

JOURNAL ON TELECOMMUNICATIONS & HIGH TECHNOLOGY LAW

University of Colorado Law School
320-L Wolf Law Building, 401 UCB, Boulder, CO 80309-0401
+1.303.735.1032 • info@jthtl.org • <http://jthtl.org>

POSTMASTER: Please send address changes to the address above.

The Journal on Telecommunications and High Technology Law is an association of students sponsored by University of Colorado Law School and the Silicon Flatirons Center for Law, Technology, and Entrepreneurship.

Subscriptions

Issues are published semiannually. Domestic volume subscriptions are available for \$50.00. City of Boulder subscribers add \$3.74 sales tax. Boulder County subscribers outside the City of Boulder add \$2.21 sales tax. Metro Denver subscribers outside of Boulder County add \$1.85 sales tax. Colorado subscribers outside of Metro Denver add \$1.31 sales tax. International volume subscriptions are available for \$55.00. Inquiries concerning ongoing subscriptions or obtaining an individual issue should be directed to subscriptions@jthtl.org or by mail to the address above. Back issues in sets, volumes, or single issues may be obtained from:

William S. Hein & Co., Inc.
1285 Main Street, Buffalo, NY 14209
p: 1.716.882.2600 • <http://www.wshein.com>
<http://heinonline.org> (for back issues in electronic format)

Cite as: 11 J. ON TELECOMM. & HIGH TECH. L. ___ (2013).

© 2013, Journal on Telecommunications and High Technology Law.

**JOURNAL ON TELECOMMUNICATIONS &
HIGH TECHNOLOGY LAW**

Volume 11

Fall 2013

BOARD OF EDITORS

Editor-in-Chief

ARIELLE BROWN

Managing Editor

JACLYN FREEMAN

Executive Editor

MARGARET MACDONALD

Lead Production Editor

ANDY EVANS

Associate Production Editor

ILIAS POLITIS

Resource Editor

GARRETT ANDERSON

Executive Articles Editor ***Executive Student Note Editor***

AUSTIN CHAMBERS

STEPH RYDER

Articles Editors

TYLER BOSCHERT

IAN KULIASHA

TIM SIMMONS

Student Note Editors

DAVID DIGIACOMO

STEVE MARTYN

JEAN PYUN

LAUREN RAMIREZ

EDITORIAL STAFF

Associate Editors

NICHOLAS GRICE

NICHOLAS HERRICK

GEORGIANA SIMION

GENET TEKESTE

Symposium Editor

AMY ELLIS

Symposium Editor

JOHN COOK

MEMBERS

| | | |
|------------------|-------------------|--------------------|
| MISAM ALI | ALEX KORAL | SHOSHANA ROSENTHAL |
| KATE ARMSTRONG | ADITI KUIKARNI | HANNAH ROOS |
| CHARLIE CLARK | ANDREW MARCHANT | MEGAN ROSE |
| MEGAN COONTZ | BRITTANY MCNAMARA | JAMIE SCHUSTER |
| JEANETTE CUZELLA | CHRISTEN NICKEL | CJ THOMAS |
| ETHAN JEANS | BRAD REVARE | NEAL VICKERY |
| MELISSA JENSEN | EDEN ROLLAND | HAROLD WHIPP |

