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PERMANENT ACADEMIC APPOINTMENTS

UNIVERSITY OF PENNSYLVANIA, Philadelphia, Pennsylvania

John H. Chestnut Professor, Law School	2011–present
Professor, Law School	2007–2011
Professor, Annenberg School for Communication (secondary appointment)	2007–present
Professor, Department of Computer and Information Science, School of Engineering and Applied Science (secondary appointment)	2010–present
Founding Director, Center for Technology, Innovation and Competition	2007–present
Faculty Co-Director, Law and Technology Joint Degree Program	2013–present
Faculty Affiliate, Warren Center in Network and Data Sciences	2013–present
Faculty Affiliate, Penn-Wharton Public Policy Initiative	2013–present
Faculty Affiliate, James Joo-Jin Kim Program in Korean Studies	2012–present
Courses: Internet Law, Telecommunications Law, Privacy, Antitrust, Global Antitrust, Technology and Policy, Introduction to Intellectual Property Law and Policy, Copyright Theory, Comparative U.S. and European Telecommunications Law, Law and Innovation Scholarship Colloquium, Emerging Technologies.	

VANDERBILT UNIVERSITY, Nashville, Tennessee

Professor of Law	2005–2007
Associate Professor of Law	2002–2005
Assistant Professor of Law	1999–2002
Founding Director, Technology and Entertainment Law Program	2005–2007
Courses: Telecommunications Law, Intellectual Property, Antitrust, Legal Process and the Institutions of Lawmaking, Copyright Theory Seminar, Mass Media Law Seminar, Advanced Technology and Entertainment Law Seminar, Comparative Legal Institutions, Advanced Issues in Free Speech Seminar	

VISITING ACADEMIC APPOINTMENTS

FREE UNIVERSITY OF BERLIN, Berlin, Germany	Spring 2015, Spring 2018
UNIVERSITY OF TOKYO, Tokyo, Japan	Summer 2017
UNIVERSITY OF SYDNEY, Sydney, Australia	Summer 2016
THAMMASAT UNIVERSITY, Bangkok, Thailand	Summer 2016
TSINGHUA UNIVERSITY, Beijing, China	Spring 2015
DUKE-GENEVA INSTITUTE IN TRANSNATIONAL LAW, Geneva, Switzerland	Summer 2014
TECHNISCHE UNIVERSITÄT DRESDEN, Dresden, Germany	Fall 2011–Spring 2012
SEOUL NATIONAL UNIVERSITY, Seoul, Korea	Summer 2011
GOETHE UNIVERSITY, Frankfurt, Germany	Spring 2011
WASEDA LAW SCHOOL, Tokyo, Japan	Summer 2010
UNIVERSITY OF PENNSYLVANIA, Philadelphia, Pennsylvania	Spring 2006
VANDERBILT IN VENICE PROGRAM, Venice, Italy	Summer 2005

OTHER LEGAL EMPLOYMENT

HOGAN & HARTSON (now HOGAN LOVELLS), Washington, D.C.	1998–1999
Associate, Appellate Group (headed by John G. Roberts, Jr.)	1996–1997
SUPREME COURT OF THE UNITED STATES, Washington, D.C.	1997–1998
Law Clerk, Chambers of the Honorable Anthony M. Kennedy	
UNITED STATES COURT OF APPEALS FOR THE D.C. CIRCUIT, Washington, D.C.	1995–1996
Law Clerk, Chambers of the Honorable A. Raymond Randolph	
Part-Time Legal Employment	
U.S. DEPARTMENT OF JUSTICE, Antitrust Division, Chicago, Illinois	Summer 1995
U.S. ATTORNEY'S OFFICE, Northern District of Illinois, Chicago, Illinois	Fall 1994
SIDLEY & AUSTIN, Chicago, Illinois, and Washington, D.C.	Summer 1994
FOLEY & LARDNER, Chicago, Illinois	Summer 1993

EDUCATION

J.D. *magna cum laude*, NORTHWESTERN UNIVERSITY SCHOOL OF LAW, Chicago, Illinois 1995

John Paul Stevens Prize (for graduating first in class)
Lowden-Wigmore Prize (for best law review note or comment)
Associate Articles Editor, *Northwestern University Law Review*
National Moot Court Team
Order of the Coif

M.B.A., ANDERSON SCHOOL AT UCLA, Los Angeles, California 1991

Sigoloff Fellowship (for leadership and academic excellence)
Beta Gamma Sigma honors society
Teaching Assistant, Operations Management
President, Asian Management Students Association
Mentor of the Year, Riordan Minority Mentorship Program

A.B. *cum laude*, HARVARD UNIVERSITY, Cambridge, Massachusetts 1986

National Merit Scholar
Deans' List all four years
Course Assistant, Introductory Calculus

PUBLICATIONS

Books

98. THE DYNAMIC INTERNET: HOW TECHNOLOGY, USERS, AND BUSINESSES ARE TRANSFORMING THE NETWORK (AEI Press 2012).

Translated into Japanese as ICT実務のためのインターネット政策論の基礎知識 新刊 (Basic knowledge of Internet policy theory for practical ICT) (Takashi Hatae & Yuma Kotake translators, Keiso Shobo August 10, 2017).

97. NETWORKS IN TELECOMMUNICATIONS: ECONOMICS AND LAW (Cambridge University Press 2009) (with Daniel F. Spulber).
96. THE UNITARY EXECUTIVE: PRESIDENTIAL POWER FROM WASHINGTON TO BUSH (Yale University Press 2008) (with Steven G. Calabresi).

Edited Volumes

95. REGULATING THE CLOUD: POLICY FOR COMPUTING INFRASTRUCTURE (MIT Press August 2015) (coedited with Jean-François Blanchette).
94. CRITICAL CONCEPTS IN INTELLECTUAL PROPERTY LAW: COPYRIGHT, 2 volumes (Edward Elgar Publishing August 2011).

Special Journal Issues

93. *Network Neutrality: Interdisciplinary and Global Perspectives*, 3 COMMUNICATIONS AND CONVERGENCE REVIEW 1–100 (June 2011).

92. *Rough Consensus and Running Code: Integrating Engineering Principles into Internet Policy Debates*, 63 FEDERAL COMMUNICATIONS LAW JOURNAL 341–506 (March 2011).
91. *The Enduring Lessons of the Breakup of AT&T: A Twenty-Five Year Retrospective*, 61 FEDERAL COMMUNICATIONS LAW JOURNAL 1–227 (December 2008).

Book Chapters

90. *Antitrust Enforcement in a Global Context: The U.S. Perspective*, in ANTITRUST PROCEDURAL FAIRNESS (D. Daniel Sokol & Andrew Guzman eds., Oxford University Press forthcoming 2019) (with Hendrik M. Wendland).
89. *Self-Actualization and the Need to Create as a Limit on Copyright*, in COMPARATIVE ASPECTS OF LIMITATIONS AND EXCEPTIONS IN COPYRIGHT LAW (Shyamkrishna Balganes, Wee Loon Ng-Loy, & Haochen Sun eds., Cambridge University Press forthcoming 2019).
88. *Network Neutrality and 5G*, in THE FUTURE OF THE INTERNET – INNOVATION, INTEGRATION AND SUSTAINABILITY (Guenter Knieps & Volcker Stocker eds., Nomos forthcoming 2019) (with Jesse Lambert).
87. *Product Differentiation*, in 1 RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW (Ben Depoorter & Peter Menell eds., Edward Elgar forthcoming 2019).
86. *Internet Decentralization and Its Discontents*, in THE GLOBAL INTERNET GOVERNANCE IN TRANSITION (Eli M. Noam, Raul Katz, & Lorenzo Maria Pupillo eds., forthcoming 2019).
85. *Legal Mechanisms for Governing the Transition of Key Domain Name Functions to the Global Multi-Stakeholder Community*, in 2 WHO RUNS THE INTERNET?: THE GLOBAL MULTI-STAKEHOLDER MODEL OF INTERNET GOVERNANCE 67–77 (Centre on International Governance Innovation & Chatham House 2017) (with Aaron Shull & Paul Twomey).
84. *When Are Two Networks Better than One?: Toward a Theory of Optimal Fragmentation*, in 1 A UNIVERSAL INTERNET IN A BORDERED WORLD: RESEARCH ON FRAGMENTATION, OPENNESS AND INTEROPERABILITY 127–135 (Centre on International Governance Innovation & Chatham House 2016).
83. *Telecommunications and the Internet: TTIP's Digital Dimension*, in RULE-MAKERS OR RULE-TAKERS? EXPLORING THE TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP 371–421 (Jacques Pelkmans & Daniel S. Hamilton eds., Rowman & Littlefield International 2015) (with Andrea Renda).
82. *Cloud Computing, Contractibility, and Network Architecture*, in COMPUTING IN THE CLOUD: AN INTERDISCIPLINARY ANALYSIS 115–133 (Christopher S. Yoo & Jean-Francois Blanchette eds., MIT Press 2015).

81. *Cyber Espionage or Cyber War?: International Law, Domestic Law, and Self-Protective Measures*, in *CYBERWAR: LAW AND ETHICS FOR VIRTUAL CONFLICTS* 175–194 (Jens David Ohlin, Claire Finkelstein, & Kevin Govern eds., Oxford University Press 2015).
80. *Antitrust, the Internet, and the Economics of Networks*, in *OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS* 380–403 (Roger D. Blair & D. Daniel Sokol eds., Oxford University Press 2014) (with Daniel F. Spulber).
79. *The Impact of Codification on the Judicial Development of Copyright*, in *INTELLECTUAL PROPERTY AND THE COMMON LAW* 177–210 (Shyamkrishna Balganesh ed., Cambridge University Press 2013).
78. *The NEBULA Future Internet Architecture*, in *THE FUTURE INTERNET – FUTURE INTERNET ASSEMBLY 2013: VALIDATED RESULTS AND NEW HORIZONS* 16–26 (Lecture Notes in Computer Science, vol. 7858, Alex Galls & Anastasius Gavras eds., Springer 2013) (with Tom Anderson, Ken Birman, Robert Broberg, Matthew Caesar, Douglas Comer, Chase Cotton, Michael Freedman, Andreas Haeberlen, Zack Ives, Arvind Krishnamurthy, William Lehr, Boon Thau Loo, David Mazières, Antonio Nicolosi, Jonathan Smith, Ion Stoica, Robbert van Renesse, Michael Walfish, and Hakim Weatherspoon).
77. *Network Neutrality and the Need for a Technological Turn in Internet Scholarship*, in *ROUTLEDGE HANDBOOK OF MEDIA LAW* 539–555 (Monroe E. Price, Stefaan G. Verhulst, & Libby Morgan eds., Routledge 2012).
76. *New Technologies and Constitutional Law*, in *ROUTLEDGE HANDBOOK OF CONSTITUTIONAL LAW* 485–494 (Mark Tushnet, Thomas Fleiner, & Cheryl Saunders eds., Routledge 2013) (with Thomas Fetzer).
75. *Internet Policy Going Forward: Does One Size Still Fit All?*, in *COMMUNICATIONS LAW AND POLICY IN THE DIGITAL AGE: THE NEXT FIVE YEARS* 51–65 (Randolph J. May ed., Carolina Academic Press 2012).
74. *Introduction*, in *CRITICAL CONCEPTS IN INTELLECTUAL PROPERTY LAW: COPYRIGHT* ix–xxii (Christopher S. Yoo ed., Edward Elgar Publishing 2011).
73. *Network Neutrality after Comcast: Toward a Case-by-Case Approach to Reasonable Network Management*, in *NEW DIRECTIONS IN COMMUNICATIONS POLICY* 55–84 (Randolph J. May ed., Carolina Academic Press 2009).
72. *Network Neutrality and Competition Policy: A Complex Relationship*, in *NET NEUTRALITY OR NET NEUTERING: SHOULD BROADBAND INTERNET SERVICES BE REGULATED?* 25–71 (Thomas M. Lenard & Randolph J. May eds., Springer 2006).

71. *Towards a Differentiated Products Theory of Copyright*, in DEVELOPMENTS IN THE ECONOMICS OF COPYRIGHT: RESEARCH AND ANALYSIS 103–119 (Lisa N. Takeyama, Wendy J. Gordon, & Ruth Towse eds., Edward Elgar Publishing 2005).
70. *The Unfulfilled Promise of Korean Telecommunications Reform*, in LEGAL REFORM IN KOREA 169–198 (Tom Ginsburg ed., RoutledgeCurzon 2004).

Articles in Academic Journals

69. *The Transformation of Transformative Use*, 1 JOURNAL OF LAW AND INNOVATION (forthcoming 2019).
68. *Paul Baran, Network Theory, and the Past, Present, and Future of Internet*, 17 COLORADO TECHNOLOGY LAW JOURNAL (forthcoming 2019).
67. *Copyright and Personhood Revisited*, 2019 UNIVERSITY OF ILLINOIS LAW REVIEW (forthcoming).
66. *James Wilson as the Architect of the American Presidency*, 16 GEORGETOWN JOURNAL OF LAW AND PUBLIC POLICY (forthcoming 2019).
65. *“Everything Not Forbidden Is Permitted”: A U.S. Perspective on Regulation and Innovation*, 10 JOURNAL OF LAW & ECONOMIC REGULATION (forthcoming 2019).
64. *Common Carriage’s Domain*, 35 YALE JOURNAL ON REGULATION 991–1026 (2018).
63. *An Unsung Success Story: A Forty-Year Retrospective on U.S. Communications Policy*, 41 TELECOMMUNICATIONS POLICY 891–903 (November 2017).
62. *Avoiding the Pitfalls of Net Uniformity: Zero Rating and Nondiscrimination*, 50 REVIEW OF INDUSTRIAL ORGANIZATION 509–536 (June 2017).
61. *Wireless Network Neutrality: Technological Challenges and Policy Implications*, 31 BERKELEY TECHNOLOGY LAW JOURNAL 1409–1458 (2016).
60. *Open Source, Modular Platforms, and the Challenge of Fragmentation*, 1 CRITERION JOURNAL ON INNOVATION 619–647 (2016).
59. *Presidential Signing Statements: A New Perspective*, 163 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 1803–1834 (August 2016).
58. *Introduction: The Bounds of Executive Discretion in the Regulatory State*, 163 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 1587–1606 (June 2016) (with Cary Coglianese).

