications and other industries about the need to create vertically integrated closed systems in order to generate incentives for in-

30. In theory, there could be circumstances in which it is socially optimal to have duplicate innovation by two firms rather than licensing by one firm to the other. The reason is that two innovators might compete in the sale of their intellectual property, leading to greater diffusion of the innovation compared to the case in which an innovator licenses to one other producer.

31. See generally William J. Baumol & David F. Bradford, *Optimal Departures from Marginal Cost Pricing*, 60 AM. ECON. REV. 265 (1970).

vestment in broadband infrastructure. In the antitrust—if not regulatory—context, however, U.S. policy rejects the notion that the otherwise illegal maintenance or acquisition of monopoly power in a market can be justified by “good” use of the monopoly profits in that market or another one.

U.S. competition policy typically frames the problem of harmful licensing agreements as those that go outside the bounds of the patent.³² In the case of a non-essential patent, one has some sense of what it means to say that an agreement cannot go beyond the scope of the patent. Market division by firms that could compete absent a license is one example. Exclusive dealing requirements and tying are a second class of examples, which go beyond the patent by affecting third-party suppliers’ or third-party intellectual property owners’ abilities to compete. For each practice, the effects are complex and situation-specific. However, there is a consensus that underlying grants of intellectual property rights do not, and should not, immunize licensing agreements from antitrust scrutiny.³³

Essential patents can raise somewhat different issues. One might even ask whether a policy of “anything goes” would be appropriate with respect to licensing essential patents on the grounds that the patent holder has the right and ability to monopolize the market. In this view, any competition fostered by licensing is icing on the economic cake. This logic suggests that market division concerns are misplaced as long as the division is of markets in which the intellectual property is essential. However, the right to monopolize is not unlimited. First, just as in the case of non-essential patents, licensing may have effects outside of the market in which the patent applies, as can arise with tying or the division of markets in which the patent is not relevant. Second, even within a market, it can be a tricky matter to determine if a patent truly is essential. What is the scope of the patent? Could it be invented around? Is it valid and enforceable?³⁴ Antitrust enforcers can have a very difficult time deter-

32. See generally U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY (Apr. 6, 1995), available at <http://www.usdoj.gov/atr/public/guidelines/ipguide.htm>.

33. See, e.g., *CSU L.L.C. v. Xerox Corp.*, 203 F.3d 1322, 1325 (Fed. Cir. 2000) (“Intellectual property rights do not confer a privilege to violate the antitrust laws.”).

34. The Federal Circuit’s position with respect to intellectual property-based refusals to deal closely fits the structure just described in the text. For example, the court stated, “in the absence of any indication of illegal tying, fraud in the Patent and Trademark Office, or sham litigation, the patent holder may enforce the statutory right to exclude others from making, using, or selling the claimed invention free from liability under the antitrust laws.” *Id.* at 1327.

mining whether firms are actual or potential competitors, either as suppliers of intellectual property or as suppliers of products embodying the intellectual property. Identifying competitors in the supply of intellectual property can be particularly difficult because it often involves issues of potential competition.

These difficulties are part of a broader issue faced by public policy makers. For both innovation and product-market competition, the evaluation of specific licensing terms depends in large part on the validity and scope of the patents involved. Under the current system of intellectual property rights, private litigation challenging validity and claims of infringement is used both to correct errors that may have been committed by the Patent and Trademark Office and to determine the practical scope of patents. These challenges are brought by firms interested in supplying competing intellectual property or goods and services. This institutional structure raises an important question for both antitrust policy and intellectual property law: who represents consumers in challenging patent validity and claims of broad scope?³⁵ Transactions costs may be too high for consumers to mount challenges on their own. And suppliers may not have incentives to protect consumer interests. The divergence of supplier and consumer interests is one reason for antitrust scrutiny of licensing agreements. It is also a reason for government oversight of private agreements arising out of patent litigation.³⁶ Given that they cannot rely on the private parties possessing the technical expertise, what assumptions about patent validity and scope should antitrust enforcers make when analyzing the welfare consequences of license agreements and settlements? And, in the light of the divergence between social and private incentives to challenge validity and scope, should the government bring challenges on behalf of consumers? Economic logic suggests an affirmative answer. But there are difficult issues of institutional competence that must be addressed. This area clearly deserves greater thought.

35. In addition to the neglect of consumer interests, there can also be a second difference between a private party's incentives to challenge patent validity and the social incentives: A validity challenge may give rise to a free-rider problem, whereby each of several potential infringers waits for one of the other potential infringers to bear the costs of challenging validity. The lack of any one potential licensor's concern for the welfare of the others can also affect settlement incentives. In comparing private and social incentives, it is important to keep in mind that efficiency effects, rather than pure monetary transfers, are the social concern.

36. For recent enforcement actions, see, e.g., *In re Abbott Labs and Geneva Pharm., Inc.*, Federal Trade Commission Dkts. C-3945 and C-3946 (March 16, 2000), available at <http://www.ftc.gov/os/2000/03/index.htm#16>.

IV. COMPULSORY LICENSING?

A central concern in evaluating the effects of public policy prohibitions of private licensing terms is that licensing may be deterred entirely. Moreover, under some conditions, even without government restrictions on license terms, an intellectual property owner will refuse to offer meaningful licenses even though it would be efficient to do so.³⁷ So why not mandate the licensing of patents that would otherwise confer market power in order to take the guesswork out of whether banning a restrictive license term would lead to less restrictive terms or no license at all?

Before answering this question, it is useful to distinguish a mandatory duty to deal from two very different rationales for compulsory licensing.³⁸ Under the rationale just described, a refusal to license would itself be a violation of intellectual property or antitrust law.³⁹ Under an alternative rationale for compulsory licensing, an initial refusal to license need not itself be an antitrust violation. Rather, the reason for compelling licensing would be to remedy a separate, previous antitrust violation. For example, when Microsoft was found to have harmed competition through various exclusionary actions, several commentators called for Microsoft to be forced to license the source code of Windows under various terms designed to restore competition.⁴⁰

37. Even absent government licensing restraints, asymmetric information and transactions costs may prevent private firms from fully appropriating the social benefits generated by licensing. Thus, licensing sometimes would lead to private losses in situations where there would be net social benefits.

38. There is also a fourth rationale: Mandatory licensing can be used as a means of preventing a merger from giving rise to adverse competitive effects. This type of licensing requirement is based on fundamentally different considerations—in which the issue is not so much the strength of the right as whether the merged entity is entitled to own the right—than are those in the text.

39. Within this rationale, one may also distinguish an essential facility argument from an intent-based argument. Under an essential facilities doctrine, licensing may be required even if the rights holder has “innocent” reasons for refusing to license to another firm. Under an intent standard, licensing is required only in situations in which licensing would be profitable but for the benefits of preventing a rival from competing. See generally James S. Venit & John J. Kallaughner, *Essential Facilities: A Comparative Law Approach*, 1994 FORDHAM CORP. L. INST. 315, 316-22 (Barry Hawk ed., 1995). For a thorough review of intent-based and essential facilities cases from economic and legal perspectives, see Gregory J. Werden, *The Law and Economics of the Essential Facility Doctrine*, 32 ST. LOUIS U. L.J. 433 (1987).

40. For an analysis of compulsory licensing as a remedy in the Microsoft case, see Remedies Brief of Amici Curiae Robert E. Litan, Roger G. Noll, William D. Nordhaus, and Frederic Scherer at 36-44, *United States v. Microsoft Corp.*, 97 F. Supp. 2d 59 (D.D.C. 2000) (No. 98-1232), available at <http://www.brook.edu/views/papers/litan/20000428.pdf> (last visited June 9, 2002).

It is useful to distinguish between a duty to deal and licensing as a remedy because they may have very different effects on the incentives to innovate. As many critics of a duty to deal have noted, such a duty weakens intellectual property rights and can reduce R&D investment incentives. In contrast, compulsory licensing as a remedy to a separate antitrust injury may actually *increase* innovation incentives. The reason is the following. Suppose that a remedy is imposed to restore competition to what it would have been absent the conduct found to be illegal. Mandatory licensing of intellectual property may be one vehicle for restoring competition. To the extent that licensing is a means of restoring competition that is less costly to the defendant than are alternatives (e.g., breaking up the firm), the defendant benefits from having created intellectual property that can be incorporated into a remedy. While it is far from clear that these positive effects on R&D are significant, the argument does suggest that any negative incentive effects may be insignificant.

Turning to the third potential rationale for compulsory licensing, Richard Reik found that European compulsory licensing laws in the early 1900s were intended as substitutes for compulsory working provisions—rather than force the patent holder to use its intellectual property in production, the patent holder was faced with a choice of use it or lose the exclusive rights to do so.⁴¹ On the surface, such a policy appears to offer a way to deter patenting that would otherwise occur solely for the purpose of blocking competitors (i.e., from developing and patenting new technologies that the inventor had no intention of using to improve its own products or processes, or of licensing to other producers). Such a policy, however, would be extremely difficult to enforce. For some products, it might be very hard to determine whether a firm meaningfully used its intellectual property. More important, firms might be driven to incorporate intellectual property into their products and processes solely to meet the requirements of the policy.⁴² In the extreme, a firm might introduce a product with little or no marketing support and distribution solely to lay claim to the underlying intellectual property. To counter such socially wasteful tactics, policy makers would have to provide detailed definitions of what it means to

41. Reik, *supra* note 18, at 815-16.

42. One might also argue that even purely preemptive patenting is beneficial if it increases the degree to which the original innovator can earn a return on the innovations of which it does make use. This line of argument, however, suggests that patent scope should be increased, not that firms should make real expenditures solely to protect rents and quasi-rents.

work a patent. Such a policy would likely become a regulatory morass.

The remainder of this section will focus on the duty-to-deal rationale for mandatory licensing. Those who oppose compulsory licensing offer at least two objections. The first is the assertion that mandating access to an input is never a sound public policy, for a variety of reasons. One is that there may be negative effects on investment incentives of the original innovator.⁴³ Another reason is that other potential investors' incentives are lowered—rather than come up with the asset on their own, they can rely on compulsory dealing.⁴⁴ Finally, there can be tremendous practical difficulties of determining appropriate prices and terms of exchange.⁴⁵ In fact, the first two incentives problems stem in part from difficulties in setting appropriate prices.

The second challenge rests on the assertion that, while an essential facilities doctrine may make sense for other forms of property, it is specifically inappropriate for intellectual property. But what, if anything, is different about asserting a duty to deal for intellectual property, as opposed to other inputs?