FACULTY ADVISORS

PAUL OHM

HARRY SURDEN

OFFICE MANAGER

SARA SCHNITTGRUND

THE UNIVERSITY OF COLORADO LAW SCHOOL

FACULTY, 2012-2013

Deans

- PHILIP J. WEISER, *Dean, Charles Inglis Thompson Professor of Law, and Faculty Director and Founder of the Silicon Flatirons Center for Law*. B.A., Swarthmore College; J.D., New York University.
- WAYNE M. GAZUR *Associate Dean for Faculty Development and Professor of Law*. B.S., University of Wyoming; J.D., University of Colorado; LL.M., University of Denver.
- HELEN L. NORTON, *Associate Dean for Academic Affairs and Associate Professor of Law*. B.A., Stanford University; J.D., University of California, Berkeley.
- AHMED A. WHITE, *Associate Dean for Research and Professor of Law*. B.A., Southern University and A&M College; J.D., Yale University.
- WHITING LEARY, *Senior Assistant Dean for Students*. B.A., Williams College; J.D., University of Colorado.
- MARCI FULTON, *Assistant Dean for Outreach, Engagement, and Alumni Relations*. B.A., University of Colorado; J.D., University of Colorado.
- KRISTINE M. JACKSON, *Assistant Dean for Admissions and Financial Aid*. B.S., University of North Carolina; J.D., George Mason University.
- TODD ROGERS, *Assistant Dean for Career Development*. B.S., Trinity University; J.D., University of Texas.

Emeritus Faculty

- NORMAN F. AARONSON, *Clinical Professor Emeritus, Legal Aid and Defender Program*. A.B., Brandeis University; J.D., Boston University.
- HOMER H. CLARK, JR., *Professor Emeritus*. A.B., LL.D., Amherst College; LL.B., LL.M., Harvard University.
- JAMES N. CORBRIDGE, JR., *Professor Emeritus*. A.B., Brown University; LL.B., Yale University.
- TED J. FIFLIS, *Professor Emeritus*. B.S., Northwestern University; LL.B., Harvard University.
- H. PATRICK FURMAN, *Clinical Professor Emeritus, Legal Aid and Defender Program, and Director of Clinical Programs*. B.A., J.D., University of Colorado.
- DAVID S. HILL, *Professor Emeritus*. B.S., J.D., University of Nebraska.
- J. DENNIS HYNES, *Professor Emeritus*. B.A., LL.B., University of Colorado.
- HOWARD C. KLEMME, *Professor Emeritus*. B.A., LL.B., University of Colorado; LL.M., Yale University.
- WILLIAM T. PIZZI, *Professor Emeritus*. A.B., Holy Cross College; J.D. Harvard University; M.A. University of Massachusetts.
- PETER N. SIMON, *Professor Emeritus*. B.S., M.D., University of Wisconsin; J.D., University of California, Berkeley.

NORTON L. STEUBEN, *Professor Emeritus*. A.B., J.D., University of Michigan.
ARTHUR H. TRAVERS, JR., *Professor Emeritus*. B.A., Grinnell College; LL.B.,
Harvard University.
MICHAEL J. WAGGONER, *Professor Emeritus*, A.B., Stanford University; LL.B.
Harvard University

Tenured and Tenure-Track Faculty

J. BRAD BERNTHAL, *Associate Professor of Law, Faculty Director of the Silicon
Flatirons Entrepreneurship Initiative, and Director of LL.M Program in
Entrepreneurial Law*. B.A., University of Kansas; J.D., University of
Colorado.
FREDERIC BLOOM, *Associate Professor of Law*. B.A. Washington University in St.
Louis; J.D., Stanford University.
WILLIAM BOYD, *Associate Professor of Law and Director of the Governor's
Climate and Forests Task Force Project*. B.A., University of North
Carolina, Chapel Hill; J.D., Stanford University; Ph.D., University of
California, Berkeley.
HAROLD H. BRUFF, *Nicholas Rosenbaum Professor of Law*. B.A., Williams
College; J.D., Harvard University.
EMILY M. CALHOUN, *Professor of Law*. B.A., M.A., Texas Tech University; J.D.,
University of Texas.
PAUL F. CAMPOS, *Professor of Law*. A.B., M.A., J.D., University of Michigan.
DEBORAH J. CANTRELL, *Associate Professor of Law and Director of Clinical
Programs*. B.A., Smith College; M.A., University of California, Los
Angeles; J.D.,
University of Southern California.
MING CHEN, *Associate Professor of Law*. B.A., Harvard University; J.D., New
York
University; Ph.D., University of California, Berkley.
RICHARD B. COLLINS, *Professor of Law*. B.A., Yale College; LL.B., Harvard
University.
JUSTIN DESAUTELS-STEIN, *Associate Professor of Law*. B.A., University of North
Carolina, Ashville; J.D., University of North Carolina, Chapel Hill; LL.M.,
Harvard University.
ERIK GERDING, *Associate Professor of Law*. A.B., Duke University; J.D., Harvard
University.
AYA GRUBER, *Professor of Law*. B.A., University of California at Berkeley; J.D.,
Harvard University.
LAKSHMAN D. GURUSWAMY, *Nicholas Doman Professor of International
Environmental Law*. LL.B., Sri Lanka; Ph.D., University of Durham, U.K.
MELISSA HART, *Professor of Law and Director of the Byron R. White Center for
the Study of American Constitutional Law*. B.A., Harvard-Radcliffe
College; J.D., Harvard University.
JENNIFER S. HENDRICKS, *Associate Professor of Law and Co-Director of the
Juvenile and Family Law Program*. B.A., Swarthmore College, J.D.,
Harvard University.
PETER HUANG, *Professor of Law and DeMuth Chair*. A.B., Princeton University;
S.M., Harvard University; J.D., Stanford University; Ph.D., Harvard
University.