57. *Telecommunications: Competition Policy in the Telecommunications Space*, 85 MISSISSIPPI LAW JOURNAL 779–819 (2016) (with Gene Kimmelman, Maureen K. Ohlhausen, Michael O’Rielly, and Stephen F. Williams).
56. *Modularity Theory and Internet Policy*, 2016 UNIVERSITY OF ILLINOIS LAW REVIEW 1–62.
55. *Moore’s Law, Metcalfe’s Law, and Optimal Interoperability*, 14 COLORADO TECHNOLOGY LAW JOURNAL 87–102 (2015).
54. *An Analysis of the “Terminating Access Monopoly” Concept*, 14 COLORADO TECHNOLOGY LAW JOURNAL 21–36 (2015) (with Jonathan Nuechterlein).
53. *Wickard for the Internet?: Network Neutrality After Verizon v. FCC*, 66 FEDERAL COMMUNICATIONS LAW JOURNAL 415–466 (June 2014).
52. *Merger Review by the Federal Communications Commission: Comcast-NBC Universal*, 45 REVIEW OF INDUSTRIAL ORGANIZATION 295–321 (November 2014).
51. *A Brief Overview of the NEBULA Future Internet Architecture*, ACM SIGCOMM COMPUTER COMMUNICATIONS REVIEW, July 2014, at 81–86 (with Tom Anderson, Ken Birman, Robert Broberg, Matthew Caesar, Douglas Comer, Chase Cotton, Michael J. Freedman, Andreas Haeberlen, Zachary G. Ives, Arvind Krishnamurthy, William Lehr, Boon Thau Loo, David Mazières, Antonio Nicolosi, Jonathan M. Smith, Ion Stoica, Robbert van Renesse, Michael Walfish, and Hakim Weatherspoon).
50. *Possible Paradigm Shifts in Broadband Policy*, 9 I/S: A JOURNAL OF LAW AND POLICY FOR THE INFORMATION SOCIETY 367–396 (Winter 2014) (keynote address).
49. *Technological Determinism and Its Discontents*, 127 HARVARD LAW REVIEW 914–949 (January 2014) (reviewing SUSAN CRAWFORD, CAPTIVE AUDIENCE (2013)).
48. *Is There a Role for Common Carriage in an Internet-Based World?*, 51 HOUSTON LAW REVIEW 545–608 (2013).

Reprinted as *The Questionable Call for Common Carriage: Is There a Role for Common Carriage in an Internet-Based World?*, REGULATION, Summer 2014, at 2.
47. *Protocol Layering and Internet Policy*, 161 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 1707–1771 (May 2013).
46. *The Wires Go to War: The U.S. Experiment with Government Ownership of the Telephone System During World War I*, 91 TEXAS LAW REVIEW 983–1050 (April 2013) (with Michael A. Janson).

45. *When Antitrust Met Facebook*, 19 GEORGE MASON LAW REVIEW 1147–1162 (Summer 2012).
44. *Beyond Coase: Property Theory and Emerging Technologies*, 160 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 2189–2225 (June 2012).
43. *Are Those Who Ignore History Doomed to Repeat It?*, 78 UNIVERSITY OF CHICAGO LAW REVIEW 1627–1685 (Fall 2011) (with Peter Decherney & Nathan Ensmenger) (reviewing TIM WU, *THE MASTER SWITCH* (2010)).
42. *Technologies of Control and the Future of the First Amendment*, 53 WILLIAM & MARY LAW REVIEW 747–775 (November 2011).
41. *Deregulation vs. Reregulation: The Clash of Conflicting Paradigms*, 36 JOURNAL OF CORPORATION LAW 847–867 (Summer 2011).

Reprinted as *A Clash of Regulatory Paradigms: When Should Policymakers Promote Competition, and When Should They Accept and Regulate Monopoly?*, REGULATION, Fall 2012, at 42–49.
40. *Introduction to Special Theme Issue*, 3 COMMUNICATIONS AND CONVERGENCE REVIEW 1–6 (June 2011).
39. *Cloud Computing: Architectural and Policy Implications*, 38 REVIEW OF INDUSTRIAL ORGANIZATION 405–421 (June 2011).

Published with commentary by Michael Salinger, *Discussion of Papers by Bruce Owen and Christopher Yoo*, 38 REVIEW OF INDUSTRIAL ORGANIZATION 435–440 (June 2011).
38. *Promoting the Buildout of New Networks vs. Compelling Access to the Monopoly Loop: A Clash of Regulatory Paradigms*, 4 JOURNAL OF LAW & ECONOMIC REGULATION 7–32 (May 2011).
37. *Rough Consensus and Running Code: Integrating Engineering Principles into Internet Policy Debates*, 63 FEDERAL COMMUNICATIONS LAW JOURNAL 341–356 (March 2011).
36. *The Changing Patterns of Internet Usage*, 63 FEDERAL COMMUNICATIONS LAW JOURNAL 67–89 (December 2010).

Preliminary version published online as *The Challenge of New Patterns of Internet Usage*, in *THE FUTURE OF DIGITAL COMMUNICATIONS: TECHNICAL PERSPECTIVES* 22–37 (Fall 2010), <http://www.twcresearchprogram.com/pdf/TWC%20Technical.pdf>.
35. *Is the Internet a Maturing Market? If So, What Does That Imply?*, COMMUNICATIONS OF THE ACM, August 2010, at 24–26.

34. *Product Life Cycle Theory and the Maturation of the Internet*, 104 NORTHWESTERN UNIVERSITY LAW REVIEW 641–670 (Spring 2010).
33. *Free Speech and the Myth of the Internet as an Unintermediated Experience*, 78 GEORGE WASHINGTON LAW REVIEW 697–773 (June 2010).

Reprinted as *Libertad de expresión y el mito de Internet como una experiencia no intermediada*, 2 REVISTA CHILENA DE DERECHO Y TECNOLOGÍA 11–111 (2013).

Excerpted in VINCENT BLASI, IDEAS OF THE FIRST AMENDMENT 630–633 (2d ed. West Academic Publishing 2012).

Reprinted in ENTERTAINMENT, PUBLISHING AND THE ARTS HANDBOOK 249–325 (Karen B. Tripp ed., 2011 ed., West Academic Publishing 2011).
32. *Foreword to Symposium on Presidential Power in Historical Perspective: Reflections on Calabresi & Yoo's The Unitary Executive*, 11 UNIVERSITY OF PENNSYLVANIA JOURNAL OF CONSTITUTIONAL LAW 241–250 (February 2010).
31. *Innovations in the Internet's Architecture that Challenge the Status Quo*, 8 JOURNAL ON TELECOMMUNICATIONS AND HIGH TECHNOLOGY LAW 79–99 (Winter 2010).

Reprinted as *Network Neutrality or Internet Innovation?*, REGULATION, Spring 2010, at 22–29.
30. *The Convergence of Broadcasting and Telephony: Legal and Regulatory Implications*, 1 COMMUNICATIONS AND CONVERGENCE REVIEW 44–55 (November 2009).
29. *Nonrivalry and Price Discrimination in Copyright Economics*, 157 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 1801–1830 (May 2009) (with John P. Conley).
28. *The Enduring Lessons of the Breakup of AT&T: A Twenty-Five Year Retrospective*, 61 FEDERAL COMMUNICATIONS LAW JOURNAL 1–10 (December 2008).
27. *Toward a Unified Theory of Access to Local Telephone Networks*, 61 FEDERAL COMMUNICATIONS LAW JOURNAL 43–117 (December 2008) (with Daniel F. Spulber).
26. *Rethinking Broadband Internet Access*, 22 HARVARD JOURNAL OF LAW AND TECHNOLOGY 1–74 (Fall 2008) (with Daniel F. Spulber).
25. *Network Neutrality, Consumers, and Innovation*, 2008 UNIVERSITY OF CHICAGO LEGAL FORUM 179–262 (October 2008).
24. *Mandating Access to Telecom and the Internet: The Hidden Side of Trinko*, 107 COLUMBIA LAW REVIEW 1822–1907 (December 2007) (with Daniel F. Spulber).

23. *Is Open Source Software the New Lex Mercatoria?*, 47 VIRGINIA JOURNAL OF INTERNATIONAL LAW 807–836 (Summer 2007) (with Fabrizio Marrella).
22. *What Can Antitrust Contribute to the Network Neutrality Debate?*, 1 INTERNATIONAL JOURNAL OF COMMUNICATION 493–530 (August 2007).
21. *Keeping the Internet Neutral?: Tim Wu and Christopher Yoo Debate*, 59 FEDERAL COMMUNICATIONS LAW JOURNAL 575–592 (June 2007) (with Tim Wu).

Originally published online at LEGAL AFFAIRS: DEBATE CLUB (May 1–4, 2006), http://legalaffairs.org/webexclusive/debateclub_net-neutrality0506.msp.

Reprinted in PATRICIA L. BELLIA, PAUL SCHIFF BERMAN, & DAVID G. POST, CYBERLAW: PROBLEMS OF POLICY AND JURISPRUDENCE IN THE INFORMATION AGE 381–385 (3d ed., West Academic Publishing 2007).

20. *Copyright and Public Good Economics: A Misunderstood Relation*, 155 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 635–715 (January 2007).

Reprinted in CRITICAL CONCEPTS IN INTELLECTUAL PROPERTY LAW: COPYRIGHT 216–296 (Christopher S. Yoo ed., Edward Elgar Publishing August 2011).

19. *Network Neutrality and the Economics of Congestion*, 94 GEORGETOWN LAW JOURNAL 1847–1908 (August 2006).
18. *Network Regulation: The Many Faces of Access*, 1 JOURNAL OF COMPETITION LAW AND ECONOMICS 635–678 (December 2005) (with Daniel F. Spulber).
17. *Beyond Network Neutrality*, 19 HARVARD JOURNAL OF LAW AND TECHNOLOGY 1–77 (Fall 2005).

Excerpted in GLEN O. ROBINSON & THOMAS B. NACHBAR, COMMUNICATIONS REGULATION 697–703 (2008).

16. *On the Regulation of Networks as Complex Systems: A Graph Theory Approach*, 99 NORTHWESTERN UNIVERSITY LAW REVIEW 1687–1724 (Summer 2005) (with Daniel F. Spulber).

15. *Architectural Censorship and the FCC*, 78 SOUTHERN CALIFORNIA LAW REVIEW 669–731 (March 2005).

Published with a response by C. Edwin Baker, *Media Structure, Ownership Policy, and the First Amendment*, 78 SOUTHERN CALIFORNIA LAW REVIEW 733–762 (March 2005).

Reprinted as *Architectural Censorship and the FCC*, REGULATION, Spring 2005, at 22–29.

Reprinted in FIRST AMENDMENT LAW HANDBOOK 639–87 (Rodney A. Smolla ed., 2005–2006 edition).

Reprinted in REGULATING AUDIOVISUAL SERVICES 327–389 (Thomas Gibbons ed., Ashgate 2009).
14. *The Unitary Executive in the Modern Era, 1945–2004*, 90 IOWA LAW REVIEW 601–731 (January 2005) (with Steven G. Calabresi & Anthony J. Colangelo).
13. *The Unitary Executive During the Third Half-Century, 1889–1945*, 80 NOTRE DAME LAW REVIEW 1–109 (November 2004) (with Steven G. Calabresi & Laurence D. Nee).
12. *Would Mandating Network Neutrality Help or Hurt Broadband Competition?: A Comment on the End-to-End Debate*, 3 JOURNAL ON TELECOMMUNICATIONS AND HIGH TECHNOLOGY LAW 23–68 (Fall 2004).

Published with a response by Tim Wu, *The Broadband Debate: A User’s Guide*, 3 JOURNAL ON TELECOMMUNICATIONS AND HIGH TECHNOLOGY LAW 69–95 (Fall 2004).
11. *Copyright and Product Differentiation*, 79 NEW YORK UNIVERSITY LAW REVIEW 212–280 (April 2004).

Reprinted in CRITICAL CONCEPTS IN INTELLECTUAL PROPERTY LAW: COPYRIGHT 147–215 (Christopher S. Yoo ed., Edward Elgar Publishing August 2011).
10. *The Role of Politics and Policy in Television Regulation*, 53 EMORY LAW JOURNAL 255–274 (Winter 2004).

Replying to Thomas W. Hazlett, *All Broadcast Regulation Politics Are Local: A Response to Christopher Yoo’s Model of Broadcast Regulation*, 53 EMORY LAW JOURNAL 233–253 (Winter 2004).
9. *New Models of Regulation and Interagency Governance*, 2003 MICHIGAN STATE-DCL LAW REVIEW 701–715 (Fall 2003).

8. *Rethinking the Commitment to Free, Local Television*, 52 EMORY LAW JOURNAL 1579–1717 (Fall 2003).
7. *The Unitary Executive During the Second Half-Century*, 26 HARVARD JOURNAL OF LAW AND PUBLIC POLICY 667–801 (Summer 2003) (with Steven G. Calabresi).
6. *Access to Networks: Economic and Constitutional Connections*, 88 CORNELL LAW REVIEW 885–1024 (May 2003) (with Daniel F. Spulber).
5. *The Rise and Demise of the Technology-Specific Approach to the First Amendment*, 91 GEORGETOWN LAW JOURNAL 245–356 (January 2003).
4. *Vertical Integration and Media Regulation in the New Economy*, 19 YALE JOURNAL ON REGULATION 171–300 (Winter 2002).
3. *Copyright and Democracy: A Cautionary Note*, 53 VANDERBILT LAW REVIEW 1933–1963 (November 2000).
2. *The Unitary Executive During the First Half-Century*, 47 CASE WESTERN RESERVE LAW REVIEW 1451–1561 (Summer 1997) (with Steven G. Calabresi).