A. *Intellectual Property versus Other Property as a Candidate for Mandatory Dealing*

One can identify several dimensions along which intellectual property tends to be distinguished from other inputs:⁴⁶

43. Interestingly, Klevorick et al., found that compulsory licensing was generally of little consequence, even in industries subject to compulsory licensing decrees. Klevorick et al., *supra* note 21, at 804.

44. In a somewhat different context, these two arguments about effects on the incentives of the initial and follow-on investor are often made in opposition to resale and unbundling requirements imposed on incumbent local exchange telephone carriers. For a general discussion, see Joseph Farrell & Michael L. Katz, *Public Policy and Private Investment in Advanced Telecommunications Infrastructure*, IEEE COMMUNICATIONS MAGAZINE, July 1998, at 87, 89-90.

45. For a brief discussion of these problems, see Werden, note 39, at 472-75.

46. The so-called "MCI factors" provide an alternative but closely related taxonomy. The Seventh Circuit identified the following critical elements: "(1) control of the essential facility by a monopolist; (2) a competitor's inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility." *MCI Communications Corp. v. American Tel. & Tel. Co.*, 708 F.2d 1081, 1132-33 (7th Cir. 1982), *cert. denied*, 464 U.S. 891 (1983). Strong patents that are essential to the production of some good or service would meet conditions (1) and (2), while the satisfaction of (4) should be guaranteed by the patent filing itself.

1. Information Has Low Marginal Costs of Reproduction and is Not Subject to Physical Congestion

As is often noted, the costs of reproducing and disseminating information, such as intellectual property, are usually much lower than the costs of creating it. This feature suggests that there are low costs of granting mandatory access and that compulsory licensing of intellectual property is more likely to be efficient than is mandatory access to other forms of property.

2. Concern for Investment Incentives

Although there is lack of physical congestion, the use of intellectual property by others can give rise to a form of commercial congestion: use of an innovator's intellectual property to compete against it in the product market will, in most instances, lower its economic returns. Moreover, a compulsory licensing policy can weaken a rights holder's ability to collect license revenue. Opponents of compulsory licensing note that, because such licensing almost certainly reduces the financial returns to innovation, it reduces R&D investment incentives.⁴⁷ But how does this factor distinguish intellectual property from any other investment subject to mandatory access? There is a concern for investment incentives with most forms of property. For example, both cable companies and local exchange telephone companies argue that mandatory access to their broadband distribution facilities will inefficiently reduce their investment incentives.⁴⁸ The next two factors have been identified as characteristics that make investment concerns particularly strong for intellectual property.

47. See, e.g., Abbott B. Lipsky, Jr. & J. Gregory Sidak, *Essential Facilities*, 51 STAN. L. REV. 1187, 1219 (1999).

48. See, e.g., Cox Communications, Inc.'s comments filed before the Federal Communications Commission in which Cox quotes Justice Breyer's concurring decision in *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999), on the perils of mandatory access and argues that these concerns apply to broadband services. Comments of Cox Communications, Inc. at 16-17, *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, (GN Docket 00-185), December 1, 2000, available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6512159427. See also, Verizon's comments on the negative effects of mandatory unbundling and collocation, as well as other forms of government intervention, on broadband facilities investment. Comments of Verizon at 5-7, *Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, March 1, 2002, available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513079788.

3. Ability of Others to Misappropriate

Abbott Lipsky and Gregory Sidak conclude that “the [essential facilities] doctrine should not be applied to intellectual property.”⁴⁹ They appear to identify the ease of misappropriation by others as a distinguishing feature of intellectual property.⁵⁰ As Lipsky and Sidak correctly note, this feature makes it desirable to extend some measure of legal protection to intellectual property owners. But the authors then appear to argue that rewarding investment in intellectual property with strong property rights is uniquely important in comparison with investments in other forms of property.⁵¹ Nothing in their argument establishes why this should be so. The fact that misappropriation would be a problem *absent* property rights (which is true of other forms of property as well) does not establish that there should be an absolute right to exclude once property rights are granted.⁵² Indeed, if intellectual property policy is successful at creating very strong property rights, one might even argue that intellectual property is more likely to be an irreproducible essential facility (which might then be subject to compulsory access) than are most other forms of property.

4. The Degree of Uncertainty

Although Lipsky and Sidak did not attempt to do so, one might look for features of intellectual property investment that make exclusivity particularly desirable. One possibility is the high degree of uncertainty that innovation often entails. In the presence of a high degree of uncertainty, efficient investment incentives can be maintained only if successful innovators are allowed to earn high rates of return as compensation for the risk.⁵³ Put another way, uncertainty makes it very difficult to determine appropriate risk-adjusted rates of return that should be earned under mandatory access. Hence, it is very likely that government intervention will inefficiently distort the market outcome. Whether this factor distinguishes intellectual property

49. Lipsky & Sidak, *supra* note 47, at 1187.

50. *Id.* at 1219.

51. *Id.* at 1219-20.

52. One might attempt to revive Lipsky and Sidak’s argument by asserting that the nature of intellectual property can make it impossible to monitor its use in some circumstances, and that compulsory licensing will thus inevitably lead to misappropriation by the licensee. This argument, however, applies only to intellectual property that is protected through secrecy and whose use is difficult for outsiders (i.e., the intellectual property owner and the courts) to detect.

53. I am assuming that the government does not subsidize innovation.

from other forms of investment is an empirical question.⁵⁴ Certainly, cable companies and local exchange carriers could be expected to argue that their investments in broadband distribution facilities are subject to high degrees of risk and uncertainty as well.

5. Standards and Network Effects

Some commentators have argued that the benefits of imposing a duty are greater and the costs are lower when intellectual property underlies standards in markets subject to network effects.⁵⁵

On the benefits side, one argument is that competition may be impossible without access to the intellectual property needed to achieve product compatibility and interoperability. Absent compatibility, one network may become dominant and consumers may become locked in to that network.⁵⁶ Moreover, even if multiple networks survive, there will be a loss of demand-side economies of scale due to network fragmentation. Network fragmentation can lead to innovation losses as potential developers of complements have smaller potential markets on which to build (or face the prospect of having to bear porting costs). Thus, the argument for weak intellectual property protection is that strong intellectual property rights allow the rights holder to block compatibility and stifle competition and/or the realization of network benefits. But, as always, one has to look at the big picture and consider a realistic but-for world before concluding that strong rights are harmful. Rather than simply looking at what might be seen as an undesirable end state, one has to look at the entire time path of market evolution. While competition between incompatible networks may ultimately lead to tipping and monopoly, firms may compete extremely vigorously to become the

54. Werden argues that natural resources and intellectual property are particularly likely to suffer from pricing that does not sufficiently reward risk. Werden, *supra* note 39, at 475.

55. Mark Lemley and David McGowan provide an insightful summary of the literature examining whether intellectual property rights should be weaker in industries with strong network effects. Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 523-41 (1998). See also Joseph Farrell, *Arguments for Weaker Intellectual Property in Network Industries*, 3 STANDARDVIEW 46 (1995).

56. Joseph Farrell also makes the following argument: through installed base lock-in, network effects may create durable first-mover advantages. Thus, a patent that initially shields its owner from product-market competition can be far more economically powerful in a market subject to network effects than in other industries. Farrell concludes there is a danger of granting excessive intellectual property protection in networks industries. Farrell, *supra* note 55, at 47.

monopolist and may be willing to make large investments in promoting their networks (e.g., engaging in consumer education or penetration pricing). Moreover, firms may go through this cycle of competing to be the dominant supplier for each new generation of technology. In contrast, if various firms' products are compatible at the outset, they may compete less vigorously and be unwilling to subsidize network development.⁵⁷

On the costs side, the argument for compulsory licensing of intellectual property underlying standards is that initial investments in the intellectual property underlying interfaces may be minimal, reducing the concern about diminishing investment incentives.⁵⁸ This argument builds on the notion that an interface may become valuable solely because of network effects. The idea is that anything could have been chosen as a standard and all of the value derives from the act of being a standard (e.g., the specific technical characteristics of a protocol chosen as the standard for communicating among systems components may matter less than the fact that *some* protocol was chosen).⁵⁹ In practice, the ease of designing an interface will be disputed, but presumably courts could make factual determinations and with some success enforce a rule that attempted to distinguish "easy" from "difficult" or costly interface inventions. On its face, a bigger problem is the theoretical ambiguity in whether it is socially beneficial to let a firm keep its network closed or proprietary—doing so may reduce competition along some dimensions but can provide the firm with increased incentives to invest in its network and to compete for the market.⁶⁰ In this sense, allowing a firm to use interface intellectual property rights to limit compatibility may be a backdoor way of creating property rights that encourage net-

57. See Michael L. Katz & Carl Shapiro, *Technology Adoption in the Presence of Network Externalities*, 94 J. POL. ECON. 822 (1986).

58. Farrell, *supra* note 55, at 47.

59. The fact that a technology's inclusion in a standard can create substantial economic power for its owner raises a variety of issues concerning the behavior of intellectual property owners with respect to standards setting bodies. See, e.g., *In re Dell Computer Corp.*, No. 931-0097 (F.T.C. 1996), in which the FTC complained that Dell had participated in the Video Electronics Standards Association's decision to include technology in its VL-bus standard without disclosing that Dell held a patent on that technology. Dell settled with the FTC by agreeing not to enforce its patent rights against computer manufacturers using the standard. These issues are outside the scope of the present essay.

60. Dennis Carlton and Robert Gertner develop a simple model of multi-generation R&D competition by platform providers and find that firms may inefficiently close their systems. Carlton & Gertner, *supra* note 14, at 26-27. However, the authors do not call for mandatory licensing or open standards, apparently because they doubt that the courts could administer such a policy in ways that would improve welfare. *Id.*

work investments for which it is otherwise difficult to ensure that a large proportion of the benefits of an investment accrue to the investor.⁶¹

6. Explicit Property Rights Regime

A final factor—one most often referred to by legal commentators—is that patent policy grants explicit rights to exclude.⁶² An obvious and central flaw in this point as an argument for special treatment of intellectual property is that other forms of property are granted similar rights by statute and common law. This point does, however, raise a very important question: Should there be a division of labor between intellectual property law and competition policy, with competition policy staying out of the way when it comes to compulsory licensing? This question is of sufficient importance that I will return to it in the next subsection.

Summing up, the arguments for special treatment of intellectual property are incomplete.⁶³ Indeed, the arguments for imposing less of a duty to deal on intellectual property than on other forms of property have been disappointingly superficial to date. The arguments for placing a greater duty to deal on intellectual property when used in network standards are perhaps better developed but are still far from complete. This state of affairs may be the result of the fact that mandatory access is problematical for *any* form of property, and—in this regard—intellectual property really is not that different from other forms of property. In any event, more rigorous analysis is needed if one is to take seriously arguments that intellectual property is deserving of unique treatment.