SARAH A. KRAKOFF, *Professor of Law and Schaden Chair in Experiential Learning*. B.A., Yale University; LL.B, University of California, Berkeley.

MARK J. LOEWENSTEIN, *Monfort Professor of Commercial Law*. A.B., J.D., University of Illinois.

ALEXIA BRUNET MARKS, *Associate Professor of Law*. B.A., Colgate University; M.S., Purdue University; Ph.D., Purdue University; J.D., Northwestern University.

DAYNA BOWEN MATTHEW, *Professor of Law*. A.B., Harvard-Radcliffe College; J.D., University of Virginia.

SCOTT A. MOSS, *Associate Professor of Law*. B.A., M.A., Stanford University; J.D., Harvard University.

CHRISTOPHER B. MUELLER, *Henry S. Lindsley Professor of Procedure and Advocacy*. A.B., Haverford College; J.D., University of California, Berkeley.

ROBERT F. NAGEL, *Ira C. Rothgerber Professor of Constitutional Law*. B.A., Swarthmore College; J.D., Yale University.

PAUL OHM, *Associate Professor of Law, Faculty Director of the Silicon Flatirons Information Technology and Intellectual Property Initiative, and Faculty Director of LL.M Program in Technology and Intellectual Property Law*. B.S./B.A., Yale University; J.D., University of California, Los Angeles.

SCOTT R. PEPPET, *Professor of Law*. B.A., Cornell University; J.D., Harvard University.

CAROLYN B. RAMSEY, *Professor of Law*. B.A., University of California, Irvine; A.M., J.D., Stanford University.

PIERRE J. SCHLAG, *University's Distinguished Professor and Byron White Professor of Constitutional Law*. B.A., Yale University; J.D., University of California, Los Angeles.

AMY J. SCHMITZ, *Professor of Law*. B.A., Drake University; J.D., University of Minnesota.

ANDREW SCHWARTZ, *Associate Professor of Law*. Sc.B., Brown University; J.D., Columbia University.

ANNA SPAIN, *Associate Professor of Law*. B.A., Denison University; J.D., Harvard University.

MARK SQUILLACE, *Professor of Law*. B.S., Michigan State University; J.D., University of Utah.

HARRY SURDEN, *Associate Professor of Law*. B.A., Cornell University; J.D., Stanford University.

MARIANNE WESSON, *Professor of Law and Wolf Nichol Fellow*. A.B., Vassar College; J.D., University of Texas.

CHARLES F. WILKINSON, *University's Distinguished Professor and Moses Lasky Professor of Law*. B.A., Denison University; LL.B., Stanford University.