Published with responses by Martin S. Flaherty, *Relearning Founding Lessons: The Removal Power and Joint Accountability*, 47 CASE WESTERN RESERVE LAW REVIEW 1563–1594 (Summer 1997); and Jonathan L. Entin, *Synecdoche and the Presidency: The Removal Power as Symbol*, 47 CASE WESTERN RESERVE LAW REVIEW 1595–1603 (Summer 1997).

1. Comment, *The Constitutionality of Enjoining Criminal Street Gangs as Public Nuisances*, 89 NORTHWESTERN UNIVERSITY LAW REVIEW 212–267 (Fall 1994).

Works in Progress

Municipal Fiber in the U.S.: An Empirical Assessment.

The Supreme Court and Technological Change.

Rethinking Rent Dissipation.

Other Publications

The District Court's AT&T/Time Warner Decision: Insights into the Law of Vertical Integration, CPI ANTITRUST CHRONICLE, August 2018,
<https://www.competitionpolicyinternational.com/the-district-courts-atttime-warner-decision-insights-into-the-law-of-vertical-integration/>.

Hipster Antitrust: New Bottles, Same Old W(h)ine?, CPI ANTITRUST CHRONICLE, April 2018, <https://www.competitionpolicyinternational.com/assets/Uploads/YooApr-2.pdf>.

Bridges II: The Law–STEM Alliance & Next Generation Innovation, 112 NORTHWESTERN UNIVERSITY LAW REVIEW ONLINE 173–76 (2018), https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1255&context=nulr_online.

Reactions to the FCC’s Restoring Internet Freedom Draft Order, PERSPECTIVES FROM FSF SCHOLARS, Dec. 4, 2017, http://www.freestatefoundation.org/images/Reactions_to_the_FCC_s_Restoring_Internet_Freedom_Draft_Order_120417.pdf (with Babette E. Boliek, Timothy J. Brennan, Michelle P. Connolly, Robert W. Crandall, Richard A. Epstein, Justin (Gus) Hurwitz, Daniel A. Lyons, James E. Prieger, and Christopher J. Walker).

A Financial Assessment of Municipal Fiber in the U.S., PENN WHARTON PUBLIC POLICY INITIATIVE ISSUE BRIEF, May 2017 (with Timothy Pfenninger), <http://repository.upenn.edu/pennwhartonppi/45/>.

Evidence-Based Research on Internet Connectivity: A Prerequisite for Effective Policymaking, IEEE INTERNET POLICY LETTER, April 2017 (with Sharada Srinivasan), available at <http://internetinitiative.ieee.org/newsletter/march-2017/evidence-based-research-on-internet-connectivity-a-prerequisite-for-effective-policymaking>.

The Fate of the FCC’s Privacy Rule: A Chat with Law Professor Christopher Yoo, FORBES.COM (February 8, 2017), <https://www.forbes.com/sites/washingtonbytes/2017/02/09/the-fate-of-the-fccs-privacy-rule-a-chat-with-law-professor-christopher-yoo/#318019553180>.

The Tools to Connect the Next Billion People to the Internet Have Been Hiding in Plain Sight, QUARTZ, (December 14, 2016), <https://qz.com/862854/internet-governance-forum-1-world-connected-is-using-tools-that-have-been-hiding-in-plain-sight-to-connect-the-next-billion-people-to-the-internet/>.

Avoiding the Pitfalls of Mobile Fragmentation, EURACTIV (Nov. 22, 2016), <https://www.euractive.com/section/digital/opinion/avoiding-the-pitfalls-of-mobile-fragmentation/>.

Network Neutrality in an Increasingly Diverse World, CPI ANTITRUST CHRON., Autumn 2016, <https://www.competitionpolicyinternational.com/network-neutrality-in-an-increasingly-diverse-world/>.

FCC Ushers in a Troublesome New World for Online Privacy, TECHCRUNCH (Nov. 7, 2016), <https://techcrunch.com/2016/11/07/fcc-ushers-in-a-troublesome-NEW-world-for-online-privacy/> (with David J. Farber).

- Webinar on *Meet the Author Series: Regulating the Cloud*, ASIS&T (September 14, 2016) (with Jean-François Blanchette), <https://www.asist.org/events/meet-the-author-series/regulating-the-cloud-policy-for-computing-infrastructure/>.
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- Net Neutrality: Why It Kills Silicon Valley Culture*, FORTUNE, March 18, 2015, <http://fortune.com/2015/03/18/net-neutrality-rules-why-it-kills-silicon-valley-startup-culture/>.
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Hold Off on Net Neutrality, WASHINGTON POST, January 19, 2007, at A19 (with David Farber, Michael Katz, and Gerald Faulhaber).

Network Neutrality and the Problems with Policymaking Through Merger Conditions, PERSPECTIVES FROM FSF SCHOLARS, January 8, 2007, http://www.freestatefoundation.org/images/Network_Neutrality_and_Mergers-Yoo.pdf.

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The Unitary Executive in Historical Perspective, ADMINISTRATIVE & REGULATORY LAW NEWS, Fall 2005, at 5–6, 13 (with Steven G. Calabresi).

Will the FCC Enter the Final Frontier (or Continue to Boldly Go Where No One Wants to Watch)?, SAN FRANCISCO EXAMINER, May 13–15, 2005, at 17 (with Thomas A. Firey) (also published in the WASHINGTON D.C. EXAMINER and the VANDERBILT LAWYER).

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The Economics of Network Access, ADMINISTRATIVE & REGULATORY LAW NEWS, Summer 2003, at 5–6.

Fighting Traffic on the Disinformation Superhighway, NASHVILLE TENNESSEAN, July 8, 2003, at 7.

The Future of Television, KNIGHT-RIDDER NEWS SERVICE, June 10, 2003.

Law Clerks, in THE OXFORD COMPANION TO AMERICAN LAW 119–20 (Kermit L. Hall et al. eds., Oxford University Press, 2002).

HONORS, FELLOWSHIPS, GRANTS, AND AWARDS

“Legal Barriers to Securing the Routing Infrastructure,” NSF Early-concept Grants for Exploratory Research (EAGER) Program, Division of Computer and Network Systems, Directorate for Computer and Information Science and Engineering, National Science Foundation (September 2017–August 2018).

“Security and Privacy-Aware Cyber-Physical Systems,” NSF/Intel Partnership on Cyber-Physical Systems Security and Privacy, Division of Computer and Network Systems, Directorate for Computer and Information Science and Engineering, National Science Foundation (October 2015–September 2018).

Expert Dialog on “Ordnungsrahmen für die digitale Wirtschaft” (“Regulatory Framework for the Digital Economy”), Reference number: 1 C 4-16/15, Bundesministeriums für Wirtschaft und Energie (BMWi) (Federal Ministry for Economics and Energy), Federal Republic of Germany (July 2015–July 2017).

“Future Trends of Internet Regulations,” Office of the National Broadcasting and Telecommunications Commission, Kingdom of Thailand (May 2015–April 2016).

“NEBULA: A Future Internet That Supports Trustworthy Cloud Computing,” Future Internet Architectures Program, Division of Computer and Network Systems, Directorate for Computer and Information Science and Engineering, National Science Foundation (August 2010–July 2013).

Cy Pres Award on Cloud Computing, New York Bar Foundation (December 2010–June 2013).

Research Project and Workshops on „Netzneutralität -Handlungsbedarf und -optionen des Staates“ (“Network neutrality and options for action by the state”), Reference number I C 4 - 34/11, Bundesministeriums für Wirtschaft und Technologie (BMW) (Federal Ministry for Economics and Technology), Federal Republic of Germany (June 2011–June 2012).

University of Pennsylvania China Research Engagement Fund Grant (2016–2019).

University of Pennsylvania Law School Summer Research Grant (summers 2007–2018).

Vanderbilt University Law School Summer Research Grant (summers 1999–2006).

Vanderbilt University Law and Business Research Grant (July 2002).

Fellow, Center for Communications Law and Policy, University of Southern California Law School (February 12–16, 2001).

OTHER PROFESSIONAL ACTIVITIES

Service to the University of Pennsylvania Law School: Dean’s Search Committee; Supreme Court Chair and Co-Chair, Clerkship Committee; Tenure and Promotions Committee; Nominations Committee; Educational Program Committee; Legal Education Programs, Faculty Advisor of the Asian Pacific American Law Students Association and the Penn Intellectual Property Group.

Service to the University of Pennsylvania: Provost’s Search Committee; University Council Committee on Honorary Degrees; Planning Committee for Workshop Series and Conference on “The New Media, Democracy, and Citizenship,” Penn Program on Democracy and Citizenship.

Service to Vanderbilt University: Clerkship Advisor; Curriculum Committee; Graduate Program Committee; Student-Faculty Relations Committee; Faculty Sponsor of the Asian Pacific American Law Students Association, INSAAF (South Asian Law Students Association), and Antitrust Society.

Broadband Deployment Advisory Committee, Federal Communications Commission (2017–present).

Member, American Law Institute (elected October 20, 2011). Board of Advisers, Restatement Third, Information Privacy Principles (2012–present); Board of Advisers, Restatement Third, Principles for a Data Economy (2018–present).

Co-Convener, Connecting and Enabling the Next Billions, United Nations Internet Governance Forum (2017–present),

Adviser, Global Project on Mobile Use, Pew Research Center (2017–present).

Steering Committee and Project Lead for the Data Working Group, Internet for All, World Economic Forum (2016–present).

Lead for Evidence-Based Research, Internet Inclusion Advancing Solutions, IEEE (2016–present).

Organizer, 1 World Connected (2016–present).

Co-Convener, Dynamic Coalition on Innovative Approaches to Connecting the Unconnected, Internet Governance Forum (2016–present).

Research Fellow, Mannheim Centre for Competition and Innovation (2017–present).

Advisory Board, Law and Technology Centre, Hong Kong University Faculty of Law (2017–present).

Member, Cisco Security Research Advisory Board (2017–present).

Senior Fellow, Centre for International Governance Innovation (2014–present).

Inaugural CITI Fellow, Columbia Institute for Tele-Information, Columbia Business School (2012–present).

Advisory Board, Center for Economics of the Internet, Hudson Institute (2011–present).

Fellow, Center for Global Communications (GLOCOM), International University of Japan (2009–present).

Editorial Board, *Telecommunications Policy* (2018–present).

Editorial Committee, *Latin American Journal of Digital Economy* (2017–present).

Editorial Board, Harvard Papers on Technology Science (H-POTS) (2015–present).

Editorial Board, *International Telecommunications Policy Review* (2014–present).

Editorial Board, *Communications and Convergence Review* (2009–present).

Board of Academic Advisors, Free State Foundation (2008–present).

Advisory Board, Intellectual Property Institute, University of Richmond Law School (2004–present).

Member, Research Advisory Network, Global Commission Internet Governance (2014–2016).

Advisory Council, Program on Global Internet Freedom, Media Institute (2014–2016).

Program Committee, 33rd, 34th, and 35th Annual Telecommunications Policy Research Conference (2004–2007).

Referee for the MIT Press; University of Chicago Press; *Yale Law Journal*; *Harvard Law Review*; *Stanford Law Review*; *University of Pennsylvania Law Review*; *Journal of Law & Economics*; *Journal of Law, Economics & Organization*; *International Review of Law and Economics*; *Jurimetrics*; *Law and Social Inquiry*; *Law and Society Review*; *Communications of the ACM*; *IEEE Communications*; and *Telecommunications Policy*.

Media commentator for *The NewsHour with Jim Lehrer*, *New York Times*, *Washington Post*, *Wall Street Journal*, *Christian Science Monitor*, *Chicago Tribune*, *Los Angeles Times*, *Philadelphia Inquirer*, *All Things Considered* (National Public Radio), *Reuters News Service*, *Voice of America*, *CBS MarketWatch*, *Forbes.com*, *Chronicle of Higher Education*, *CIO Magazine*, *CED Magazine*, *Popular Science*, *Legal Times*.

Admitted to practice in the District of Columbia, Illinois, Supreme Court of the United States, United States Court of Appeals for the District of Columbia Circuit, and the United States Court of Appeals for the Federal Circuit.

SELECTED LEGAL BRIEFS AND COMMENTS

Amicus Brief in *Mozilla v. FCC*, No. 18-1051 (D.C. Circuit filed October 19, 2018).

Reply Comments in *Restoring Internet Freedom*, Notice of Proposed Rulemaking, 32 FCC Record 4434 (2016) (WC Docket No. 17-108) (filed August 30, 2017).

Comments in *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, Notice of Proposed Rulemaking, 31 FCC Record 2500 (2016) (WC Docket No. 16-106) (filed May 27, 2016).

Comments in *Consultation on Differential Pricing for Data Services*, Telecom Regulatory Authority of India (initial comments filed January 7, 2016; reply comments filed January 14, 2016).

Amicus Brief in *U.S. Telecom Association v. FCC*, No. 15-1063 (D.C. Circuit filed August 6, 2015).