B. *A Need for Fine-Tuning?*

The set of conditions under which an innovator can exclude others from using its intellectual property is a critical dimension of the innovator's property rights. Those rights are defined by the combined effects of intellectual property law and antitrust law. Should there be a division of labor between intellectual property law and competition policy, with antitrust policy deferring to intellectual property law on issues of compulsory licens-

61. Edmund Kitch makes a similar point with respect to the incentives to make investments in complementary assets even in non-network settings. Kitch, *supra* note 22, at 276-77.

62. Lipsky & Sidak, *supra* note 47, at 1219-20.

63. For additional discussion of these issues, see Philip J. Weiser, *Law and Information Platforms*, J. TELECOMMS. & HIGH TECH. L. 1, [13-16 IN TYPESCRIPT] (2002) and the references cited therein.

ing? Many observers have answered “yes” on the grounds that intellectual property policy is based on the explicit recognition that strong property rights may create monopoly power, but that power is granted in order to provide a stimulus to R&D investment.⁶⁴ There remains, however, the question of whether patent policy has gotten the tradeoff between competition and the creation of incentives right. In other words, the argument that the rights granted under intellectual property policy should immunize a patent holder from a duty to deal begs a central question of optimal policy design.

Earlier, it was noted that many technological and market characteristics affect the relationship between the granting of intellectual property rights and the extent of innovation and diffusion. It is notable that, with very few exceptions, current patent and copyright policy apply uniformly across industries and thus generally fail to take any of these industry characteristics into account.⁶⁵ For instance, in its present incarnation, patent policy is oblivious to both competitive conditions and the potential for follow-on innovation. The crude nature of current policies raises the possibility that someone should engage in fine-tuning.

In the light of widespread claims that intellectual property rights are too strong and granted too often, I will frame the discussion in terms of selectively weakening intellectual property protection. There are three sets of fundamental issues that need to be addressed. The first is whether one can identify specific circumstances in which intellectual property rights should be weakened. The difficulty of this task should not be underestimated. In theory, settings with large amounts of potential follow-on innovation would be candidates. But one might argue that innovations that create tools for other innovators are especially in need of intellectual property protection in order to provide sufficient investment incentives. Moreover, conditions affecting the efficacy of licensing would be relevant in assessing whether strong intellectual property rights were beneficial or harmful in such settings. Similarly, one might argue that intellectual property protection should be weaker where the rights holder would otherwise garner significant market power. But

64. See, e.g., Lipsky & Sidak, *supra* note 47, at 1219-20, and Werden, *supra* note 39, at 475, who argue that application of an essential facilities doctrine is likely to harm social welfare by undermining the incentive effects of intellectual property rights.

65. One exception is that there are specific provisions for the semiconductor industry pertaining to mask works fixed in semiconductor chip products. Semiconductor Chip Protection Act of 1984, 17 U.S.C. §§ 901-914 (2000).

one would immediately confront the fundamental logic underlying the patent system: innovations conferring market power are in many circumstances those of the greatest social value and thus are innovations for which private inventors should be provided the greatest protection in order to encourage R&D investment.⁶⁶

The second set of issues concerns the choice of mechanism. There are a variety of ways in which to weaken intellectual property rights in select circumstances. Compulsory licensing is one way, but there are others, such as making it more difficult to obtain patents, changing patent scope through interpretations of the doctrine of equivalents and the doctrine of reverse equivalents,⁶⁷ or modifying application of patent misuse doctrine.⁶⁸

A third, and related, issue is that one must determine which institutions are appropriate for administering such a policy. Even if one concludes that someone should engage in fine-tuning intellectual property rights to reflect competitive conditions or other market characteristics, that someone need not be a competition policy authority. Present antitrust laws and enforcement institutions have not been created with this role in mind.⁶⁹ Moreover, coordination with the Patent and Trademark Office is essential to implementation of a sound overall policy. Absent legislation, using antitrust policy to fine tune intellectual property laws would very likely create more problems than it would solve.

Philip Weiser has touched on all three sets of issues in the area of information platforms or networks. He argues in favor of open access to standards for information platforms and suggests that a mix of intellectual property law and antitrust law provide the vehicle for achieving access.⁷⁰ One element of his proposal is to apply the tools of antitrust analysis to determine when patent policy would allow reverse engineering that enabled parties

66. It is also worth noting that, even if one developed various sets of conditions on which to fine tune, the conditions would have to be defined in ways that limit arbitrage. Faced with differential treatment, patent applicants could be expected to game the system to the extent feasible. For example, if patents for use in a specific industry were accorded particularly favorable treatment, applicants could be expected to argue that their inventions were for use in that industry.

67. Merges & Nelson, *supra* note 16, at 911, 915-16.

68. Lemley & McGowan, *supra* note 55, at 538-39.

69. Werden asserts that courts are unlikely to have the ability to make sound distinctions among industries. Werden, *supra* note 39, at 473-74.

70. See Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 102 COLUM. L. REV. (forthcoming 2002) (unpublished manuscript, on file with The Journal on Telecommunications and High Technology Law).

other than the initial intellectual property rights holder to make their products interoperable with the rights holder's platform.⁷¹ As Professor Weiser points out, the threat of reverse engineering may lead to licensing deals—which economize on the resources otherwise needed to reverse engineer—at lower prices than would occur absent the ability to reverse engineer without running afoul of patent law.⁷² In other words, this policy can in some instances replicate a compulsory licensing policy. However, he also notes that transactions costs may prevent the reaching of licensing agreements and reverse engineering may not always work. Hence, Professor Weiser sees a role for competition policy to supplement intellectual property policy in forcing dominant network standards open.⁷³

V. CONCLUSION

Over fifty years ago, Richard Reik observed that “compulsory licensing of patents has been a bitterly controversial issue for a long time.”⁷⁴ His observation is even truer today. And there is every reason to believe that the controversy over access to intellectual property will continue. At the most fundamental level, the debate over compulsory licensing comes down to two opposing claims. One is that initial innovation will be stifled by the loss of incentives. The other is that follow-on innovation will be stifled by the need to buy off initial innovators.

These claims also lie at the center of the overall debate about the socially optimal strength of intellectual property rights. The Coase theorem tells us that, in the presence of transactions costs, the allocation of intellectual property rights matters. Economic theory and practical experience also tell us that there is no simple rule for allocating property rights that will give the best answer in all situations. Sometimes it is most efficient to give initial inventors strong intellectual property rights. In other situations, it is better to give follow-on inventors more bargaining power by weakening the initial inventor's rights.

In many ways the debate between the-first-inventor-is-king faction and the follow-on-innovation-is-the-lifeblood-of-the-economy faction is an unproductive one. Each faction is too ex-

71. *Id.* at 59. For a summary and analysis of arguments concerning whether to allow reverse engineering aimed at achieving compatibility, see Lemley & McGowan, *supra* note 55, at 523-30.

72. Weiser, *supra* note 70, at 58-59.

73. *Id.* at 59.

74. Reik, *supra* note 18, at 814. Reik notes that the issue was brought before Congress as early as 1877. *Id.*

treme.⁷⁵ And each fails to address how public policy can move away from the extremes. As always, more analysis is needed. Beyond that, the analysis needs to move in a different direction. Instead of simply coming up with still more arguments why intellectual property rights should be strong or weak, research should address the important question of whether there is some way to tune public policy to the conditions of specific industries or markets. The answer must include a description of how this tuning should or could be accomplished. In reaching this answer, policy makers should keep in mind the four principles described above. Intellectual property law and competition policy are intricately and inextricably intertwined. In order to achieve an appropriate division of labor, researchers must analyze the combined workings of intellectual property law and antitrust policies while paying careful attention to public and private institutions.

75. In addition, the arguments are more closely linked than their proponents may care to admit. In some settings, today's entrant is tomorrow's incumbent. In making its investment decisions, a firm that currently is a follow-on innovator may take into account later followers as potential revenue streams. Again, there is a need to look at how the effects of a policy work out within the context of the overall economic system.

DEEP LINKING: POLICY AND RULE CONSIDERATIONS FOR SAFEGUARDING OPEN INTERNET NAVIGATION

ROBERT M. SCOTT*

INTRODUCTION

As courts and legislatures struggle with how to regulate the Internet, they must consider many factors in deciding how to apply and/or modify existing intellectual property, tort, First Amendment, and contract law. This paper discusses these factors in the context of ‘deep linking,’¹ and suggests that there must be a proper balance between initial entitlements and the ability of private parties to negotiate for their redistribution, a balance that preserves the Internet’s open, end-to-end navigability. This balance must consider economic efficiency, individual needs, and the needs of the larger society as a whole.

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1. Linking refers to the use of a hyperlink, which is text or some other element of the webpage such as an image. The hyperlink is programmed with the electronic address of another web page, which may be a different page within the same website, a page on a different website maintained by the same entity, or a page on a completely unrelated site. The user’s computer then retrieves and displays the requested page. See Joshua M. Masur, *Links, Liability, and the Law: The Strange Case of Ticketmaster v. Microsoft*, 23 COLUM.-VLA J.L. & ARTS 419, 421-22 (2000). “Deep linking” refers to the ability of a hyperlink to take the user from a page on one website to a page on a different website other than that other site’s ‘home page’ (i.e., a page ‘below’ the home page). See *id.* at 427. Other current issues related to deep linking include contributory liability for providing links to web pages containing infringing material (see, e.g., *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*, 75 F. Supp. 2d 1290 (D. Utah 1999)), and liability for framing (the use of a link to place protected material owned by another within a border of advertising material or trademarks that creates the impression on the user that the protected material is actually the product of the linking site) (see, e.g., *Futuredontics, Inc. v. Applied Anagramics, Inc.*, No. 97-56711, 1998 U.S. App. LEXIS 17012 (9th Cir. 1998)). These issues are outside the scope of this paper.

Law and policy makers faced with the challenge of determining where these initial entitlements lie may choose a framework based in property or tort. Neither, however, provides an ideal scheme. A strict property-based system might very well give too much protection to website owners, at the expense of information exchange. Of the relevant cases that have addressed the issue thus far, most of them have concluded that intellectual property rules do not protect the owners of websites that are the target of deep links, finding instead greater merit in tort-based claims such as trespass² and unfair competition. Consequently, the line between property and tort blurs when the issue is damage to intellectual property rights. In this confusion lies an opportunity to formulate new policy for deep linking that creates greater certainty as to rights and liabilities, protects the exchange of information over the Internet, and balances the right to exclude with the need for access.