Clinical Faculty

DEBORAH J. CANTRELL, *Associate Professor of Law and Director of Clinical Programs*. B.A., Smith College; M.A., University of California, Los Angeles; J.D., University of Southern California.

VIOLETA CHAPIN, *Associate Clinical Professor of Law*. B.A., Columbia College; J.D., New York University.

ANN ENGLAND, *Clinical Professor, Legal Aid and Defender Program*. B.A., University of Michigan; J.D., University of Denver.

CARLA FREDERICKS, *Associate Clinical Professor and Co-Director of the American Indian Law Program*. B.A., University of Colorado; J.D., Columbia Law School.

BLAKE REID, *Assistant Clinical Professor*. B.A., University of Colorado; J.D., University of Colorado.

COLENE ROBINSON, *Clinical Professor, Juvenile and Family Law*. B.A., Valparaiso University; J.D., Loyola University School of Law, Chicago.

MICHAEL SOULES, *Clinical Associate Professor*. B.A., University of Michigan; M.S., University of California, Berkley; J.D., Yale University.

Legal Writing and Appellate Advocacy Faculty

AMY BAUER, *Legal Writing Professor*. B.A., Duke University; J.D., William & Mary School of Law.

AMY GRIFFIN, *Legal Writing Professor and Student Legal Writing Engagement Coordinator*. B.A. Boston College; J.D. University of California, Berkeley.

DEREK H. KIERNAN-JOHNSON, *Legal Writing Professor*. A.B., Princeton University; J.D., University of Michigan.

NATALIE MACK, *Legal Writing Professor*. B.S., University of South Carolina; J.D., University of Colorado.

CORIE ROSEN FELDER, *Legal Writing Professor*. B.A., University of California, Berkeley; J.D., University of California, Los Angeles, School of Law.

GABRIELLE M. STAFFORD, *Legal Writing Professor*. B.A., University of Pennsylvania; J.D., Boston University.

TODD M. STAFFORD, *Legal Writing Professor*. B.A., Southern Methodist University; J.D., Duke University.

Law Library Faculty

ERIK BECK, *Digital Librarian. Digital Services Librarian*. B.A., University of Wisconsin; M.S.I.S., University of Texas.

GEORGIA K. BRISCOE, *Associate Director and Head of Technical Services*. B.S., Washington State University; M.A., University of San Diego; M.L.S., University of Michigan.

ROBERT LINZ, *Head of Public Services and Associate Director of Law Library*. B.A., Wake Forest University; J.D., University of Florida; M.L.I.S., Florida State University.

SUSAN NEVELOW MART, *Associate Professor and Director of the Law Library*. B.A., University of California, Santa Cruz; J.D., Boalt Hall; M.L.I.S., San Jose State University.

LISA SCHULTZ, *Instructional Services Librarian*. B.A., University of Nebraska-Lincoln; J.D., University of Nebraska-Lincoln; M.L.S., University of Missouri-Columbia.

KAREN SELDEN, *Catalog Librarian*. B.S., Pennsylvania State University; M.L.S., Simmons College.

JANE E. THOMPSON, *Head of Faculty Services*. B.A., University of Missouri; M.A., J.D., University of Denver.

FROM THE EDITOR

Information privacy law is increasingly becoming a larger and more important subject of legal scholarship, practice, policymaking, and popular attention. As technology advances so are the ways in which information can be collected and used. How to balance managing this data collection with protecting individual privacy is an ongoing struggle and topic of debate.

The Silicon Flatirons Center for Law, Technology, and Entrepreneurship and the Journal for Telecommunications and High Technology Law examined this rich topic area at the Fifth Annual Privacy Conference entitled the “Technology of Privacy” on January 11, 2013 at the University of Colorado at Boulder.

The Journal on Telecommunications and High Technology Law is pleased to present Omer Tene and Jules Polonetsky’s article, Judged by the Tin Man: Individual Rights in the Age of Big Data, presented at the Technology of Privacy Conference which examines the privacy risks associated with big data and offers potential solutions for addressing the issue. I am also proud to present an article by Scott Wallsten, Two Cheers for the FCC’s Mobility Fund Reverse Auction, evaluating the Federal Communication Commission’s Mobility Fund Phase 1 Auction.