- Ex Parte* Submission in *Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Record 5601 (2015) (GN Docket 14-28) (filed December 22, 2014).
- Comments on *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Tenth Broadband Progress Notice of Inquiry, 29 FCC Record 9747 (2014) (GN Docket No. 14-126) (filed September 4, 2014).
- Comments on *Applications of Comcast Corporation, Time Warner Cable Inc., Charter Communications, Inc., and Spinco to Assign and Transfer Control of FCC Licenses Transfer Control of Licensees and Other Authorizations*, Order, 30 FCC Record 3911 (2015) (MB Docket No. 14-57) (filed August 25, 2014).
- Comments on *Network Interconnection*, House Committee on Energy and Commerce (filed August 8, 2014).
- Comments on *Modernizing U.S. Spectrum Policy*, House Committee on Energy and Commerce (filed April 25, 2014).
- Comments on *Preserving the Open Internet*, Public Notice, 25 FCC Record 17905 (2010) (GN Docket No. 09-191), <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020919811> (filed November 4, 2010).
- Comments on *Applications of Comcast Corp., General Electric Co. and NBC Universal, Inc., for Consent to Assign Licenses or Transfer Control of Licensees*, Public Notice, 25 FCC Record 2651 (2010) (MB Docket No. 10-56), <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020472619> (filed May 20, 2010).
- Comments on *Preserving the Open Internet*, Notice of Proposed Rulemaking, 24 FCC Record 13064 (2009) (GN Docket No. 09-191), <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020436054> (filed April 26, 2010).
- Amicus Brief in Support of Petitioners, *Free Enterprise Fund v. Public Company Accounting Oversight Board*, 561 U.S. 477 (2010) (No. 08-861) (filed August 3, 2009).
- Amicus Brief in Support of Appellees, *Reno v. ACLU*, 521 U.S. 844 (1997) (No. 96-511) (filed April 25, 2014).
- Amicus Brief in Support of Petitioners, *Vacco v. Quill*, 521 U.S. 793 (1997) (No. 95-1858), and *Washington v. Glucksberg*, 521 U.S. 702 (1997) (No. 96-110) (filed November 12, 1996).
- Respondent's Brief, *United States v. Lopez*, 514 U.S. 549 (1995) (No. 93-1260) (filed July 19, 1994).

CONFERENCES AND EVENTS ORGANIZED

“Economics of Big Data Workshop,” cosponsored by the Warren Center for Network & Data Sciences, Wharton Competition and Policy Initiative, and the Center for Technology, Innovation and Competition, University of Pennsylvania, Philadelphia, Pennsylvania (December 7–8, 2018).

“Due Process in Competition Law Enforcement: A Comparative Perspective,” cosponsored by the Mannheim Centre for Competition and Innovation and the Center for Technology, Innovation and Competition, University of Pennsylvania, Luxembourg (November 21, 2018).

“Big Data, AI, and Algorithms: Do New Technologies Require New Approaches to Competition Law,” cosponsored by the Mannheim Centre for Competition and Innovation and the Center for Technology, Innovation and Competition, University of Pennsylvania, Centre for European Policy Studies, Brussels, Belgium (November 19, 2018).

“Due Process, Transparency, and Fairness in Antitrust Enforcement: China, Europe, and the U.S.,” Penn Wharton China Center, Beijing, China (November 4, 2018).

Second Annual Junior Faculty Forum on Law and STEM, cosponsored by Stanford Law School, Northwestern University Pritzker School of Law, and the University of Pennsylvania, Northwestern University, Chicago, Illinois (September 28–29, 2018).

“Due Process, Transparency, and Fairness in Antitrust Enforcement: China, Europe, and the U.S.,” Penn Wharton China Center, Beijing, China (June 30, 2018).

Sixth Annual Workshop on Computer Science and the Law, the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 9–10, 2018).

“Enforcing Competition Law—Balancing the Two Pillars of Efficiency and Justice,” cosponsored by the Seoul National University Center for Competition Law and the Center for Technology, Innovation & Competition, Seoul, Korea (April 26, 2018).

“New Perspectives on Spectrum Policy,” cosponsored by the Warren Center on Network & Data Sciences and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 23, 2018).

“The Kinship between Copyright and Patent Law,” Inaugural Conference of the *Journal of Law and Innovation*, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 19, 2018).

Mid-Career Seminar for U.S. Court of Appeals Judges, Federal Judicial Center, Philadelphia, Pennsylvania (April 18, 2018).

- “CTIC@10: The 10th Anniversary Celebration of the Center for Technology, Innovation and Competition,” University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 11, 2018).
- “The Future of Standard Essential Patents: Learning from *Microsoft v. Motorola*’s Legacy,” cosponsored by the Warren Center on Network & Data Sciences and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (March 16, 2018).
- “What’s Next with Net Neutrality?,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 7, 2018).
- “Running on Empty?: The Risk of Trademark Depletion and Possible Solutions,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 9, 2018).
- Preliminary Presentation of “Due Process, Transparency, and Fairness in Antitrust Enforcement: China, Europe, and the U.S.,” Penn Wharton China Center, Beijing, China (November 4, 2017).
- Inaugural Junior Faculty Forum on Law and STEM, cosponsored by Stanford Law School, Northwestern University Pritzker School of Law, and the University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 6–7, 2017).
- “Should Cities Build Fiber Networks: An Empirical Analysis,” cosponsored by the Penn Wharton Public Policy Institute and the Center for Technology, Innovation and Competition, Washington, D.C. (May 24, 2017).
- “The Future of the Internet Ecosystem in a Post-Internet Regulation World,” cosponsored by the Technology Policy Institute and the Center for Technology, Innovation and Competition, Washington, D.C. (May 23, 2017).
- Fifth Annual Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 9–10, 2017).
- “Internet Privacy: Technology and Policy Developments,” Center for Technology, Innovation and Competition, U.S. House of Representatives, Washington, D.C. (May 1, 2017).
- Organizational Meeting for the Project Comparing Competition Law in China, Europe, and the U.S., Penn-Wharton China Center, Beijing, China (August 22, 2016).
- Fourth Annual Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 24–25, 2016).

Roundtable on “Security and Privacy for Cyber-Physical Systems,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 23, 2016).

“The Future of the Internet Ecosystem in a Post-Open Internet Order World,” cosponsored by the Technology Policy Institute and the Center for Technology, Innovation and Competition, Washington, D.C. (January 8, 2016).

“The Bounds of Executive Discretion in the Regulatory State,” cosponsored by the *University of Pennsylvania Law Review* and the Penn Program on Regulation, University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 16–17, 2015) (co-organized with Cary Coglianese).

Philadelphia Area Cyberlaw Colloquium, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 29–30, 2015).

Area Organizer for Antitrust and Economic Regulation, 24th Annual Meeting of the American Law and Economics Association, Columbia University, New York, New York (May 15–16, 2015).

Third Annual Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 12–13, 2015).

“Taking Responsibility for One’s Own Data Privacy and Security: Is It Possible, and How?,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 24, 2015).

“Net Neutrality or Net Diversity?,” cosponsored by the Yale Information Society Project and the Center for Technology, Innovation and Competition, Yale Law School, New Haven, Connecticut (November 18, 2014).

“U.S. vs. European Broadband Deployment: What Do the Data Say?,” cosponsored by the Mannheim Centre for Competition and Innovation and the Center for Technology, Innovation and Competition, Zentrum für Europäische Wirtschaftsforschung (ZEW), Mannheim, Germany (October 22, 2014).

“US vs. European Broadband Deployment,” cosponsored by the Centre for European Policy Studies and the Center for Technology, Innovation and Competition, Brussels, Belgium (October 21, 2014).

“The Open Internet: Is Wireless Different?,” cosponsored by the Penn Wharton Public Policy Initiative and the Center for Technology, Innovation and Competition, Willard Hotel, Washington, D.C. (October 15, 2014).

“The Future of the Open Internet: Options for FCC Regulation,” cosponsored by the Penn Wharton Public Policy Initiative and the Center for Technology, Innovation and Competition, National Press Club, Washington, D.C. (October 1, 2014).

“Should the Internet Be Regulated Like a Public Utility? New Analysis and Lessons from the U.S. and Europe,” cosponsored by the Penn Wharton Public Policy Initiative and the Center for Technology, Innovation and Competition with support from Broadband for America, National Press Club, Washington, D.C. (June 4, 2014).

Second Annual Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 13–14, 2014).

“Current Issues in Internet Law in Europe and the U.S.,” MaCCI & CTIC Telecommunications Workshop 2014, cosponsored by the Mannheim Centre for Competition and Innovation and the Center for Technology, Innovation and Competition, Zentrum für Europäische Wirtschaftsforschung (ZEW), Mannheim, Germany (April 29–30, 2014).

“Patent Reform: Theoretical Propositions and Factual Foundations,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (December 6, 2013).

Inaugural Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (June 24–25, 2013).

“Understanding Entrepreneurship: On IP, Culture and Innovation Environments,” cosponsored by the Bar-Ilan University Faculty of Law and the Center for Technology, Innovation and Competition, Ramat-Gan, Israel (May 20–21, 2013).

“The Evolving Internet,” cosponsored by the *University of Pennsylvania Law Review* and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 19–20, 2012).

“Cloud Computing: Economic and Regulatory Implications,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 24, 2011).

“Equal Access Issues in Communications Law,” cosponsored by the Center for Law & Public Utilities, Seoul National University Law School, and the Center for Technology, Innovation and Competition, Honolulu, Hawaii (November 25, 2010).

“Rough Consensus and Running Code: Bringing Engineering Principles into Internet Policy Debates,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 6–7, 2010).

Area Organizer for Intellectual Property, 19th Annual Meeting of the American Law and Economics Association, University of California at San Diego, San Diego, California (May 15–16, 2009).

“Presidential Power in Historical Perspective: Reflections on Calabresi and Yoo’s *The Unitary Executive*,” cosponsored by the *University of Pennsylvania Journal of Constitutional Law* and the Penn Program on Regulation, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 6–7, 2009).

“Foundations of Intellectual Property Reform,” (co-organized with Gideon Parchomovsky and R. Polk Wagner), cosponsored by the *University of Pennsylvania Law Review* and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 16–17, 2009).

“Lessons from the Breakup of AT&T: A Twenty-Five Year Retrospective,” Penn Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 18–19, 2008).

PRESENTATIONS

Testimony and Presentations Before Governmental Agencies and Organizations

Meeting of the Broadband Deployment Advisory Committee, Federal Communications Commission, Washington, D.C. (December 6, 2018).

Coordination Session for Dynamic Coalitions, Internet Governance Forum, Paris, France (November 14, 2018).

Hybrid Business Models: A Connectivity & Approach, Internet Governance Forum, Paris, France (November 13, 2018).

Overcoming Barriers to Investment in Connectivity, Internet Governance Forum, Paris, France (November 13, 2018).

Main Session on Development, Innovation and Economic Issues, Internet Governance Forum, Paris, France (November 13, 2018).

Dynamic Coalition on Connecting the Unconnected, Internet Governance Forum, Paris, France (November 13, 2018).

Connecting and Enabling the Next Billion – Phase IV, Internet Governance Forum, Paris, France (November 12, 2018).

Panel on *Anti-Monopoly and Anti-Unfair Competition in the Context of the New Economy - A Round Table Centered on the Digital Economy*, International Seminar on Intellectual Property, Standards and Anti-Monopoly Law (“IPSAML”) – China’s Competition Policy in the New Economy: The Retrospect and Prospect of the 10th Anniversary of the Anti-Monopoly Law Enforcement and the Third Anniversary of the Competition Policy Research’s Publication, hosted by: National Industrial Information Security Development Research Center of the Chinese Ministry of Industry and Information Technology, organized by China Electronics Industry Standardization Technology Association Intellectual Property Working Committee, Beijing, China (October 26, 2018).

Panel on *Competition Enforcement and Economic Analysis in Digital Economy*, 6th China Competition Policy Annual Forum on “Competition Policy in A New Era— Retrospect and Prospect of A Decade of the Anti-monopoly Law Enforcement in China,” hosted by the Expert Advisory Committee of the Anti-Monopoly Commission, State Council of China, and organized by the Competition Law Center, University of International Business and Economics, Beijing, China (August 1, 2018).

Meeting of the Broadband Deployment Advisory Committee, Federal Communications Commission, Washington, D.C. (July 26–27, 2018).

Meeting of the Ad Hoc Committee on Rates and Fees, Broadband Deployment Advisory Committee, Federal Communications Commission, Washington, D.C. (June 11, 2018).

Public Roundtable on Anticompetitive Effects of Regulation, Antitrust Division, U.S. Department of Justice, Washington, D.C. (May 31, 2018).

Briefing on Ad Tech, Online Consumer Data Collection and Consumer Privacy in the Age of Algorithms, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, U.S. Senate Committee on Commerce, Science, and Transportation Hearing Room, Washington, D.C. (May 7, 2018).

Briefing on Ad Tech, Online Consumer Data Collection and Consumer Privacy in the Age of Algorithms, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, U.S. House of Representatives Committee on Energy and Commerce Hearing Room, Washington, D.C. (May 7, 2018).

Meeting of the Broadband Deployment Advisory Committee, Federal Communications Commission, Washington, D.C. (April 25, 2018).

Panel on *Law 2050: Technology and the Future of Law*, Mid-Career Seminar for U.S. Court of Appeals Judges, Federal Judicial Center, Philadelphia, Pennsylvania (April 18, 2018).

Non-Governmental Advisor, Annual Meeting 2018, International Competition Network, Competition Commission of India, New Delhi, India (March 20–22, 2018).

- Meeting of the Ad Hoc Committee on Rates and Fees, Broadband Deployment Advisory Committee, Federal Communications Commission, Washington, D.C. (March 14, 2018).
- Meeting of the Broadband Deployment Advisory Committee, Federal Communications Commission, Washington, D.C. (January 23–24, 2018).
- Dynamic Coalition on Connecting the Unconnected, Internet Governance Forum, Geneva, Switzerland (December 21, 2017).
- Coordination Session for Dynamic Coalitions, Internet Governance Forum, Geneva, Switzerland (December 21, 2017).
- Main Session for Dynamic Coalitions, Internet Governance Forum, Geneva, Switzerland (December 20, 2017).
- Workshop on *Internet Inclusion Solutions: Shaping the Digital Future*, Internet Governance Forum, Geneva, Switzerland (December 20, 2017).
- Workshop on *Realizing SDGs through Policies Enabling Digital Trade*, organized by the U.S. Council on International Business, IEEE, and the National Telecom Regulatory Authority of Egypt Internet Governance Forum, Geneva, Switzerland (December 19, 2017).
- Session on *Connecting and Enabling the Next Billion – Phase III*, Internet Governance Forum, Geneva, Switzerland (December 18, 2017).
- Open Dialogue for *Collaboration in the Digital Economy and Society*, organized by the World Economic Forum, Internet Governance Forum, Geneva, Switzerland (December 17, 2017).
- Open Forum Session on *Working Toward Universal Access: Educate, Engage and Empower*, organized by IEEE, Internet Governance Forum, Geneva, Switzerland (December 17, 2017).
- I World Connected*, Broadband R&D Task Force, Networking and Information Technology Research and Development Program, Washington, D.C. (November 28, 2017).
- Meeting of the Broadband Deployment Advisory Committee, Federal Communications Commission, Washington, D.C. (November 9, 2017).
- Antitrust and Platforms*, 6th China Competition Policy Forum on “Competition Policy in the Context of Economic Globalization,” commissioned by the Expert Advisory Committee of the Anti-Monopoly Commission, State Council of China, and hosted by the Center for Competition Law and Policy, Shanghai Jiao Tong University, Shanghai, China (August 31, 2017).
- Meeting of the Broadband Deployment Advisory Committee, Federal Communications Commission, Washington, D.C. (July 20, 2017).