Numerous commentators have attempted to apply existing law to Internet property issues, including deep linking.³ Others have proposed that new rules may be necessary to govern the Internet.⁴ This paper applies an economic rationale to the place-

2. It should be noted that, despite being termed a tort, trespass involves the recognition of an initial property right.

3. See, e.g., William W. Fisher, *Property and Contract on the Internet*, 73 CHI.-KENT L. REV. 1203 (1998) for a discussion of the interplay between intellectual property rights and contract in the Internet context, and a proposal for an initial entitlement that permits deep linking and allows contract and technology to modify the entitlement. Prof. Fisher's article sets forth a detailed framework for entitlements related to property ownership on the Internet in general. This article, with an exclusive focus on deep linking, applies an analytic framework that considers an economic rationale for creating initial entitlements and explores the benefits and risks of the potential rule choices. See also Mark Sableman, *Link Law Revisited: Internet Linking Law at Five Years*, 16 BERKELEY TECH. L.J. 1273, 1337-41 (Fall 2001) (an article published between the writing and publication of the present article that provides a comprehensive overview of linking issues and suggesting, *inter alia*, a presumptive right to link for "reference links" (one that is the functional equivalent of a footnote), the use of trademark confusion analysis to focus on whether consumers are likely to be confused by the use of a link, and preferential treatment for search engines) and Christopher E. Gatewood, Note, *Click Here: Web Links, Trademarks and the First Amendment*, 5 RICH. J.L. & TECH 12, ¶ 47 (Spring 1999), at <http://www.richmond.edu/JOLT/v5i3/gatewood.html> (which proposes a division of websites into commercial and noncommercial categories for the purpose of applying First Amendment, trademark, and misappropriation safeguards to Internet linking practices).

4. See, e.g., Maureen A. O'Rourke, *Property Rights and Competition on the Internet: In Search of an Appropriate Analogy*, 16 BERKELEY TECH. L.J. 561 (Spring 2001) (describing unintended consequences of applying "bricks and mortar" laws to the Internet, and calling for an evaluation of how laws need to be changed to accommodate the differences between the Internet and physical space); John D. Sabba, Jr., Comment, *Internet Property Rights: E-Trespass*, 33 ST. MARY'S L.J. 367, 402-4 (2002) (an article published between the writing and publication of the present arti-

ment of initial linking entitlements and the creation of a deep linking policy, and suggests that a combination of existing law and new, Internet-specific rules is necessary to preserve the open navigability of the Internet. In attempting to develop the arguments for and against potential entitlements, Part I of this paper looks at a few of the relevant cases and their attempts to apply intellectual property, tort, and First Amendment law to deep linking. Part II explores economic theory on social costs and proposes different possible entitlements, facilitating the evaluation of policy objectives and the selection of rules. It discusses alternatives for placement of initial entitlements, including ways to shift the initial allocation through contract, business, and technological solutions to more optimal situations from both economic and social welfare perspectives. Part III discusses the rationales that should inform the crafting of policy and rules that balance the need for efficient information exchange on the Internet and the need to protect a website author's moral rights, such as the ability to control how a web user encounters the author's site. Part IV recommends that an initial "right to link," with limited exceptions, will provide the greatest overall benefit. Part V offers concluding thoughts on the application of the recommended system.

I. THE DEEP LINKING CONTROVERSY

Linking is as fundamental a characteristic of the Internet as is the open standard of TCP/IP Internet language. It is a common component of the experience for both the novice and the experienced net surfer. It is as simple to accomplish as a click of a mouse button on a hyperlink. Without linking, complete Uniform Resource Locator (URL) codes must be entered manually, a task that is often onerous when accessing a web page that is 'deep' within a given website.⁵ Furthermore, a link that leads to a page on another website functions not only to transport the user to a new page, but also to notify the user of the existence of another site that may be of interest. Thus, links constitute a form of free advertising for the linked site and fulfill a social purpose by increasing the efficiency of information exchange. Restrictions on the ability to link would diminish the Internet's

cle, proposing a new statute establishing an Internet trespass cause of action more suitable to the Internet medium than traditional trespass theories).

5. For purposes of this paper, a web page (or page) refers to any single, discrete display linked to a particular URL; a website (or site) refers to a group of such pages that are created and administered by one entity, typically consisting of a *home page* and other pages which a user may link to from the home page ('deep' pages).

utility, decrease the efficient use of human time and energy, and hamper social and economic productivity.

Despite benefits, the owners of linked sites have initiated several lawsuits alleging injury from links created by other, unaffiliated website owners. Clearly, there is something more going on than merely free advertising. If that were the only issue, one might ponder why the linking site does not solicit the linked site for payment for this form of free advertising, or why the linked site does not silently appreciate the increased traffic to its site.

One reason for this litigation is the relation between advertising revenue and the various forms of linking. There are two major types of linking: surface linking and deep linking.⁶ Surface linking takes the user to the home page of a website, its proverbial front door. Website owners are unlikely to complain about surface linking since the user experiences the site as contemplated by the owner. A user comes into the site through the home page, encounters any advertising that it contains, and can navigate to deep pages by following links placed on the website by the website owner.⁷ Deep linking is the subject of greater controversy because it takes the user to a page deep within the website, bypassing the home page and, significant to many website operators, the advertising located there.⁸ Advertisers who pay website owners based on the number of hits on the homepage will not pay for hits directly to deep pages from deep linking, resulting in the loss of a corresponding amount of revenue for the target site.

A second reason for linking-related litigation might be the moral right to control the website experience. Although the parties in the cases discussed below rely primarily on lost advertising revenues, it is plausible that control for its own sake could

6. Links may also be used to move a user within a page or website.

7. There may be concerns in some situations that the use of the linked site's trademark could falsely suggest some association with the linking site or result in dilution of the trademark. Dilution is defined as "the lessening of the capacity of a famous mark to identify and distinguish goods or services, regardless of the presence or absence of: (1) competition between the owner of the famous mark and other parties, or (2) likelihood of confusion, mistake, or deception." 15 U.S.C. § 1127 (2000). Three general types of dilution are blurring (ability to identify a product is weakened), tarnishment (the mark is "associated with an inferior product or portrayed in an unfavorable light"), and diminishment (use by others diminishes the owner's ability to use the mark in advertising). *See id.*

8. In addition, users bypass disclaimers and terms of service that often are located on the home page. Nicos L. Tsilas, *Minimizing Potential Liability Associated with Linking and Framing on the World Wide Web*, 8 COMM'LAW CONSP'CTUS 85, 87 n.22.

become an important part of claims under a theory based on moral rights. Simply put, moral rights extend the protection of copyright law to prevent, *inter alia*, any modification of a work that “would be prejudicial to [the author’s] honor or reputation.”⁹ The legitimacy of this right in the Internet context is suspect as an Internet user can usually bypass a home page by entering the URL of a deep page into the user’s browser. A user can easily obtain the URL by bookmarking the page during a previous visit. Even so, any new policy decision should accord proper consideration to the website author’s moral rights.

Deep linking complaints are based on numerous legal theories, ranging from copyright and trademark infringement to trademark dilution, unfair competition, misappropriation, tortious interference with contract, trespass to chattels,¹⁰ unfair business practices, and unjust enrichment. The few judicial decisions and settlements to date serve as a starting point for further analysis of the deep linking controversy, embracing, for the most part, the primacy of efficient information exchange over the rights of the target websites.

A. *The Shetland Times Case*

In 1995, the *Shetland News*, a Scottish paper, placed as links on its website verbatim copies of the headlines of its competitor, the *Shetland Times*.¹¹ These links took viewers to the articles on deep pages in the *Times*’ website, bypassing the home page and the *Times*’ advertising.¹² In granting an interim edict,¹³ the court held that the “plaintiff had a prima facie case that the incorporation by the defendants in the web site of the headlines provided at the plaintiff’s web site constituted an infringement” of a specific statute that protected content on “cable programmes.”¹⁴ The court also stated that the *Times* had a right to limit access exclusively through the home page, that there was a clear

9. 17 U.S.C. §106A(a)(3)(A) (1994).

10. Trespass to chattels is defined as the “act of committing, without lawful justification, any act of direct physical interference with a chattel [movable or transferable property] possessed by another.” BLACK’S LAW DICTIONARY 1509 (7th ed. 1999).

11. See *Shetland Times, Ltd. v. Wills*, [1997] F.S.R. 604, 606 (Outer House, Oct. 24, 1996) (Westlaw UK). Although this Scottish case carries no precedential value in the United States, it is useful to examine how other common law systems are dealing with deep linking policy questions.

12. *Id.* at 607.

13. An interim edict is the Scottish equivalent of a preliminary injunction. See Martin J. Elgison & James M. Jordan III, *Trademark Cases Arise from Meta-Tags, Frames Disputes Involve Search-Engine Indexes, Web Sites Within Web Sites, as Well as Hyperlinking*, NAT’L LAW J., Oct. 20, 1997, at C6.

14. See *Shetland Times v. Wills*, [1997] F.S.R. at 605.

prospect of lost revenue, and that the *Times* did not gain any advantage by virtue of the links from the *News*' site.¹⁵

Despite the fact that the case settled, the statute and the settlement terms address an important policy concern. The statute reflects a policy heavily favoring private property rights. Consequently, the settlement terms track this policy. The *Times* permitted the *News* to link to the *Times*' site on the condition that the *News* provide attribution to the *Times* under each linked headline. The attribution read "A *Shetland Times* Story," and the *Times*' logo appeared adjacent to each link.¹⁶ Each of these attributions linked to the *Times*' home page. In this manner, the parties shifted the initial entitlement to their mutual benefit.

B. *The Ticketmaster Cases*

Ticketmaster, which sells tickets for a variety of public events, has been involved in two lawsuits, one with Microsoft and one with a rival, Tickets.com. The case against Microsoft involved one of Microsoft's city-specific websites, "Seattle Sidewalk," that, among other features, lists events for which Ticketmaster sells tickets. The parties were discussing a plan to place links on the Microsoft website that would enable users to link directly to deep pages on the Ticketmaster site in order to buy tickets for events identified on the Microsoft site.¹⁷ When negotiations between the parties broke down, Microsoft went ahead with its plan and embedded the deep links. Ticketmaster took exception and initiated a lawsuit.¹⁸

Ultimately, the case was settled, with Ticketmaster giving Microsoft permission to provide links only to Ticketmaster's home page.¹⁹ Without the guidance of any judicial pronounce-

15. *See id.* at 609.

16. Walter A. Effross, *Withdrawal of the Reference: Rights, Rules, and Remedies for Unwelcomed Web-Linking*, 49 S.C. L. REV. 651, 656, citing Publisher's Statement, Internet Dispute Settled, THE SHETLAND TIMES LTD., at <http://www.shetland-times.co.uk/st/internet.htm> (last modified Nov. 11, 1997) (currently unavailable).