In this issue there are also five student notes from students at the University of Colorado Law School. Kimberly Byer analyzes how current copyright laws can be applied to new technologies and how these technological advances could lead to the death of the First Sale Doctrine. Bryan Hall discusses flaws of the current patent system and offers suggestions for reform. Martina Hinojosa examines the Visual Artists Rights Act and the struggle between emerging art forms and moral rights. Zakary Kessler evaluates the way that the mortgage process is embracing the Internet, and Michael S. Wagner takes a preemptive look at the privacy concerns associated with Google Glass.

I would like to give a special thank you to Executive Editor Margaret Macdonald. Margaret continues to go beyond her required duties and this issue would not be possible without her tireless dedication and refreshing humor. I would also like to thank Managing Editor Jaclyn Freeman for her support this semester. Production Editors Andy Evans and Ilias Politis both deserve high praise for their hard work on getting this issue to

print. Garrett Anderson has done a great job as Resource Editor. Articles Editors Austin Chambers, Tyler Boschert, Ian Kuliasha, and Tim Simmons have all been critical in preparing the articles for print. Student Note Editors Stephanie Ryder, Lauren Ramirez, David DiGiacomo, Steve Martyn, and Jean Pyun have done a wonderful job working with student note writers to help develop and produce high quality articles for our future issues. Associate Editors Nick Grice, Nick Herrick, Georgiana Simion, and Genet Tekeste have been an amazing asset to the board. I also want to give a special thank you to Stephen Walter who selflessly volunteered to assist with the Journal's website. Finally, I want to thank all of our members for their contributions and hard work.

The Journal would not be possible without our outstanding faculty at the University of Colorado Law School. Our faculty advisors Harry Surden and Paul Ohm have provided endless support and advice. Our dean, Philip J. Weiser, is a continued source of encouragement and guidance. We are also grateful to have the support of Blake Reid, former JTHTL Editor-in-Chief. Our journal office manager Sara Schnittgrund has provided invaluable insight, and we are forever grateful for her assistance. Last, but certainly not least, a heartfelt thank you goes out to the Silicon Flatirons Center, in particular Anna Noschese, Jamie Stewart, Cactus Woodworth-Lies, and the Silicon Flatiron Fellows, without their support the Journal would not be possible.

Arielle Brown
Editor-in-Chief

CONTENTS

**THE 5TH ANNUAL PRIVACY SYMPOSIUM: THE TECHNOLOGY OF
PRIVACY**

JUDGED BY THE TIN MAN: INDIVIDUAL RIGHTS IN THE AGE OF
BIG DATA
OMER TENE & JULES POLONETSKY 351

TELECOMMUNICATIONS

TWO CHEERS FOR THE FCC'S MOBILITY FUND REVERSE AUCTION
SCOTT WALLSTEN 369

STUDENT NOTES

THE DEATH OF THE FIRST SALE DOCTRINE
KIMBERLEY BYER 389

A BROKEN PATENT SYSTEM: HOW TO ADDRESS THE CLAIM
CONSTRUCTION PROBLEM IN LITIGATION
BRYAN HALL 411

CHALLENGES FOR EMERGING ART FORMS UNDER THE VISUAL
ARTISTS RIGHTS ACT
MARTINA HINOJOSA 431

GETTING ONE STEP CLOSER TO A COMMERCIAL EMORTGAGE:
U.S. LAW AND NOT TECHNOLOGY IS PREVENTING THE
COMMERCIAL MORTGAGE MARKET FROM TRANSITIONING TO A
PAPERLESS EMORTGAGE
ZAKARY KESSLER 449

GOOGLE GLASS: A PREEMPTIVE LOOK AT PRIVACY CONCERNS
MICHAEL S. WAGNER 475