Panel on *Back to the Future: Net Neutrality – Where We’re Going, We Don’t Need . . . Regulations (or Do We?)*, NARUC Summer Policy Summit, National Association of Regulatory Utility Commissioners, San Diego, California (July 18, 2017).

Transportation and Communications Committee, 85th Annual Meeting of the U.S. Conference of Mayors, Miami, Florida (June 24, 2017).

Information Technology & Communications Federal Advocacy Committee, National League of Cities Summer Board and Leadership Meeting, Cleveland, Ohio (June 20, 2017).

Highlighting the Impact of Grassroots Connectivity Projects, World Summit on the Information Society (WSIS) Forum 2017, Geneva, Switzerland (June 16, 2017).

Panel on “Digital Transformation for Sustainable Development,” Special Session on Sustainable Development Goal 9, co-hosted by the International Telecommunications Union (ITU) and the United Nations Industrial Development Organization (UNIDO), Geneva, Switzerland (June 15, 2017).

Conference on “Towards a Digital Single Market: Competition Law Has Parts to Play,” co-organized by the Association of European Competition Law Judges, the European Commission, and the Austrian Judiciary, Vienna, Austria (June 9, 2017).

Organizational Meeting of the Broadband Deployment Advisory Committee, Federal Communications Commission, Washington, D.C. (April 21, 2017).

Workshop on “Competition Policies in the Digital Era,” Research Institute of Economy, Trade and Industry, Tokyo, Japan (March 7, 2017).

Meeting on *Broadband Competition and the Role of the Federal Communications Commission*, cosponsored by the National Academies of Sciences, Engineering, and Medicine and the General Accountability Office, Washington, D.C. (February 23, 2017).

Recommendations for Developing a Consistent Approach and Best Practices, Accelerating Progress Towards the SDGs Through Universal Internet Access: Landscaping Connectivity Efforts and Catalyzing Innovative Business Models in 2017, United States Agency for International Development, Washington, D.C. (February 22, 2017).

IGF Best Practice Forums and Policy Options for Connecting the Next Billion(s), Internet Governance Forum, Guadalajara, Mexico (December 9, 2016).

Dynamic Coalition Main Session, Internet Governance Forum, Guadalajara, Mexico (December 8, 2016).

Dynamic Coalition Session on *Innovative Approaches to Connecting the Unconnected*, Internet Governance Forum, Guadalajara, Mexico (December 7, 2016).

- Exploring Demand-Side Drivers of Internet Adoption*, Internet Governance Forum, Guadalajara, Mexico (December 6, 2016).
- Initiatives Connecting the Unconnected: Where's the Data?*, Internet Governance Forum, Guadalajara, Mexico (December 6, 2016).
- Open Forum Session on *Internet for All: Improving Global and Regional Coordination*, co-hosted by the World Economic Forum, Global Connect, IEEE, ISOC, ITU, and the World Bank, Internet Governance Forum, Guadalajara, Mexico (December 5, 2016).
- Seminar on *Open Source and the Relevant Regulation*, cosponsored by the Open Innovation Network, Electronic Intellectual Property Center of the Chinese Ministry of Industry and Information Technology, and the University of International Business and Economics, Beijing, China (November 29, 2016).
- Session on *NexGen Internet: IMT 2020, White Spaces, Solar Planes and Loon – Can India Become the Republic of Technologies?*, India Telecom 2016: 9th International Conference on ICT & Digital Technology, jointly organized by the Department of Telecommunications, Ministry of Communications, Government of India, and the Federation of Indian Chambers of Commerce and Industry (FICCI), New Delhi, India (November 1, 2016).
- Case Studies on Broadband Deployment and Adoption*, ITU-Intel Forum on Digital Transformation, Rabat, Morocco (November 9, 2016).
- Panel on *The Application of Competition Rules in Internet Industry*, 5th China Competition Policy Annual Forum on “Implementation of Competition Policy in Supply-Side Structural Reform,” hosted by the Expert Advisory Committee of the Anti-Monopoly Commission, State Council of China, and organized by the Competition Law Center, University of International Business and Economics, Beijing, China (October 27, 2016).
- Competition Law in the Information Economy*, Competition Policy Research Centre, Japan Fair Trade Commission, Tokyo, Japan (August 19, 2016).
- Training Project on *Communications and Digital Economy: Conceptual Framework and International Practices*, cosponsored by Thammasat University and the National Broadcasting and Telecommunications Commission of Thailand, Bangkok, Thailand (July 11–15, 2016).
- Seminar on *The Future of Internet Regulation*, National Broadcasting and Telecommunications Commission, Bangkok, Thailand (May 3–4, 2016).
- Briefing on *Empirical Studies of U.S. vs. European Broadband Coverage and Municipal Fiber in the U.S.*, Ofcom, London, United Kingdom (December 1, 2015).
- Panel on *Zero Rating, Open Internet and Freedom of Expression*, Internet Governance Forum, Joao Pessoa, Brazil (November 13, 2015).

Main Session on *A Dialogue on Zero-Rating and Network Neutrality*, Internet Governance Forum, Joao Pessoa, Brazil (November 12, 2015).

Panel on *Economics of Global Internet Deployment*, Internet Governance Forum, Joao Pessoa, Brazil (November 11, 2015).

Panel on *Net Neutrality: Yes, No or Maybe?*, Internet Governance Forum, Joao Pessoa, Brazil (November 11, 2015).

Briefing on Policies for Promoting Broadband Deployment, United States Mission to the European Union, Brussels, Belgium (May 8, 2015).

Panel on “The FCC’s Open Internet Proposals, Section 706, the Communications Act, and the Role of the States,” Federal-State Joint Conference on Advanced Services, California Public Utility Commission, San Francisco, California (November 19, 2014).

U.S. vs. European Broadband Deployment: What Do the Data Say?, Thought Leaders Speaker Series, California Public Utility Commission, San Francisco, California (October 2, 2014).

Discussant, Roundtable on *Policy Approaches to Ensure an Open Internet*, Federal Communications Commission, Washington, D.C. (September 16, 2014).

Discussant on Economic Perspectives, Main/Focus Session on *Network Neutrality: Towards a Common Understanding of a Complex Issue*, Internet Governance Forum, Istanbul, Turkey (September 3, 2014).

Panel on *Internet Governance: A Case for Variable Geometry?*, Internet Governance Forum, Istanbul, Turkey (September 3, 2014).

Examining the Comcast-Time Warner Cable Merger and the Impact on Consumers: Hearing Before the Senate Committee on the Judiciary, 113th Congress (April 9, 2014).

The FTC at 100: Views from the Academic Experts: Hearing Before the Subcommittee on Commerce, Manufacturing, and Trade, House Committee on Energy and Commerce, 113th Congress (February 28, 2014).

Report on “Die Netzneutralitätsdebatte im internationalen Vergleich” (The Network Neutrality Debate in International Comparison), Bundesministeriums für Wirtschaft und Technologie (BMWi) (Federal Ministry for Economics and Technology), Berlin, Germany (October 2013) (with Irene Bertschek, Fabienne Rasel, and Florian Smuda).

Workshop on “Multistakeholderism and the Dynamic Internet on Internet Governance,” Internet Governance Forum, Nusa Dua, Indonesia (October 24, 2013).

- Keynote Address on *Net Neutrality – The US Perspective* and Panel Discussion on *Netzneutralität im internationalen Kontext (Net Neutrality in the International Context)*, Workshop on „Netzneutralität in der internationalen Debatte“ (“Net Neutrality in the International Debate”), Bundesministeriums für Wirtschaft und Technologie (BMWi) (Federal Ministry for Economics and Technology), Berlin, Germany (November 27, 2012).
- Network Neutrality: Economic, Technological, and Legal Considerations*, Korea Information Society Development Institute, Kwacheon, Korea (August 1, 2011).
- Network Neutrality: Current U.S. Developments and Technological Critique*, Korea Information Society Development Institute, Kwacheon, Korea (July 25, 2011).
- Consumers, Competition, and the Consolidation in the Video and Broadband Market: Hearing Before the Senate Committee on Commerce, Science, and Transportation*, 111th Congress (March 11, 2010).
- Innovation, Investment, and the Open Internet: Workshop Before the Federal Communications Commission*, Massachusetts Institute of Technology Media Lab, Cambridge, Massachusetts (January 13, 2010).
- Piracy of Live Sports Broadcasting Over the Internet: Hearing Before the House Committee on the Judiciary*, 111th Congress (December 16, 2009).
- The Internet Freedom Preservation Act of 2008: Hearing on H.R. 5353 Before the Subcommittee on Telecommunications and the Internet*, House Committee on Energy and Commerce, 110th Congress (May 6, 2008).
- Net Neutrality and Free Speech on the Internet: Hearing Before the Task Force on Competition Policy and Antitrust Laws*, House Committee on the Judiciary, 110th Congress 53–63, 78, 80–82, 84, 89–92, 98–99 (March 11, 2008).
- Broadband Network Management Practices: Public En Banc Hearing Before the Federal Communications Commission*, Harvard Law School, Cambridge, Massachusetts (February 25, 2008).
- Broadband Connectivity Competition Policy: Public Workshop Before the Federal Trade Commission*, Washington, D.C. (February 14, 2007).
- Media Ownership: Hearing Before the Federal Communications Commission*, Belmont University, Nashville, Tennessee (December 11, 2006).
- Presidential Signing Statements: Hearing Before the Senate Committee on the Judiciary*, 109th Congress 22–24, 29–30, 32–34, 36–37, 85–94, 247–58 (June 27, 2006).

Nomination of John G. Roberts, Jr., as Chief Justice of the United States: Confirmation Hearing Before the Senate Committee on the Judiciary, 109th Congress 518–20, 1437–40 (September 15, 2005).

Scholarly Presentations

Empirical Analysis of Innovative Approaches to Connecting the Unconnected, 9th Workshop on Internet Economics (WIE 2018), cosponsored by the Massachusetts Institute of Technology and the Cooperative Association for Internet Data Analysis (CAIDA), University of California at San Diego, San Diego, California (December 13, 2018).

Recent U.S. Competition Law Cases on Internet Platforms, Alibaba, Hangzhou, China (November 2, 2018).

Opening Remarks, Seventh Annual Waseda Global Patent Law Conference, hosted by the Waseda Research Center for the Legal System of Intellectual Property, the Center for Technology, Innovation and Competition, University of Pennsylvania, and the Nagoya University Graduate School of Law, Waseda University School of Law, Tokyo, Japan (October 27, 2018).

Moderator, Panel on *Debating the Non-Delegation Doctrine*, Symposium on “The History, Theory, and Practice of Administrative Constitutionalism,” sponsored by the *University of Pennsylvania Law Review*, University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 20, 2018).

Privacy Issues in Online Retailing, Director Council’s Meeting, Baker Retailing Center, Wharton School, New York, New York (October 17, 2018).

Security Track: BGP Route Security, 74th North American Network Operators Group Meeting (NANOG 74), Vancouver, British Columbia (October 2, 2018).

Overcoming Legal Barriers to RPKI Adoption, 74th North American Network Operators Group Meeting (NANOG 74), Vancouver, British Columbia (October 1, 2018).

Should the New Titans be Tamed? Lessons from the US, EU and China, 6th Annual Antitrust Salon on “Where Is Antitrust Going?,” co-sponsored by George Washington University Law School and Concurrences, Washington, D.C. (September 24, 2018).

Panel on *Innovative Approaches to Connecting the Unconnected*, 46th Annual Telecommunications Policy Research Conference, American University Washington College of Law, Washington, D.C. (September 21–22, 2018).

Hipster Antitrust: Beyond Competition, Annual Conference on Competition, International Bar Association, Florence, Italy (September 14–15, 2018).

Conference on “Navigating the Risks and Opportunities of AI and Disruptive Technologies,” co-sponsored by the Berkeley Center for Law and Technology and Winston & Strawn, University of California at Berkeley, Berkeley, California (September 6, 2018).

Aspen Institute 2018 Conference on Communications Policy on “Next-Generation Digital Infrastructure: Towards a New Regime for Promoting Investment, Competition and Consumer Protection,” Aspen, Colorado (August 12–15, 2018).

Rethinking the Idea/Expression Dichotomy: Insights from Linguistics and Cognitive Science, Intellectual Property Scholars Conference, Boalt Hall School of Law, University of California at Berkeley, Berkeley, California (August 9–10, 2018).

Security and Privacy-Aware Cyber-Physical Systems: Legal Considerations, Principal Investigator Meeting of National Science Foundation-Intel Project on Cyber-Physical Systems, Stanford University, Stanford, California (July 12–13, 2018).

Panel on *Big Data and Antitrust*, “Due Process in Antitrust Enforcement: China, Europe, and the U.S.,” Penn Wharton China Center, Beijing, China (June 30, 2018).