17. Jerry R. Kuester & Peter Nieves, *Hyperlinks, Frames, and Meta-Tags: An Intellectual Property Analysis*, 38 IDEA 243, 261 (1998), citing First Amended Complaint, Ticketmaster Corp. v. Microsoft, Inc., CV 97 3055 RAP (C.D. Cal. filed, Apr. 27, 1997), at <http://www.ljx.com/LJXfiles/ticketmaster/complaint.html> (currently unavailable).

18. *Id.* at 261-62. Ticketmaster sought relief under the Lanham Act, the California Business and Professions Code, and California common law of unfair competition and unfair business practices. The Lanham Act, protecting trademark rights and providing relief for a variety of unfair competition claims, is located at 15 U.S.C. §§ 1051-1129.

19. *See* Bob Tedeschi, *Ticketmaster and Microsoft Settle Suit on Internet Linking*, N.Y. TIMES, Feb. 15, 1999, at C6.

ment, the reason for settlement is speculative.²⁰ However, judging from the fact that Ticketmaster was successful in persuading Microsoft to remove the deep links, the underlying policy conception appears to be similar to that of *Shetland Times* in that it recognized a private property right in Ticketmaster. Interestingly, in this case it appears that Ticketmaster stood to potentially receive additional ticket sales revenue as a result of the Microsoft site steering traffic to the Ticketmaster site through deep links. Whatever the size of this commercial gain, it was obviously of less value to Ticketmaster than the integrity of its site.

Ticketmaster's second attempt to prevent deep linking involved linking similar to that in the Microsoft case. However, the suit was against Tickets.com, a competitor of Ticketmaster.²¹ The two competitors sell tickets to different events. When a Tickets.com user requested tickets for an event for which Ticketmaster did not sell tickets, Tickets.com provided a link to the deep page within Ticketmaster's website for its user's desired event. In addition to pursuing legal remedies, Ticketmaster implemented technology to re-route the deep links to its home page. As a result of this re-routing, Tickets.com changed its practice and linked only to Ticketmaster's home page.²² However, the suit continued.

In two preliminary orders, the court expressed doubt that deep linking involved any copyright, trademark, or unfair competition violation, but did recognize that the trespass to chattels, unfair business practices, and tortious interference with prospective business advantage claims might have merit.²³ On the copy-

20. The decision to settle could be based purely on a cost-benefit analysis of going to trial, or it might indicate that one or both sides did not consider the chances of success on the merits very good.

21. The Federal District Court for the Central District of California handed down two orders, one denying in part and approving in part a motion to dismiss, see *Ticketmaster Corp. v. Tickets.com, Inc.*, No. CV 99-7654 HLH(BQRX), 2000 WL 525390 (C.D. Cal. 2000) [hereinafter *Motion to Dismiss*], and one refusing to grant a preliminary injunction, see *Ticketmaster Corp. v. Tickets.com, Inc.*, No. CV 99-7654, 2000 WL 1887522 (C.D. Cal. 2000) [hereinafter *Motion for Preliminary Injunction*], which the Ninth Circuit affirmed without comment, see *Ticketmaster Corp. v. Tickets.com, Inc.*, No. 00-56574, 2001 WL 51509 (9th Cir. 2001).

22. See *Motion for Preliminary Injunction*, *supra* note 21, at 2. Ticketmaster stated in its oral argument that it had lost this technological capacity, and Tickets.com stated that it may begin deep linking again. *Id.* However, in an examination of the Tickets.com website by the author, no links to Ticketmaster sites were found. See TICKETS.COM, at <http://www.tickets.com> (last visited Mar. 30, 2002).

23. The court dismissed several other state law claims, including misappropriation and unjust enrichment, because, on the facts of this case, the court found them to be preempted by federal copyright law. See *Motion to Dismiss*, *supra* note 21, at 4. In a situation where the works at issue are more clearly worthy of copyright protection, these claims may have merit. To this extent, they will be discussed in

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right claim, the court stated that “hyperlinking does not itself involve a violation of the Copyright Act . . . since no copying is involved . . . [but] is analogous to using a library’s card index to get reference to particular items, albeit faster and more efficiently.”²⁴ The court did not dismiss the claim because of Ticketmaster’s allegation that Tickets.com actually copied Ticketmaster event pages onto Tickets.com’s computers for the limited purpose of extracting factual information. However, it did reject Ticketmaster’s contention that it is copyright infringement to take basic facts from publicly available web pages and publish that information without also copying Ticketmaster’s form of expression.²⁵ The court also rejected the notion that copying the URL itself was an infringement; the URL is unprotectable because it “contain[s] functional and factual elements only and not original material.”²⁶ Tickets.com’s use of “spidering”²⁷ was likely analogous to the fair use of reverse engineering to obtain unprotected functional elements approved of by the Ninth Circuit,²⁸ but could have some merit as a trespass to chattels claim if Ticketmaster could show physical harm to its computers or their basic functioning.²⁹

Ticketmaster’s claims under the Lanham Act, state unfair competition law, passing off, and reverse passing off lacked sufficient facts to support a preliminary injunction.³⁰ The court concluded that consumer confusion is unlikely because the

Section III. The court also dismissed a contract claim founded on the “terms and conditions” page of the Ticketmaster website. *See Motion to Dismiss, supra* note 21, at 3. These claims are outside the scope of this paper. R

24. *See id.* at 2.

25. *See id.* *See also* Feist Publ’ns, Inc. v. Rural Tel. Serv. Co., Inc., 499 U.S. 340 (1991) (holding that a subsequent compiler of factual information remains free to use facts contained in the work of another so long as the second work does not feature the same selection and arrangement of those facts).

26. *See Motion for Preliminary Injunction, supra* note 21, at 3. R

27. “Spiders,” also known as web crawlers or robots, scan the Internet for matches to keywords and retrieve the pages. *See* Robyn Greenspan, *Here I Am!*, E-COMMERCE GUIDE, (June 6, 2000), at http://ecommerce.internet.com/solutions/ectips/article/0,1467,6311_388981,00.html (last visited Mar. 30, 2002). Even though Tickets.com made an electronic copy of protected Ticketmaster web pages, the copies were not used competitively, but for the limited purpose of obtaining non-protectable data and were destroyed after performing that function. *See Motion for Preliminary Injunction, supra* note 21, at 3. R

28. *See Sony Computer Entm’t, Inc. v. Connectix Corp.*, 203 F.3d 596 (9th Cir. 2000), *cert. denied*, 531 U.S. 871 (2000).

29. *See Motion for Preliminary Injunction, supra* note 21, at 4. *See generally* eBay, Inc. v. Bidder’s Edge, 100 F. Supp. 2d 1058 (N.D. Cal. 2000). R

30. *See Motion for Preliminary Injunction, supra* note 21, at 5. R

Ticketmaster site is filled with its logos,³¹ and Tickets.com “in no way pretends that it is [Ticketmaster] or acting for it.”³² The court stated that deep linking by itself, without confusion of source, does not necessarily involve unfair competition.³³

Finally, the court found that federal copyright law did not preempt the claims of tortious interference with prospective business advantage or unfair business practices.³⁴ Ticketmaster claimed that its advertisers pay on the basis of the number of hits to the home page, and will not pay for hits to deep pages. It alleged that Tickets.com implemented its deep links for the purpose of decreasing Ticketmaster’s advertising revenue, tortiously interfering with Ticketmaster’s prospective business advantage.³⁵ The unfair business practices claim, that Tickets.com took and published otherwise unprotectable factual data from Ticketmaster, escaped preemption by virtue of an allegation of false advertising.³⁶

Although the case is still pending at the time of this writing, these initial determinations reflect the opinion of the court that current intellectual property law does not provide much support for claims against deep linking. This lack of protection supports the need for a review and, if necessary, a modification of intellectual property rules that addresses the balance between the target site’s interests and the efficient exchange of information. Alternatively, tort law (unfair business practices, tortious interference, and trespass to chattels) might be able to strike the right balance of these competing interests.

C. ACLU v. Miller

In a context different than that of *Shetland Times* and the two Ticketmaster cases, the American Civil Liberties Union of Georgia challenged the constitutionality of a Georgia statute

31. See *id.* Passing off occurs when one party (Tickets.com) sells its products or services as that of another party in order to benefit from the goodwill associated with the other party’s name (Ticketmaster). See BLACK’S LAW DICTIONARY 1146 (7th ed. 1999).

32. See *Motion for Preliminary Injunction*, *supra* note 21, at 5. Reverse passing off occurs when one party (Tickets.com) pretends it is the same as, affiliated with, or sponsored by another party (Ticketmaster). See BLACK’S LAW DICTIONARY 1320 (7th ed. 1999) (defining reverse-confusion doctrine).

33. See *Motion to Dismiss*, *supra* note 21, at 3.

34. In order to avoid preemption by federal copyright law, a complaint must allege an “extra element” that is not equivalent to the rights protected by the Copyright Act. See 17 U.S.C. § 301 (2000), construed in *Nat’l Basketball Ass’n. v. Motorola, Inc.*, 105 F.3d 841 (2d Cir. 1997).

35. See *Motion to Dismiss*, *supra* note 21, at 4.

36. See *id.*

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that criminalized and provided civil remedies for fraudulent and misleading linking involving trademarks, copyrights, logos, or official seals³⁷ on the ground that it was overbroad and violated the First Amendment by sweeping within its boundaries protected speech.³⁸ The statute criminalized the transmission of data that includes a trademark or any similar designation or copyrighted symbol that would falsely state or imply that the transmitter has permission or is legally authorized to use the mark or designation.³⁹

In issuing a permanent injunction against enforcement of the law, the Federal District Court for the Northern District of Georgia read the statute as prohibiting all use of links on web pages, including noncommercial and fair uses.⁴⁰ Despite the court's statement that "[t]he appearance of the [mark], although completely innocuous, would definitely "imply" to many users that permission for use had been obtained," the court found that the defendants "have articulated no compelling state interest that would be furthered by restricting the linking function in this way."⁴¹

In striking down the statute, the court ostensibly created a First Amendment right to link.⁴² Outside of the Internet context, such implied permission would result in a finding of infringement.⁴³ Judge Schoop's novel opinion "arguably suggests that the usual rules governing trademark infringement and unfair competition actions may not apply with equal force where hyperlinks are concerned," and that the First Amendment might restrict the ability of trademark owners to prevent use of their marks in hyperlinks.⁴⁴ This reading of the First Amendment in the Internet context supports a policy that places primacy on the exchange of information and counsels against laws that inhibit First Amendment protections.

D. Search Engines: Ditto.com

The Ditto.com website is home to a visual search engine that allows a user to obtain a list of related websites accompanied by

37. GA. CODE ANN. § 16-9-93.1 (1999).

38. ACLU of Ga. v. Miller, 977 F. Supp. 1228 (N.D. Ga. 1997).

39. GA. CODE ANN. § 16-9-93.1 (1997). The statute also criminalized false identification by use of these same means, which will not be discussed.

40. ACLU, 977 F. Supp at 1233 n.5.

41. *Id.*

42. See Kuester & Nieves, *supra* note 17, at 269.

43. See, e.g., Dallas Cowboys Cheerleaders, Inc. v. Pussycat Cinema, Ltd., 604 F.2d 200, 205 (2d Cir. 1979).

44. Kuester & Nieves, *supra* note 17, at 269.

a visual thumbnail image, rather than descriptive text.⁴⁵ Each thumbnail image provides a deep link into the website from which Ditto obtained the image.⁴⁶ In 1999, a photographer, Leslie Kelly, who posts his photographs to his website, accused Ditto of copyright infringement for using thumbnails of his protected photos in its search results.⁴⁷ The court found Ditto's use of Kelly's photographic images to be a fair use because it was significantly transformative in nature and there was no evidence of market harm to Kelly.⁴⁸

An important distinction to note between this case and the preceding ones is that Ditto operates a search engine. In the court's view, search engines have "established importance" on the Internet.⁴⁹ Although search engines operate as commercial ventures, deriving advertising revenue from banner ads, they only compete with other search engines. Search engines are a hybrid of public service and commercial motivation, providing an essential indexing service for the cost of displaying advertisement that the user can choose to disregard. Their relationship to target sites is essentially noncompetitive in nature insofar as they do not adversely impact the market for the products or services of the target site. Significantly, the fair use justification by the court was based on the absence of market harm to Kelly and implies that deep linking itself may be subject to a market harm test in certain instances: If a website owner can produce empirical evidence of market harm, especially lost advertising revenue, then a claim may exist, potentially under copyright, unfair competition, or trespass theories.

II. ECONOMIC AND CONCEPTUAL FRAMEWORKS: COASE; CALABRESI AND MELAMED

The discussion of the cases in the preceding section illustrates recent attempts to apply established rights regimes to the technology associated with the Internet. At this point we may

45. See *Kelly v. Arriba Soft Corp.*, 77 F. Supp. 2d 1116, 1117 (C.D. Cal. 1999), *aff'd in part, rev'd in part* by 2002 U.S. App. LEXIS 1786 (9th Cir. Feb. 6, 2002). (Ditto was formerly known as Arriba.)

46. *Id.*

47. See *id.* Kelly also claimed that Ditto's use of full-size images infringed his copyrights, a claim that both the District Court and the Court of Appeals upheld. *Id.*

48. See *id.* at 1121. "Transformative" refers to the fact that Ditto's use of the thumbnail versions of Kelly's photographs was not aesthetic, but functional. See *id.* at 1119. These two factors in Ditto's favor outweighed the two fair use factors that favored Kelly: that his work was entitled to strong copyright protection, and that Ditto used the entirety of the protected image. See *id.* at 1121. See also 17 U.S.C. § 107 (2000) (listing fair use factors).

49. See *Arriba*, 77 F. Supp. 2d at 1121.

ask, "What now?" and "Where are the courts and the legislature going?" Or, normatively, "Where should they go?"

The works of Ronald Coase, and Guido Calabresi and Douglas Melamed, provide instructional economic and conceptual frameworks that assist in exploring and understanding potential answers to these questions. Coase applies economic theory to describe the relationship between initial entitlements and the costs related to their reapportionment.⁵⁰ Calabresi and Melamed provide a conceptual framework that classifies three types of entitlement rules that combine property, tort, and contract principles. The discussion of these rules will include reference to the cases associated with each, and provide alternative approaches to deep linking policy.

A. *The Problem of Social Cost*

In analyzing conflicts, the usual reaction is to determine how to prevent party A from inflicting harm on party B.⁵¹ In this situation, there are benefits to party A from inflicting the harm on party B, as well as losses to party B. Party B may gain if party A is prevented from inflicting the harm. From an economic perspective, the question is better put: *should* party A be permitted to harm party B or *should* B be allowed to harm A?⁵² This analysis is in keeping with the premise that an economist compares the total social product yielded by different arrangements.⁵³ In order to answer this question, we need to know the value of each party's gains or losses. In a world without transaction costs,⁵⁴ Coase posits that the parties will always choose the solution that maximizes the value of production.⁵⁵ The role of courts and lawmakers, then, is to set the default rule, to determine "who has the legal right to do what. It is always possible to modify by transactions on the market the initial legal delimitation of rights [I]f such market transactions are costless, such a rearrange-

50. R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

51. *See id.* at 2.

52. *See id.*

53. *See id.* at 34.

54. Transaction costs include such things as finding out which parties one needs to deal with, informing them of the desire to deal, conducting negotiations leading up to the bargain, drawing up contracts and other documents, and enforcing the terms of the contract. *See id.* at 15. It also includes all "disutilities" resulting from an activity or its avoidance that are impossible or difficult to quantify in monetary terms, such as loss of self-determination.

55. *See id.*

ment of rights will always take place if it would lead to an increase in the value of production.”⁵⁶

Coase recognizes and addresses the unrealistic assumption of a costless transaction. Accounting for transaction costs, rearrangements of rights will occur only when the value of production after the rearrangement is greater than the costs necessary to bring it about.⁵⁷ When the value is less, enforcing the initial right is likely to result in the discontinuation of an activity because the actor would not profit by the transaction.⁵⁸ It would cost him more to obtain the right than the value he would gain from the activity. The determination of the initial right is therefore crucial to maximizing the value of production. Unless the initial arrangement brings about the greatest production value, the costs of rearranging the rights may be greater than the resulting production value. This may occur even if the resulting production value is greater than the initial production value as determined by the initial arrangement of rights.⁵⁹ Coase concludes that “[e]ven when it is possible to change the legal delimitation of rights through market transactions, it is obviously desirable to reduce the need for such transactions and thus reduce the employment of resources in carrying them out.”⁶⁰

Courts and legislatures must determine, then, in the context of any particular issue, whether the gain in preventing harm is greater than the loss that occurs elsewhere as a result of stopping the action that causes the harm.⁶¹ To return to the context of deep linking, if a rule prohibits all deep linking but permits parties to transfer the right by contract, the rationale in the Coasean analysis must be that (1) the target site benefits more from the prohibition than the providers of the links themselves would gain were they permitted to continue to link, and (2) we either do not value the ability to deep link, or we think that parties will contract to get the right because the value of deep linking will exceed the transaction cost of obtaining the right to link.

Coase recommends that any analysis should begin with the situation, as it actually exists, then examine the effects of proposed policy changes and “attempt to decide whether the new situation would be, in total, better or worse than the original one.”⁶²

56. *Id.* at 15.

57. *See id.*

58. *See id.* at 16.

59. *See id.*

60. *Id.* at 19.

61. *See id.* at 27.

62. *Id.* at 43.

In the context of deep linking, this requires looking at the current application of existing intellectual property, tort, First Amendment, and contract regimes, then considering changes to them that would lead to greater social productivity. One framework for this sort of analysis examines the placement of the initial entitlements.

B. *One View of the Cathedral*

An influential model framework used in determining where entitlements lie as between those with conflicting interests is that of Guido Calabresi and Douglas Melamed.⁶³ Their framework defines three types of rules: a property rule, a liability rule, and an inalienability rule. Within each type of rule, the initial entitlement can be placed with the target site or the linking site. Reflecting on the cases and exploring the alternatives under each paradigm will illustrate these choices. Except for specific reference to search engines and noncompeting uses, the following discussion centers on linking between sites that compete with one another in some regard.⁶⁴ With some alterations, these categories provide guidance in the deep linking context.

1. The Property Rule

An entitlement based on a property rule vests the initial right in one party. Anyone who desires to claim that right cannot, without penalty, obtain it from the holder “unless the holder sells it willingly and at the price at which he subjectively values the property.”⁶⁵ The property rule involves the least amount of government intervention, for once the right is established, the state plays only a remedial role in deciding its value or conditioning its transfer.⁶⁶ A property rule involving the right to establish

63. See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972). Another useful article that explores the range of entitlements in the Internet context is that of Prof. Fisher. See Fisher, *supra* note 3.

64. Although some commentators have suggested distinguishing between commercial and non-commercial websites for the purpose of allocating initial entitlements, see Gatewood, *supra* note 3, the competitive/non-competitive distinction provides a clearer line, avoiding the problem common to the “commercial” determination inherent in a copyright fair use analysis: many fair uses are made by entities engaged in business for profit, but it is not their intent to usurp the author’s market for the material (e.g., educational uses of copyrighted works by private schools can be fair use, yet the use enhances their ability to provide a service for which they earn revenue). The “noncompetitive” categorization necessarily encompasses non-commercial uses.

65. Calabresi & Melamed, *supra* note 63, at 1105.

66. See *id.* at 1092. The judiciary is, however, involved in resolving disputes and determining damages.

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deep links might give an initial right to link and require the target site to pay the linker not to establish the link. Although this would promote information exchange, it would impose large transaction costs on the target site, as the potential number of linking sites is immense.

Alternatively, the property rule could vest the initial right in the target site, and require a linking site to contract for permission, at the target site's price, to establish a link to it regardless of the presence or absence of market harm. The transaction costs are placed on the linking site and are presumably lower than those that result from vesting the initial right in the linking site. The right could be limited to exclude only competitors, although this would raise definitional problems that may create more transaction costs in judicial labor. The website author's moral rights would be protected by giving him control over how users may experience the site. However, social costs are increased where the target site refuses to reallocate the initial entitlement, frustrating the goal of efficient information access and exchange.

This property rule is evident in *Shetland Times* and both *Ticketmaster* cases. Recall that the court's interim edict in *Shetland Times* indicated its view that the *Times* had a right to be free of deep links under the protections provided by the cable program statute. In the settlement, the *Times* permitted deep links to its site by its competitor, the *News*, on the conditions that the *News* attribute the hyperlinked headlines to the *Times*, and that the *News* provide links to the *Times*' home page. The *Times* did not have to pay the *News* to stop because it held the initial entitlement, instead preferring to allow the deep links according to its own terms. Under this rule, the parties were able to contract away the initial entitlement, with apparently low transaction costs (the *News* must merely create the links and attributions; whether money also changed hands, thereby increasing the transaction costs, is unknown). Likewise, Ticketmaster's settlement with Microsoft, that permitted links only to Ticketmaster's home page, reflects a bargaining position strengthened by a right to exclude under an initial property entitlement with similarly low transaction costs. Finally, the court's suggestion in *Tickets.com*, that a trespass to chattels claim might have merit upon a showing of actual harm, recognizes a property right in relation to the use of spiders to create deep links.