Presentation of Results by the Research Team and Panel Discussion, “Due Process in Antitrust Enforcement: China, Europe, and the U.S.,” Penn Wharton China Center, Beijing, China (June 30, 2018).

Operating as a Global Internet for All Community, Special Meeting of the Internet for All Global Steering Committee, World Economic Forum, Cologny, Switzerland (June 28, 2018).

Plenary Session on *Public Law and Technology*, 2018 Annual Conference of the International Society of Public Law (ICON-S), Hong Kong University, Hong Kong (June 27, 2018).

The AT&T/Time Warner Decision: What it Means for Technology and Media Mergers, Technology Policy Institute, Washington, D.C. (June 19, 2018).

Commentator on *The Versificator: Algorithms & Authorship in the Adult Entertainment Industry*, Third Copyright Scholarship Roundtable, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (June 9, 2018).

Panel on *Facing the Future of U.S. Regulation: New Technologies & Old Rules*, Conference on “New Perspectives on U.S. Regulatory History: Past & Present of Public Utilities and Antitrust Law,” Harvard Business School, Cambridge, Massachusetts (June 5, 2018).

The Joint Enforcement of Competition and Data Privacy by the United States Federal Trade Commission and Its Implications for the EU, Forum for EU-US Legal-Economic Affairs, the Mentor Group, Brussels, Belgium (May 12–14, 2018).

Securing the Routing Infrastructure: Legal Barriers to RPKI Adoption, Sixth Annual Workshop on Computer Science and the Law, the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 10, 2018).

Tutorial on *Intellectual Property (with a Special Emphasis on Computer-Related Topics)*, Sixth Annual Workshop on Computer Science and the Law, the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 10, 2018).

Workshop on “Antitrust Due Process in the United States, European Union and Taiwan: A Comparative Perspective,” Chung Yuan Christian University, Zhongli, Taiwan (April 30, 2018).

A Preliminary Look at 5G: Separating the Hype from the Reality, Chung Yuan Christian University, Zhongli, Taiwan (April 30, 2018).

Roundtable Discussion, Conference on “Enforcing Competition Law—Balancing the Two Pillars of Efficiency and Justice,” cosponsored by the Seoul National University Center for Competition Law and the Center for Technology, Innovation and Competition, Seoul, Korea (April 26, 2018).

Balancing Efficiency and Justice – Institutional Perspectives, Conference on “Enforcing Competition Law—Balancing the Two Pillars of Efficiency and Justice,” cosponsored by the Seoul National University Center for Competition Law and the Center for Technology, Innovation and Competition, Seoul, Korea (April 26, 2018).

Balancing Efficiency and Justice – Procedural Perspectives, Conference on “Enforcing Competition Law—Balancing the Two Pillars of Efficiency and Justice,” cosponsored by the Seoul National University Center for Competition Law and the Center for Technology, Innovation and Competition, Seoul, Korea (April 26, 2018).

Revisiting the Justifications for Unlicensed Spectrum, “New Perspectives on Spectrum Policy,” cosponsored by the Warren Center on Network & Data Sciences and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 23, 2018).

The Overlooked Reconceptualization of Transformative Fair Use: The Incorporation of Patent-Style Principles into Copyright, “The Kinship between Copyright and Patent Law,” Inaugural Conference of the *Journal on Law and Innovation*, University of Pennsylvania Law School, Philadelphia, Pennsylvania, (April 19, 2018).

Moderator, Panel on *Roboadvising: Operational Forms and Strategies*, Conference on “Robo Advisors at the Regulatory Crossroads,” cosponsored by the Penn Wharton Public Policy Initiative, Warren Center for Network & Data Sciences, Georgetown Institute of International Economic Law, and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 13, 2018).

Panel on *Net Neutrality: Déjà Vu or a New Era?*, 66th Annual Spring Meeting of the American Bar Association Section of Antitrust Law, Washington, D.C. (April 12, 2018).

Advisers Meeting, Restatement of Information Privacy Principles, American Law Institute, Washington, D.C. (April 5, 2018).

Opening Remarks, Symposium on “Development of Intellectual Property Law in Asia,” *University of Pennsylvania Asian Law Review*, Philadelphia, Pennsylvania (March 30, 2018).

Final Thoughts and Looking Ahead: Perspectives from Three of FSF’s Academic All-Stars, Tenth Annual Telecom Policy Conference on Connecting All of America: Advancing the Gigabit and 5G Future, Free State Foundation, Washington, D.C. (March 27, 2018).

Kickoff Presentation on Market Definition and Market Power, Roundtable on “Competition Law Challenges in the Digital Economy,” Competition Policy International, New Delhi, India (March 20, 2018).

Roundtable on “Extraterritorial Distress in Competition Law,” Competition Policy International, New Delhi, India (March 20, 2018).

Concluding Remarks, Workshop on “The Future of Standard Essential Patents: Learning from *Microsoft v. Motorola’s* Legacy,” cosponsored by the Penn Program on Regulation, Leo Model Government Service & Public Affairs Initiative, the Wharton Competition and Policy Initiative, and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (March 16, 2018).

Changes in the Internet Topology, Center for Communication, Media and Information Technologies, Aalborg University Copenhagen, Denmark (March 9, 2018).

Net Neutrality: Recent Developments and Their Technological Implications, cosponsored by IDA – The Danish Society of Engineers and the Center for Communication, Media and Information Technologies, Aalborg University Copenhagen, Denmark (March 8, 2018).

What’s New in Net Neutrality?, Grupo de las Tecnologías de la Información y las Comunicaciones, Escuela Técnica Superior de Ingenieros de Telecomunicación, Universidad Politécnica de Madrid, Madrid, Spain (March 5, 2018).

Megacities: The Next Digital Frontier, GSMA Digital Policy Roundtable, Mobile World Congress, Barcelona, Spain (February 28, 2018).

Access & Gender Case Studies, Access Coalition of the EQUALS Research Group, Mobile World Congress, Barcelona, Spain (February 27, 2018).

Due Process, Transparency, and Rational Decisionmaking in Antitrust Enforcement: China, Europe, and the U.S., 2nd Annual Penn China Research Symposium, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 21, 2018).

The Internet as a Distributed Network: A Critical Analysis, Conference on “Regulating Computing and Code,” Silicon Flatirons Center, University of Colorado, Boulder, Colorado (February 12, 2018).

“A Conversation on Net Neutrality,” Berkman Klein Center for Internet and Society, Harvard University, Cambridge, Massachusetts (January 25, 2018).

US-China Tête-à-Tête on Competition and Regulation in Online Markets, cosponsored by Competition Policy International and the Global Antitrust Institute, George Mason University, Washington, D.C. (January 16, 2018).

Moderator, “Running on Empty: The Risk of Trademark Depletion and Possible Solutions,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 9, 2018).

Product Life Cycle Theory and the Maturation of the Internet, 8th Workshop on Internet Economics (WIE 2017), cosponsored by the Massachusetts Institute of Technology and the Cooperative Association for Internet Data Analysis (CAIDA), University of California at San Diego, San Diego, California (December 13, 2017).

Hot Topics in Wireless and Wireline Infrastructure Policy, 35th Annual Institute on Telecommunications Policy & Regulation, Practising Law Institute, Washington, D.C. (December 8, 2017).

James Wilson as Architect of the Presidency, Fourth Annual Salmon P. Chase Colloquium, Georgetown Center for the Constitution, Georgetown University Law Center, Washington, D.C. (December 1, 2017).

Commentator, Panel on *Networks 2*, “After the Digital Tornado: Networks, Algorithms, Humanity,” cosponsored by the Wharton School, Comcast, the William and Phyllis Mack Institute for Innovation Management, Center for Technology, Innovation and Competition, and the Warren Center on Network & Data Sciences University of Pennsylvania, Philadelphia, Pennsylvania (November 17, 2017).

Media Markets: Competition and Regulatory Issues, Annual D.C. Colloquium, Jevons Institute of Competition Law and Economics, University College of London, Georgetown Club, Washington, D.C. (November 14, 2017).

- Panels on *How “Platform Competition” Is Developing in the Mobile Device Space* and *Innovating with Data: Opportunities and Consideration*, Seminar on Platform Competition and Data Innovation, ICT Law & Economy Institute, Sogang University, Seoul, Korea (November 7, 2017).
- Presentation of Preliminary Results of the Project Comparing Competition Law in China, Europe, and the U.S., Penn Wharton China Center, Beijing, China (November 4, 2017).
- Opening Remarks, Sixth Annual Waseda Global Patent Law Conference, cosponsored by the Waseda Research Center for the Legal System of Intellectual Property, and the Center for Technology, Innovation and Competition, University of Pennsylvania, Waseda University School of Law, Tokyo, Japan (October 21, 2017).
- Workshop on Intellectual Property and Antitrust, Waseda University Faculty of Law, Tokyo, Japan (October 20, 2017).
- Working Group on *Evidence-Based Research* and Moderated Panel on Working Groups, IEEE Internet Inclusion: Advancing Solutions, sponsored by IEEE in collaboration with Guifi.net, Internet Society, ITU, Partnership for Public Access, People Centered Internet, USAID, the World Bank, and the World Economic Forum, Washington, D.C. (October 16, 2017).
- Commentator on *Hands on the Wheel: A Call for Greater Regulation of Semi-Autonomous Cars*, Inaugural Junior Faculty Forum on Law and STEM, cosponsored by Stanford Law School, Northwestern University Pritzker School of Law, and the University of Pennsylvania, Philadelphia, Pennsylvania (October 6, 2017).
- James Wilson as the Architect of the U.S. Presidency*, Public Law Workshop, University of Minnesota Law School, St. Paul, Minnesota (September 28, 2017).
- The Best Things in Life Are Free? The Economics of Advertising Support and the Implications for Privacy*, Tsinghua University School of Law, Beijing, China (September 22, 2017).
- Modularity, Open Source, and the Challenge of Fragmentation*, 7th Global Forum on Internet Governance, Tsinghua University School of Law, Beijing, China (September 15, 2017).
- Municipal Fiber in the U.S.: An Empirical Assessment*, 45th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 8, 2017).
- Panel on *Regulation of Internet Platforms*, 45th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 7, 2017).
- Antitrust and Platforms: Lessons from the Microsoft Cases and Beyond*, Conference on “Global Trends in Modern Competition Law & Policy,” 54th Comparative Law and Politics Symposium, University of Tokyo, Tokyo, Japan (August 4, 2017).

5G and Network Neutrality, Conference on “The Future of the Internet – Innovation, Integration and Sustainability,” 50th Freiburg Seminar on Network Economics, University of Freiburg, Freiburg, Germany (July 11, 2017).

Moderator, Session on “Next-Generation Spectrum Enforcement,” International Spectrum Workshop, co-presented by Foundation Paris-Dauphine, Université Paris- Dauphine, and Silicon Flatirons-University of Colorado, Paris, France (June 28, 2017).

Connecting Research to Policy: Broadband Deployment, Access, and Use Discussion, Pew Charitable Trusts, Washington, D.C. (June 23, 2017).

Network for Digital Development – Advancing a Global Action Agenda, co-hosted by the World Economic Forum and the IEEE, World Summit on the Information Society (WSIS) Forum 2017, International Telecommunications Union (ITU), Geneva, Switzerland (June 15, 2017).

Organizational Meeting, Research Group of the Global Partnership for Gender Equality in the Digital Age, United Nations University Institute on Computing and Society (UNU-CS), Geneva, Switzerland (June 15, 2017).

Modularity, Open Source, and the Challenge of Fragmentation, Innovation and Competition Roundtable, cosponsored by Trento LawTech and the Center for Technology, Innovation and Competition, L’Università degli Studi di Trento, Trento, Italy (June 5, 2017).

“Should Cities Build Fiber Networks: An Empirical Analysis,” cosponsored by the Penn Wharton Public Policy Institute and the Center for Technology, Innovation and Competition, Washington, D.C. (May 24, 2017).

Panelist, *The Future of the Internet Ecosystem in a Post-Internet Regulation World*, cosponsored by the Technology Policy Institute and the Center for Technology, Innovation and Competition, Washington, D.C. (May 23, 2017).

Open Source, Modular Platforms, and the Challenge of Fragmentation, Fifth Annual Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 9, 2017).

Tutorial on Government Surveillance, Fifth Annual Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 9, 2017).

Salon Discussion on *The Impact of U.S. Regulatory Policies on the Digital Economy*, Brookings Institution, Washington, D.C. (May 3, 2017).

“Internet Privacy: Technology and Policy Developments,” Center for Technology, Innovation and Competition, U.S. House of Representatives, Washington, D.C. (May 1, 2017).

- Working Group on *Evidence-Based Research* and Moderated Panel on Working Groups, IEEE Internet Inclusion: Advancing Solutions, sponsored by IEEE in collaboration with Guifi.net, Internet Society, ITU, Partnership for Public Access, People Centered Internet, USAID, the World Bank, and the World Economic Forum, Washington, D.C. (April 24–25, 2017).
- Discussion Leader, Breakout Group on *Multistakeholder Governance Models for a National Digital Agenda*, “Future of the Digital Economy & Society: 2nd Working Meeting of Internet for All in Argentina,” sponsored by the World Economic Forum, co-hosted with the Government of Argentina, the Global Connect Initiative, and the Inter-American Development Bank, Buenos Aires, Argentina (April 5, 2017).
- Commentator on *Rise of the API Copyright Dead?: An Updated Epitaph for Copyright Protection of Network and Functional Features of Computer Software*, Second Copyright Scholarship Roundtable, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (March 25, 2017).
- Workshop on “Emerging Technologies and Global Politics,” Perry World House, University of Pennsylvania, Philadelphia, Pennsylvania (March 23, 2017).
- Dimensioning the Proper Domain of Common Carriage: Exploring When Use It Makes Sense and When It Does Not*, Roundtable on “Revisiting the Public Utility,” Vanderbilt Law School, Nashville, Tennessee (February 24, 2017).
- Future of Digital Economy & Society: Internet for All-Global Working Groups Meeting, World Economic Forum, Washington, D.C. (February 22, 2017).
- Panel on *Local Strategies*, Conference on “The Last Three Billion – Initiatives to Bring the Whole World Online,” New America Foundation, Washington, D.C. (February 9, 2017).
- Metrics for Local Access Networks*, GAIA Community Networks: Sustainability & Regulation Workshop, Cambridge University, Cambridge, England (January 26, 2017).
- Procedural Fairness in U.S. Antitrust Enforcement*, Inaugural Conference on Antitrust Enforcement, Center for Transnational Law and Business, Gould School of Law, University of Southern California, Los Angeles, California (January 14, 2017).
- Opening Remarks, Fifth Annual Waseda Global Patent Law Conference, cosponsored by the Waseda Research Center for the Legal System of Intellectual Property, and the Center for Technology, Innovation and Competition, University of Pennsylvania, Waseda University School of Law, Tokyo, Japan (December 3, 2016).
- Competition Law in the Digital Age: The Emerging Focus on Platforms*, Institute of Comparative Law, Waseda University Faculty of Law, Tokyo, Japan (December 2, 2016).