2. The Liability Rule

An entitlement based on a liability rule differs from the property rule in that, despite having the initial entitlement, the

holder cannot exclude others or be excluded, but is entitled to compensation for the destruction of the entitlement based on an objective standard of value set by some entity external to the parties,⁶⁷ typically some organ of the state.⁶⁸ An example of this is the eminent domain clause of the Fifth Amendment that prohibits the taking of private property by the government without just compensation.⁶⁹ Moving from the property rule to the liability rule generally occurs when “there is no reason to believe that a market, a decentralized system of valuing, will cause people to express their true valuations and hence yield results which all would *in fact* agree are desirable.”⁷⁰

Under a liability rule, we may give the linking site the initial right to link, but permit the target site to re-route incoming deep links, as discussed by the *Tickets.com* court.⁷¹ The Calabresi/Melamed version of the liability rule would then require the target site to pay some amount of compensation determined by the legislature, an agency, or a court. This gives rise to the tricky problem of valuation. However, an extension of this rule would enable it to function in the context of deep linking. Instead of requiring the target site to pay the linking site, the ‘charge’ to the target site is only the transaction cost of establishing the means to re-route the deep link to its home page; that is, the rule permits the target site to decide if it is economically beneficial to bother with re-routing the deep link. Any amount it has to spend on re-routing substitutes for payment to the linking party.

This remedy protects the website author’s moral rights, albeit with some cost to the author. However, the moral right is not an absolute right to dictate how a user experiences a website; just as the reader of a book may begin on any tangible page he desires, so too should a web user be able to “flip” directly to any virtual page he desires. Of course, the author charges a set price for the entire book, whereas the common practice in website advertising is to charge for advertising based on the number of hits to the home or other page. Thus, if lost advertising revenue is the basis of harm, the effect of the rule may be to encourage the target site to restructure its advertising revenue scheme rather than employ technological measures to re-route deep links.

67. *See id.* at 1105-06.

68. *See id.* at 1092.

69. U.S. CONST. amend. V. In this example, the court functions to determine the amount of compensation.

70. Calabresi & Melamed, *supra* note 63, at 1107 (emphasis in original).

71. One necessary corollary to this rule would be to prevent outright blocking of deep links.

Under either method, transaction costs are placed on the target site, which is best able to determine the costs and benefits of available remedies. Although restructuring the advertising revenue scheme does not protect moral rights as well as permitting the use of rerouting technologies, the target site can choose which it values more, its moral rights or its advertising revenues.

Alternatively, we may give the target site the right to be free of linking, but require linking parties that establish deep links to pay compensation at a mandated rate to the target site, perhaps with a premium paid by competitors. At the very least, the rule might require the linking site to get permission from the target site by showing that its deep link would not lead to market or functional harm. However, this would place the transaction costs on the linking site, adversely affecting the total social product by potentially decreasing the sum total of deep links on the Internet and, correspondingly, user efficiency.

3. The Inalienability Rule

The third type of rule Calabresi and Melamed identify is the inalienability rule, which describes a law that “not only decides who is to own something and what price is to be paid for it if it is taken or destroyed, but also regulates its sale – by, for example, prescribing preconditions for a valid sale or forbidding a sale altogether.”⁷² An inalienability rule increases overall efficiency where a transaction creates significant costs to third parties, or externalities,⁷³ making it especially well suited to deep linking.

An inalienability rule could create a right to link, but permit a target site to prevent the link upon a showing of market harm. Unfair competition notions would apply to preclude links from competitive sites that do not violate copyright or trademark law⁷⁴ but cause market harm, such as where the deep link, or the spider used to identify that link, causes a loss in advertising revenue or functionality of the target site’s hardware. The target site would be entitled to injunctive relief, thereby protecting moral rights as well. Alternatively, the target site could choose to avoid market harm and the costs of litigation by making adjustments to its advertising scheme or re-routing the link. The transaction costs are placed on the target site since it would have

72. See Calabresi & Melamed, *supra* note 63, at 1111.

73. See *id.*

74. For example, uses where, as in *Arriba*, the copying was only of unprotected factual data, or where the link is a trademark or other unprotected short phrase or slogan. By definition, noncompetitive sites would not compete with or cause market harm to a target site.

better access to information on damages and, from a Coasean perspective, could best determine the economy of pursuing either the judicial, business, or technological remedy.

A rule that creates an inalienable right to link, with the suggested safeguards, promotes efficient information access and exchange and accommodates the First Amendment concerns raised in *ACLU v. Miller*. Noncompetitive websites that fall within the fair use exception, including search engines, presumably cause little or no market harm to the target site. In this incarnation, the rule reaches the level of a compulsory regime, vesting the initial right in the linking site, requiring the target site to permit a noncompetitive site to establish deep links for free. Re-routing would be prohibited. Although the First Amendment and fair use defenses arguably provide an equivalent of this rule, enactment of positive law would create greater certainty than relying on those defenses. This rule reflects the result in *Arriba*, where Ditto's search engine could provide links accompanied by thumbnail copies of the target site's copyrighted images, and would extend to search engines that copy protected text from target sites and display it with the link. Links that fail to satisfy the fair use test (most likely those that adversely affect the market value of the copied material) risk a copyright violation.

An inalienability rule could also preclude any uses of spidering that cause harmful effects by creating a right to use spiders unless the target site shows harm. However, this does not get to the heart of the matter. It does not create a conditional right to be free of deep links, but only a right as to the method of obtaining the URLs necessary to create the links. Those URLs could be obtained through the more painstaking procedure of visiting every website and manually recording the URL of each page. As a practical matter, however, spidering presently is essential to the efficient creation of large numbers of links and thus is crucial to search engines. The inalienability rule provides greater flexibility than a property rule, permitting spidering that does not cause harm, thereby enabling efficient search engine functioning.

Conversely, an inalienability rule might give the target site the right to prevent deep links, and permit the linking site to pay the target site a set fee for the right to establish the link only if certain conditions are met, for example where the linking site is not a competitor or, as in *Tickets.com*, where there is no likeli-

hood of confusion, trademark dilution, or false advertising.⁷⁵ However, this would have the undesirable effect of placing the transaction costs on all noncompetitive sites (including search engines), a number presumably much greater than that of competitive sites. The aggregate transaction costs would be severely detrimental to the goal of a freely navigable Internet. Beneficially, the rule could prohibit links to the target site if the linking site contains content that is against public policy or criminal in nature (for example, a site displaying child pornography), although delicate First Amendment issues are likely to surface under such a rule.

III. CHOOSING THE INITIAL ENTITLEMENT

A mixture of rules protects most entitlements. One example is copyright law. The property rule, with certain exceptions including fair use, applies to the copyright holder's six exclusive rights.⁷⁶ The liability rule applies in various compulsory licensing provisions.⁷⁷ The inalienability rule is found in termination rights, which permit an author to reacquire rights granted away at a specific time in the future.⁷⁸ With numerous choices at hand, what should guide the selection of one or the other regime, or a mixture, and what criteria will decide which party should receive the initial entitlement? Although the preceding discussion refers to various considerations, Calabresi and Melamed provide a useful categorical scheme that defines three rationales: economic efficiency, distributional preferences, and equitable considerations (termed "justice reasons" by Calabresi and Melamed).⁷⁹

A. *Economic Efficiency*

In setting an entitlement with the goal of optimum economic efficiency, the entitlement would lead to the highest total product

75. Note that, under a property rule, there would be no such requirements on any sale of linking rights.

76. See 17 U.S.C. § 106 (2000). A copyright holder has the right to reproduce, prepare derivative works, distribute copies, perform the work publicly, display the work, and, in the case of sound recordings, to perform the work by means of digital audio transmission.

77. See, e.g., 17 U.S.C. § 115 (1994) (establishing a compulsory licensing system to permit a person to make and distribute phonorecords of copyrighted nondramatic musical works and a per-minute royalty rate which, however, is subject to negotiation by the parties, but ultimately may be determined by a royalty arbitration panel).

78. See 17 U.S.C. § 203 (2000).

79. See Calabresi & Melamed, *supra* note 63, at 1093.

for the effort of producing it.⁸⁰ This reflects Coase's principle, that an economist compares the total social product generated by various arrangements.⁸¹ By itself, a pure economic efficiency rationale results in an entitlement that "favors knowledgeable choices between social benefits and the social costs of obtaining them, and between social costs and the social costs of avoiding them," which suggests putting the costs "on the party or activity that can most cheaply avoid them."⁸² Where this is difficult to determine, the costs are put on the party that, with the lowest transaction costs, can act in the market to correct any error in entitlements.⁸³ In the context of deep linking, this requires a comparison between the social benefits and costs of permitting deep linking⁸⁴ and the benefits and costs of prohibiting deep linking.⁸⁵

B. *Distributional Preferences*

Entitlement decisions implicate two types of distributions: a distribution of wealth, and a distribution of certain specific goods, often termed "merit goods."⁸⁶ A completely equal distribution of wealth is impossible in a society with entitlements, as one set of persons will benefit from those entitlements, while others must pay for access.⁸⁷ For example, intellectual property rights distribute financial wealth to the owner of those rights and away from the buyers of access to them; this distribution is different than the result in a society that requires creators to share the fruits of their intellect but which compensates them according to their needs.⁸⁸

Perhaps more importantly for deep linking, the choice of entitlement can influence the distribution of a merit good, in this case, information. If a society wishes to ensure that individuals have access to information in a certain way or at a certain level of

80. *See id.* at 1094.

81. *See supra* text accompanying note 54.

82. Calabresi & Melamed, *supra* note 63, at 1096-97.

83. *See id.* at 1097.

84. Examples of benefits and costs associated with permissive deep linking include increased user efficiency, resulting in increased production; potentially increased numbers of visits to the target site; the cost of technical strategies to defeat deep linking; the loss of goodwill due to trademark dilution.

85. Examples of benefits and costs of prohibiting deep linking include protection of target site's integrity and advertising revenue, and decreased efficiency of information exchange due to the transaction costs of reallocating the right.

86. Calabresi & Melamed, *supra* note 63, at 1098.

87. *See id.* at 1099.

88. *See id.* at 1098-99. Of course, buyers receive a value, but they have to pay for it.

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efficiency, it may choose to create an entitlement that accomplishes these goals.⁸⁹ One example is a competitor's right of non-discriminatory access to unbundled elements of local telephone loops created by the 1996 Telecommunications Act.⁹⁰ Lawmakers must not overlook this concern when selecting the initial entitlements for deep linking.