Open Source, Modular Platforms, and the Challenge of Fragmentation, Global Digital Foundation, Brussels, Belgium (November 23, 2016).

Open Source, Modular Platforms, and the Challenge of Fragmentation, cosponsored by the Progressive Policy Institute and the Lisbon Council, Brussels, Belgium (November 22, 2016).

Commentator, *(How) Does the Enforcement of Self-Regulation on Corporate Governance Work? Evidence from Brazil and Censorship in Indian Cinema: A Case for Reform*, 2016 Penn/Stanford International Junior Faculty Forum, University of Pennsylvania Law School, Philadelphia, Pennsylvania (November 11, 2016).

Discussant, “Bridges II: The Law-STEM Alliance & Next Generation Innovation,” Northwestern University Pritzker School of Law, Chicago, Illinois (October 29, 2016).

Panel on *The FCC’s Privacy NPRM*, Privacy+Security Forum, George Washington University, Washington, D.C. (October 25, 2016).

Commentary on *U.S. and Chinese Approaches to Intellectual Property*, Conference on “The U.S., China, and International Law,” Perry World House, University of Pennsylvania, Philadelphia, Pennsylvania (October 7, 2016).

Presentation on *Empirical Research into Innovation Approaches to Connecting the Unconnected*, Workshop on “Internet Inclusion: Global Connect Stakeholders Advancing Solutions,” sponsored by IEEE in collaboration with the Internet Society, World Bank, and People Centered Internet, Washington, D.C. (October 6, 2016).

Innovation and Regulation in the U.S., 10th Anniversary Conference on “Innovation and Regulation,” Center for Law and Public Utilities, Seoul National University, Seoul, Korea (September 22–23, 2016).

Copyright and Personhood Revisited: Self-Actualization and the Need to Play, Wake Forest University, Winston-Salem, North Carolina (September 15, 2016).

High Level Roundtable on Internet for All, World Economic Forum, Cologny, Switzerland (August 30–31, 2016).

Network Neutrality and Innovation, Ross Parsons Law and Business Seminar Program, University of Sydney, Sydney, Australia (August 4, 2016).

Self-Actualization and the Need to Create as a Limit on Copyright, Symposium on “Comparative Dimensions of Limitations and Exceptions in Copyright Law,” cosponsored by the Centre of Law and Business of the National University of Singapore Faculty of Law, Center for Technology, Innovation and Competition of the University of Pennsylvania, and the University of Hong Kong, National University Singapore, Singapore (July 21, 2016).

Dialogue on *Shaping the Future of the Digital Economy in South Asia*, cosponsored by the World Economic Forum and the Observer Research Foundation, New Delhi, India (July 19, 2016).

Connecting the Unconnected, LIRNEasia, Colombo, Sri Lanka (July 18, 2016).

Telecommunications Policy Over the Past Forty Years: A U.S. Perspective, Plenary Session on “Retrospective and Prospective of Telecommunications Policy Research,” International Telecommunications Society Biennial Conference, Taipei, Taiwan (June 27, 2016).

Panel on *Investment in Telecommunications for Closing the Digital Divide*, 4th Latin American Congress of Telecommunications, Cancun, Mexico (June 21, 2016).

Panel on *Platform Business Models*, Roundtable on “Platforms and Mobile Competition,” cosponsored by the London School of Economics and Political Science and the University of Leeds, London, United Kingdom (June 20, 2016).

Developing a Modern Approach to Antitrust Legislation: How Emerging Economies Are (and Should Be) Managing Dominant Tech Firms and the Market, Heidelberg Antitrust Symposium on “Antitrust Law in Information Technology Markets,” cosponsored by the International Law Institute, Heidelberg University Law Faculty, and the Georgetown Law Graduate and Transnational Programs Office, Heidelberg Center for American Studies, Heidelberg, Germany (June 17, 2016).

Panels on From Website To Apps: Who Is Competing with Whom Online? and Building Successful Platforms – Balancing Freedom and Governance, International Seminar on Platforms & Mobile Competition, ICT Law & Economy Institute and Social Science Korea (SSK) Research Group, Sogang University, Seoul, Korea (June 9, 2016).

Commentator on *Overview of Current Debates About Antitrust and Innovation*, Seoul National University, Seoul, Korea (June 8, 2016).

Panel on *The Nature of Competition in the Digital Economy*, Seminar on “The Evolving Digital Economy and Approaches to Competition issues,” Center for Global Communications (GLOCOM), International University of Japan, Tokyo, Japan (June 6, 2016).

Empirical Analysis of the Broadband Coverage in Europe: Infrastructure Sharing vs. Facilities-Based Competition, NCTA INTX Academic Workshop, Boston, Massachusetts (May 16, 2016).

Seminar on *What Is the Role for Antitrust in the ICT Licensing Disputes?*, Competition Policy International, Singapore (April 28, 2016).

Antitrust in the Digital Economy, Competition Law Centre, University of International Business and Economics, Beijing, China (April 26, 2016).

Antitrust in the Digital Economy, Center for Intellectual Property Law, Tsinghua University School of Law, Beijing, China (April 25, 2016).

Antitrust in the Digital Economy, Center on Global Communications, International University of Japan, Tokyo, Japan (April 24, 2016).

The State of Broadband in ASEAN: A Snapshot Appraisal, Joint LKY School-Qualcomm Research Conference on “Socio-Economic Impacts of Mobile Communications: Implications for ASEAN,” Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore (April 22, 2016).

Panel on *Regional Status, Technologies and the Unconnected*, Workshop on “Global Connect Stakeholders: Advancing Solutions,” cosponsored by the Institute of Electrical and Electronics Engineers (IEEE) and the World Bank, Washington, D.C. (April 13, 2016).

Panel on *Congestion and Interconnection*, Conference on Global Internet Interconnection, Center for Information Technology Policy, Princeton University, Princeton, New Jersey (March 11, 2016).

The Best Things in Life Are Free? The Economics of Advertising Support and the Implications for Privacy, Annual Conference of the Leibniz Science Campus, MaCCI Mannheim Centre for Competition and Innovation, Centre for European Economic Research (ZEW), Mannheim, Germany (March 3, 2016).

When Fragmentation Is Beneficial, “Research Methodologies in Internet Governance,” Research Advisory Network Workshop, cosponsored by the MacArthur Foundation, Global Commission on Internet Governance, and the Center for Democracy and Technology, Washington, D.C. (March 2, 2016).

Focus Group on Policy Recommendations for Thailand, Ideas Lab, Centre for European Policy Studies, Brussels, Belgium (February 25, 2016).

Avoiding the Pitfalls of Net Uniformity: Implementing Nondiscrimination and Interconnection, Conference on “The Future of the Internet Ecosystem in a Post-Open Internet Order World,” cosponsored by the Technology Policy Institute and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Washington, D.C. (January 8, 2016).

Panel on *FTC/FCC Privacy and Security*, Media Institute, Washington, D.C. (November 17, 2015).

Rethinking the Idea/Expression Dichotomy: Insights from Linguistics and Cognitive Science, Inaugural Copyright Scholarship Roundtable, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (November 7, 2015).

- Panel on *Academic Perspectives on Cybersecurity*, 8th Annual Space, Cyber, and Telecommunications Washington DC Conference, Space, Cyber, and Telecommunications Law Program, University of Nebraska College of Law, Washington, D.C. (October 30, 2015).
- Panel on *Regulatory Issues in Competition Law*, Conference on “Comparative Approaches to Regulation in India and China,” cosponsored by the Center for Asian Law, the Center for Technology, Innovation and Competition, and the Penn China Engagement Fund, University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 24, 2015).
- Panel on *Communications Privacy and Security and FCC Enforcement*, Privacy + Security Forum, George Washington University, Washington, D.C. (October 22, 2015).
- Panel on *Cloud TV: The Next Generation of Media*, Conference on “The State of Telecom – 2015: Building the Next Generation of Entertainment: Online Platforms and Cloud Content,” Columbia Institute on Tele-Information, New York, New York (October 19, 2015).
- Rethinking Presidential Signing Statements*, Conference on “The Bounds of Executive Discretion in the Regulatory State,” cosponsored by the *University of Pennsylvania Law Review* and the Penn Program on Regulation, University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 17, 2015).
- Panel on *Key Policy Questions*, Conference on “The Future of Video Competition and Regulation,” Center for Innovation Policy, Duke Law School, Washington, D.C. (October 9, 2015).
- Panel on *Net Neutrality – Consequences of the FCC’s February 2015 Announcements; Impact on Content Delivery Ecosystem*, International Institute of Communications 46th Annual Conference on “Trends in Converged Communications: Fostering Innovation, Growth and Societal Benefit,” Washington, D.C. (October 7, 2015).
- Property Rights in the Digital Age*, 2015 Brigham-Kanner Property Rights Conference, William & Mary Law School, Williamsburg, Virginia (October 2, 2015).
- Security and Privacy of Cyber-Physical Systems: Legal and Social Considerations*, Center for Research on Computation for Society (CRCS) Symposium, John A. Paulson School of Engineering and Applied Sciences, Harvard University, Cambridge, Massachusetts (September 25, 2015).
- Modularity Theory, Wireless Platforms, and Competition Policy*, Foreign Authority Forum, Seoul National University School of Law, Seoul, Korea (September 17, 2015).
- The Dynamic Internet*, Tsinghua University School of Law, Beijing, China (September 14, 2015).

Panel on *Internet Industry and the Application of Competition Rules*, 2015 IP and Antitrust Forum, Chinese Intellectual Property Law Association, Beijing, China (September 13, 2015).

Modularity Theory and Internet Policy: Towards a Dynamic Theory of Network Architecture and Regulation, Law and Economics Seminar, Harvard Law School, Cambridge, Massachusetts (September 8, 2015).

Building on Past Success: Towards Global Leadership in Cybersecurity Research, Penn Engineering 2020: Workshop on Security and Sustainability, School of Engineering and Applied Science, University of Pennsylvania, Philadelphia, Pennsylvania (August 6, 2016).

Commentator, *Access and Development: The History of “Development” and WIPO*, 2015 Annual Workshop of the International Society for the History and Theory of Intellectual Property, University of Pennsylvania Law School, Philadelphia, Pennsylvania (July 22, 2015).

Commentator, Conference on “Openness and Intellectual Property,” cosponsored by the Cinema Studies Program and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (July 22, 2015).

Discussant, *Innovation Breakthroughs in Europe’s Digital Single Market: What’s Next?*, Istituto Affari Internazionali, Rome, Italy (June 25, 2015).

Innovation, Regulation, and the EU’s Digital Single Market Strategy, Technology Policy Institute, National Press Club, Washington, D.C. (June 11, 2015).

Panel on *Are Net Neutrality Rules Necessary?: Lessons and Case Studies from Around the World*, Conference on “The Making of Net Neutrality Rules,” FGV Law School, Rio de Janeiro, Brazil (June 8, 2015).

Cloud Computing, Contractibility, and Network Architecture, Privacy Law Scholars Conference, University of California at Berkeley, Berkeley, California (June 4, 2015).

Panel on *Competition in Telecom: Net Neutrality and Innovation*, Canadian Telecom Summit, Toronto, Canada (June 1, 2015).

Modularity Theory, Wireless Platforms, and Competition Policy, Philadelphia Area Cyberlaw Colloquium, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 29–30, 2015).

Network Neutrality in the US and Europe: A Study in Contrasting Approaches, American Academy in Berlin, Berlin, Germany (May 21, 2015).

Discussant on Antitrust and Economic Regulation, 25th Annual Meeting of the American Law and Economics Association, Columbia University, New York, New York (May 15, 2015).

Panel on *Examining the Future of the Open and Universal Internet*, Conference on Internet Governance and Cyber-Security, Columbia School of International and Public Affairs, New York, New York (May 14, 2015).

Property Theory and the Balance Between Licensed and Unlicensed Spectrum, Third Annual Workshop on Computer Science and the law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 12–13, 2015).

Tutorial on the Internet, Third Annual Workshop on Computer Science and the law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 12–13, 2015).

Modularity as a Basis for a Dynamic Theory of Internet Regulation, Cable Academic Workshop, cosponsored by the Searle Center on Law, Regulation, and Economic Growth, Northwestern University School of Law, and the Silicon Flatirons Center, University of Colorado, Chicago, Illinois (May 5, 2015).

Moderator, Panel on *The Law, Philosophy, and Ethics of End User Responsibility for Privacy*, Conference on “Taking Responsibility for One’s Own Data Privacy and Security—Is it Possible, and How?,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 24, 2015).

Panel on *Securing Net Neutrality: Antitrust, Rules, Both or Neither?*, 63rd Annual Spring Meeting of the American Bar Association Section of Antitrust Law, Washington, D.C. (April 15, 2015).

EU and the US: A Digital Love Story?, Wilfried Martens Centre for European Studies, Brussels, Belgium (March 5, 2015).