C. *Equitable Considerations*

The equitable considerations category operates as a catchall, although, as Calabresi and Melamed admit, many of the efficiency and distribution rationales encompass these concerns.⁹¹ They distinguish equitable considerations as those preferences that cannot be easily explained in terms of a few broad distributional preferences.⁹² Examples may be found in consumer welfare, a society of information and ideas, a rich artistic tradition including artistic integrity, a participatory democracy that engenders self-determination, and general sociability and the moral rights of copyright holders.⁹³ These attributes may be especially important in the development of Internet policy in terms of information distribution and self-determination.

The chart below summarizes the foregoing analysis of entitlements and rationales.

IV. RECOMMENDATIONS

The ability to navigate the Internet in a cost-efficient manner is a feature critical to the Internet's past and future utility. Subjecting web users to the burden of wading through a series of web pages of little or no value to the user's current objective will not only decrease social and economic productivity, but also increase user frustration levels and threaten the long-term development of the Internet as the tool of choice for information exchange. A deep linking rule must protect the free exchange of information on the Internet in an efficient manner. It should also prevent tangible harm to website owners. The rule can accommodate some protection of the moral rights of website authors, but this value must be subordinate to the greater societal welfare. Therefore, the initial entitlement should establish a right to link and provide minimal, well-defined exceptions appli-

89. *See id.* at 1100.

90. *See* 47 U.S.C. § 251(c)(3) (Supp. V 1999).

91. *See* Calabresi & Melamed, *supra* note 63, at 1104.

92. *See id.* at 1105.

93. *See* Fisher, *supra* note 3, at 1216-18 (describing his "social-planning" theory of intellectual property).

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INITIAL DEEP LINKING ENTITLEMENTS WITH COSTS AND BENEFITS

		Property Rule	Liability Rule	Inalienability Rule
Initial Entitlement in Target Site	Right	<ul style="list-style-type: none"> not to be linked to linking site pays for right to link 	<ul style="list-style-type: none"> not to be linked to if linked to, only entitled to compensation as determined by external source, such as government agency 	<ul style="list-style-type: none"> not to be linked to right cannot be sold unless certain conditions are met (noncompetitive sites; attribution; no confusion or dilution; no physical harm or functionality impairment) OR sale completely prohibited if to a site that is against public policy or is criminal in nature of content (such as child pornography)
	Benefits	<ul style="list-style-type: none"> prevents competitors from linking and diverting potential advertising revenue, as in the <i>Tickets.com</i> case transaction costs limited to linking site protects moral rights 	<ul style="list-style-type: none"> no transaction costs for target sites compensation at a 'fair' price limited protection for moral rights 	<ul style="list-style-type: none"> potentially high transaction costs because unregulated attribution prevents confusion contributes to self-determination protects moral rights
	Costs	<ul style="list-style-type: none"> hinders justice concerns and distribution of merit goods without proof of market harm 	<ul style="list-style-type: none"> hinders justice concerns and distribution of merit goods increases administrative transaction costs 	<ul style="list-style-type: none"> hinders justice concerns and distribution of merit goods
Initial Entitlement in Linking Site	Right	<ul style="list-style-type: none"> right to link target sites pay to prevent link 	<ul style="list-style-type: none"> right to link, but target site can prevent linking by paying set price, or by using technological means 	<ul style="list-style-type: none"> right to link target site can prevent linking upon showing of market harm can prevent use of spiders upon showing harm to infrastructure or functionality
	Benefits	<ul style="list-style-type: none"> facilitates distribution of merit goods and other justice concerns 	<ul style="list-style-type: none"> facilitates distribution of merit goods and other justice concerns (even re-routed deep links permit user to eventually get to the deep page) contributes to self-determination; protects moral rights 	<ul style="list-style-type: none"> facilitates distribution of merit goods and promotes justice concerns permits competitors to prevent harmful linking
	Costs	<ul style="list-style-type: none"> high transaction costs (potentially unlimited number of linking sites), but this is tolerated if there is little harm to target site or it can avoid loss by advertising redistribution decreases self-determination protection for moral rights must be purchased 	<ul style="list-style-type: none"> high transaction costs (payment; upgrading technology; inefficiency for user) 	<ul style="list-style-type: none"> high transaction costs for competitors, but tolerated if there is little harm to target site or it can avoid loss by advertising redistribution decreases self-determination protection of moral rights conditioned on market harm

cable only in certain circumstances. The positive rule should permit the continued functioning of current law, when appropriate, such as copyright and trademark infringement, unfair competition, and trespass to chattels.

A. *Competing Sites*

In the case of linking sites that compete with the target site,⁹⁴ a liability rule establishing a right to link, combined with authorization for the target site to use technological means to re-route the deep linker to its home page accomplishes the twin goals of protecting site owners from harm and fostering an openly navigable Internet. The target site could also choose to restructure its advertising revenue scheme. The rule assumes potential market harm in terms of lost advertising revenue, potential consumer confusion, and trademark dilution in order to reduce transaction costs and achieve an acceptable compromise between efficiency and control. It provides some control over the integrity of the website but limits it to situations involving competitors. The rule permits the target site to determine whether it is more efficient to re-route the deep link, adjust its advertising, or simply permit the link. The payment involved in this model is not to the linking site (although the target site could always choose to pay the linking site to cease its activity), but is the cost to the target site of the re-routing technologies or advertising adjustments. Even with re-routing, the user will still be able to access the home page of the target site and arrive at the deep page, albeit with slightly greater expense of time and energy. This tradeoff is acceptable in the context of competitors. The rule would allow a trespass to chattels claim to prohibit the harmful use of spiders by competitors upon a showing of actual harm, and any trademark or unfair competition claim where there is confusion or false advertising.

With regard to competitors and non-competitors alike,⁹⁵ a broad property right in the target site is undesirable. Under Coasean analysis, such a rule minimizes transaction costs because the linking site is in the better position to determine whether the benefits outweigh the cost of obtaining the right; however, it undermines the more important consideration—that efficient access to the rapidly expanding information tool provided by the Internet is paramount, to be compromised only

94. Admittedly, there is a degree of uncertainty represented by the definition of competition, and which sites are merely 'complementary.' The determination could look to trademark law for guidance. See Sableman, *supra* note 3, at 1337-38.

95. See discussion, *infra*, Part IV (B).

where the target site can show harm. Refusing to minimize target site transaction costs, and requiring the use of more balanced alternatives available in the form of re-routing or advertising adjustments, promotes this goal.

A broad property right in the linking party also is undesirable. It would impose high transaction costs on the target site to negotiate transfers of the initial entitlement with competitive linking sites. These high transaction costs also impose unacceptable burdens on the target site's moral rights. It is apparent that the property rule is not nuanced sufficiently to handle the subtleties of deep linking.

B. Non-competing Sites

In the case of linking sites that do not compete with the target site, especially search engines and educational sites, an inalienability rule that creates a right to establish deep links, with narrow exceptions for market harm and harmful spidering, achieves the desired result—promoting efficiency, distributional, and equitable concerns by facilitating information access and exchange. Proof of market harm or injurious spidering would be required to permit re-routing and as an element of any civil action.⁹⁶

The harm requirements are based on the presumptions that deep linking by non-competitors enhances the navigability of the Internet, and that it does not enable the linking site to gain a competitive advantage over the target site in the relevant market; without actual harm, there is no reason to permit behaviors that decrease navigational efficiency. This harm includes lost advertising revenue, consumer confusion, trademark dilution, and any impairment associated with spidering. However spidering damage may be calculated, it may be beneficial to set the threshold higher for non-competitive linking sites than for competitive sites in order to place the cost of indexing services on those who stand to benefit most from their existence, websites that sell products and services over the Internet. The target site bears the burden of showing harm because it is in the better position to produce evidence of harm as compared with a requirement that the linking site establish the absence of harm. Furthermore, this arrangement promotes efficiency and distributional goals, protecting information exchange by motivating the

96. This requirement addresses the concern of the *Tickets.com* court, that the use of spiders, absent actual harm, likely constitutes fair use under copyright law, and is not actionable as trespass to chattels without damages.

target site to establish reciprocal links or simply change its advertising scheme rather than initiate litigation. A further exception could be carved out to prevent links from sites that contain illegal content, such as child pornography.

The inalienability rule is preferable to a property or liability rule because these types of rules allow market decisions to frustrate the goal of maximizing efficient Internet navigation.⁹⁷ For example, consider a property rule that would require noncompetitive sites to bargain with target sites for the right to use spidering or other means to collect URLs and provide deep links. Target sites might grant such access upon a showing that the spidering would not cause harm, but might also impose fees on linking sites sufficient to deter deep linking. The transaction costs of such a system would be enormous, threatening the existence of search engines and reducing the functionality of the Internet.

C. *Drawing Lines*

To function correctly, the proposed model requires a method to determine whether a linking site competes with the complaining site. This line-drawing can be based on an analysis borrowed from trademark law, the idea of identical or related fields of goods or services as an element of a likelihood of confusion analysis. Determination of the nature of a site would be a question of fact, although there could be a presumption that the site is noncompetitive, placing the burden of persuasion on the complaining party. Competition with the complaining site should be defined narrowly to encompass only those sites offering close substitute or complementary products. For example, Tickets.com and Ticketmaster both sell event tickets and a finding of competition is obvious, even if they sell tickets for different events. However, if the *Men's Journal* site interviewed an athlete and provided a link to another article about the athlete in *Sports Illustrated*, the two magazines should not be considered substitute products. Even though the two are similar in certain ways (both appeal to people interested in fitness and sports), *Men's Journal* covers a broader range of topics than *Sports Illustrated's* focus on competitive athletics.

97. It should be noted that the inalienability rule provides space for traditional property-based claims, such as copyright or trademark infringement, when the facts of a situation so require.

V. CONCLUSION

The model suggested is not without its problems, particularly the tasks of defining competing sites, legal and illegal content in linking sites, and determining how tolerant of invasion by spiders a website should be. However, the benefits to society of efficient information access and exchange outweigh the costs of determining where the lines should be drawn.

The system of initial entitlements suggested by this paper preserves the open navigability that is characteristic of the Internet while respecting the rights of website owners to control access to their sites in those circumstances where real harm may result. It accomplishes these objectives in the least costly way, optimizing the total social product. Recent court decisions indicate a movement in the direction that this paper advocates. Courts are making this move aboard established property, tort, and contract regimes, and until the legislatures act, they will continue to do so. However, the recommendations of this paper can serve as initial guidelines first to the courts and their efforts under the current legal structure, and then to the legislatures when they act to clarify and simplify the rights and liabilities related to deep linking on the Internet.