The Economics of Mobile Network Traffic Management, Net Neutrality Thematic Workshop, GSMA Ministerial Programme, Mobile World Congress, Barcelona, Spain (March 4, 2015).

Interoperability and Interconnection in the Network Industries, Conference on “The Digital Broadband Migration: First Principles for a 21st Century Innovation Policy,” Silicon Flatirons Center, University of Colorado, Boulder, Colorado (February 10, 2015).

Common Carriage and the Open Internet, 63rd Meeting of the North American Network Operators Group (NANOG 63), San Antonio, Texas (February 2, 2015).

Policy Perspectives from Technology Leaders, Council on Foreign Relations, Washington, D.C. (January 28, 2015).

Panel on *Global Digital Free Speech*, The Media Institute, Washington, D.C. (January 21, 2015).

Panel on *The Telecommunications Act in an All-IP World*, Consumer Electronics Show, Las Vegas, Nevada (January 7, 2015).

Panel on *Net Neutrality: Where Does the FCC Go from Here?*, 2015 Annual Meeting of the Association of American Law Schools, Washington, D.C. (January 5, 2015).

Law: From Common Carriage to Expert Regulator, Panel on “Historical Background: Lessons, Literature, Landmarks,” 5th Workshop on Internet Economics (WIE 2014) on “Economic Health of the Internet Ecosystem,” cosponsored by the Massachusetts Institute of Technology and the Cooperative Association for Internet Data Analysis (CAIDA), University of California at San Diego, San Diego, California (December 11, 2014).

Interconnection and the Multiple Roles Paid by Pricing, Panel on “Norms for Negotiating,” 5th Workshop on Internet Economics (WIE 2014) on “Economic Health of the Internet Ecosystem,” cosponsored by the Massachusetts Institute of Technology and the Cooperative Association for Internet Data Analysis (CAIDA), University of California at San Diego, San Diego, California (December 10, 2014).

Closing Plenary Session on *The Future of Research and Policy in the Electronic Communications Sector*, 2014 Biennial Conference of the International Telecommunications Society, Rio de Janeiro, Brazil (December 3, 2014).

Keynote Address on *The Evolving Internet Architecture*, 2014 Biennial Conference of the International Telecommunications Society, Rio de Janeiro, Brazil (December 1, 2014).

Legal Mechanisms for Governing the Transition of Key Internet Domain Name Functions to the Global Multistakeholder Community, Global Commission on Internet Governance Ottawa Meeting, co-organized by Chatham House and the Centre for International Governance Innovation, Ottawa, Canada (November 25, 2014).

Panel on *Network Neutrality*, cosponsored by the Yale Information Society Project and the Center for Technology, Innovation and Competition, Yale Law School, New Haven, Connecticut (November 18, 2014).

Panel on *To Regulate or Not to Regulate: Should Net Neutrality Be Required by Law?*, 34th Edward V. Sparer Symposium on “Law 2.0: Progress and Challenges for Justice in the Digital Age,” Toll Public Interest Center, University of Pennsylvania Law School, Philadelphia, Pennsylvania (November 14, 2014).

Panel on *Competition in the Communications Space—Feast or Famine?*, 2014 Annual National Lawyers Convention, Federalist Society, Washington, D.C. (November 13, 2014).

Advisers Meeting, Restatement of Information Privacy Principles, American Law Institute, San Francisco, California (November 6, 2014).

Network Neutrality and Two-Sided Markets, Annual D.C. Colloquium, Jevons Institute of Competition Law and Economics, University College of London, Cosmos Club, Washington, D.C. (November 4, 2014).

“U.S.-European Comparison,” Conference on *Broadband Deployment: What Do the Data Say?*, cosponsored by the Mannheim Centre for Competition and Innovation and the Center for Technology, Innovation and Competition, Zentrum für Europäische Wirtschaftsforschung (ZEW), Mannheim, Germany (October 22, 2014).

“US vs. European Broadband Deployment,” cosponsored by the Centre for European Policy Studies and the Center for Technology, Innovation and Competition, Brussels, Belgium (October 21, 2014).

Moderator, Panel Discussion, “The Open Internet: Should Wireless Technologies Be Regulated Differently?,” cosponsored by the Penn Wharton Public Policy Initiative and the Center for Technology, Innovation and Competition, Willard Hotel, Washington, D.C. (October 15, 2014).

Moderator, Panel on *Title II – Telecommunications Services*, “The Open Internet?: Classifying Communication Services,” cosponsored by the Penn Wharton Public Policy Initiative and the Center for Technology, Innovation and Competition, National Press Club, Washington, D.C. (October 1, 2014).

Modularity Theory and Internet Policy, Fall Faculty Symposium, Warren Center for Network & Data Sciences, University of Pennsylvania, Philadelphia, Pennsylvania (September 26, 2014).

Protocol Layering and Internet Policy, 42nd Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 14, 2014).

U.S. vs. European Broadband Deployment: What Do the Data Say?, Telecommunications Policy Research Conference Capitol Hill Briefing, U.S. House of Representatives, Washington, D.C. (September 11, 2014).

Opening Keynote Address, *Past Performance Does Not Guarantee Future Results: Towards a Dynamic Theory of Telecom Regulation*, Conference on “Regulating the Evolving Internet Ecosystem,” cosponsored by the Federal Communications Commission, American Enterprise Institute’s Center for Internet, Communications, and Technology Policy, and the University of Nebraska College of Law, Washington, D.C. (September 10, 2014).

Public Good Economics and Standard Essential Patents, Intellectual Property Scholars Conference, Boalt Hall School of Law, University of California at Berkeley, Berkeley, California (August 8, 2014).

U.S. vs. European Broadband Deployment: What Do the Data Say?, Comcast State Government Affairs 2014 Summer Meeting, Chicago, Illinois (July 28, 2014).

Recent Developments in Network Neutrality, Center for Global Communications (GLOCOM), International University of Japan, Tokyo, Japan (June 30, 2014).

Modularity Theory and Internet Policy, Inaugural Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (June 24, 2013).

Copyright and Personhood Revisited: The Role of Play, Conference on “Value Pluralism and Intellectual Property Law,” cosponsored by the University of Hong Kong Faculty of Law and the Center for Technology, Innovation and Competition, University of Hong Kong, Hong Kong (June 10–11, 2014).

U.S. vs. European Broadband Deployment: What Do the Data Say?, Workshop on “The Future of Broadband Regulation,” cosponsored by the Federal Communications Commission and the Institute for Information Policy at Penn State University, Washington, D.C. (May 29, 2014).

Legal Mechanisms for Governing the Transition of Key Internet Domain Name Functions to the Global Multistakeholder Community, Global Commission on Internet Governance Stockholm Meeting, co-organized by Chatham House and the Centre for International Governance Innovation, Stockholm, Sweden (May 27, 2014).

Moderator, Panel on “Disruptive Technologies in the Digital Marketplace—Google Books, Aereo, BitTorrent, and the Future of Online Copyright” (featuring Judges Denny Chin and Michael Baylson), AIPLA Spring Meeting, Philadelphia, Pennsylvania (May 15, 2014).

Tutorial on the Internet, Second Annual Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 13–14, 2014).

Property Theory and the Balance Between Licensed and Unlicensed Spectrum, cosponsored by the Private Law Consortium and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 11–12, 2014).

Platform Agnosticism in Video Distribution, online symposium on “The Next Generation of Video” sponsored by the Columbia Institute for Tele-Information, Columbia University (May 6, 2014).

The Open Internet in the Aftermath of Verizon v. FCC: What Comes Next?, Center for Information and Technology Policy, Princeton University, Princeton, New Jersey (April 24, 2014).

Panel Discussion on Mark Lemley's *IP Without Scarcity*, Program in Law & Market Behavior, Notre Dame Law School, Notre Dame, Indiana (April 11, 2014).

Panel on "A New FCC and A New Communications Act: Perspectives from Academia, the Hill, and the FCC," 6th Annual Winter Telecom Policy Conference, Free State Foundation, Washington, D.C. (March 18, 2014).

Cyberwar: What, Why, How, and Who, Philadelphia Area Cyberlaw Colloquium, Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania (February 28, 2014).

The Unitary Executive at the Constitutional Convention: James Wilson and the Creation of the American Presidency, 5th Annual Hugh and Hazel Darling Foundation Originalism Works-in-Progress Conference, University of San Diego Law School, San Diego, California (February 21, 2014).

Online Seminar on *Verizon v. FCC*, Telecom Italia (February 12, 2014).

Panel on *The Open Internet: Where Do We Go from Here?*, Progressive Policy Institute, Washington, D.C. (January 29, 2014).

Panel on *Will the Net Neutrality Order Survive Appeal? Should It?*, Program on "Broadband and Cable Television Law 2014," Practising Law Institute, New York, New York (January 27, 2014).

Keynote Address, *The Dynamic Internet*, Pacific Telecommunications Council 2014 Conference on "New World, New Strategies," Honolulu, Hawaii (January 21, 2014).

Panel on *D.C. Circuit Decision on FCC Open Internet Rules: Win or Loss?*, Congressional Internet Caucus Advisory Committee, Washington, D.C. (January 17, 2014).

Panel on *The End of Net Neutrality?: The DC Circuit Court of Appeal's Decision, and the Proposed Merger Time Warner Cable-Charter*, online symposium sponsored by the Columbia Institute for Tele-Information, Columbia University (January 15, 2014).

Comparing U.S. and European Broadband Coverage, 4th Workshop on Internet Economics (WIE 2013) on "Economic Health of the Internet Ecosystem," cosponsored by the Massachusetts Institute of Technology and the Cooperative Association for Internet Data Analysis (CAIDA), University of California at San Diego, San Diego, California (December 13, 2013).

The Impact of Advertising: Lessons from Broadcasting, 4th Workshop on Internet Economics (WIE 2013) on "Economic Health of the Internet Ecosystem," cosponsored by the Massachusetts Institute of Technology and the Cooperative Association for Internet Data Analysis (CAIDA), University of California at San Diego, San Diego, California (December 12, 2013).

Standard Essential Patents, FRAND Licensing, and Public Good Economics, “Patent Reform: Theoretical Propositions and Factual Foundations,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (December 6, 2013).

The Dynamic Internet: How Technology, Users, and Businesses Are Transforming the Network, Panel on “Leaders of the New Telecosm,” New Telecosm Summit: Transforming Telecom to All-IP Networks and HD Voice, New York, New York (invited December 3, 2013).

Conference on “Does Platform Competition Render Common Carriage Irrelevant in an IP World?,” Progressive Policy Institute, Washington, D.C. (November 20, 2013).

Cyberwar: Invisible (and Visible) Harms, Conference on “Invisible Harms: Intellectual Property, Privacy, and Security in a Global Network,” Cosponsored by University of Pennsylvania Global Initiative, Wharton School, Cinema Studies Program, and School for Engineering and Applied Science, Philadelphia, Pennsylvania (November 14, 2013).

Panel on *Cyber War, Cyber Weapons and Internet Governance*, 8th Annual Symposium of the Global Internet Governance Academic Network, Nusa Dua, Indonesia (October 21, 2013).

Panel on *Preparing Future Professionals for this Brave New World*, Conference on “Scholarship After Snowden: Teaching and Research in a World of Pervasive Digital Surveillance,” cosponsored by the University of Pennsylvania Law School and the Center for Global Communication Studies, Philadelphia, Pennsylvania (October 17, 2013).

Panel on *Anti-Social Media? Existence and Exercise of Market Power in Social Networking Platforms*, Antitrust and Intellectual Property Conference, American Bar Association Section of Antitrust Law, Stanford Law School, Stanford, California (October 10, 2013).

Panel on *Is Common Carriage Still Relevant?*, 41st Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (invited September 27, 2013).

Advisers Meeting, Third Restatement of Information Privacy Principles, American Law Institute, Washington, D.C. (September 19, 2013).

Members Consultative Group Meeting, Third Restatement of Information Privacy Principles, American Law Institute, Washington, D.C. (September 18, 2013).

Panel on *Regulation, Broadband Growth, and the Economy*, Conference on “Broadband, Economic Growth, and the Implications for Spectrum Policy,” American Enterprise Institute, Washington, D.C. (September 17, 2013).

Standard Essential Patents and Public Good Economics, Workshop on FRAND, Levin College of Law, University of Florida, Gainesville, Florida (September 11, 2013).

Invited Presentation, Taking Stock: An AEI Invitation-Only Dinner on the Future of Internet Regulation, American Enterprise Institute, Washington, D.C. (September 10, 2013).

Panel on *Competition, Regulation, and the Evolution of Internet Business Models*, Aspen Forum on “Creative Destruction and Growth: Policy Choices,” Technology Policy Institute, Aspen, Colorado (August 19, 2013).

Modularity Theory and Internet Policy, Intellectual Property Scholars Conference, Benjamin N. Cardozo School of Law, Yeshiva University, New York, New York (August 9, 2013).

Modularity Theory and Internet Policy, Inaugural Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (June 24, 2013).

Tutorial on the Network Engineering Principles Underlying the Internet Protocols, Inaugural Workshop on Computer Science and the Law, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (June 24, 2013).

Decentralization and Its Discontents, Conference on “The Future of Internet Governance After Dubai: Are We Heading to a Federated Internet?,” Columbia Institute for Tele-Information, Columbia University, New York, New York (June 20, 2013).

Contractibility and Internet Privacy, Public Policy Conference on “The Law and Economics of Privacy and Data Security,” Institute for Law and Economics, George Mason University School of Law, Arlington, Virginia (June 19, 2013).

Is There a Role for Common Carriage in an Internet-Based World?, 2013 National Conference of the Intellectual Property & Information Law, Institute for Intellectual Property & Information Law, University of Houston Law Center, Santa Fe, New Mexico (June 8, 2013).

How the Internet Promotes (and Hinders) Entrepreneurship, Workshop on “Theory of Broadband: Regulation, Networks and Applications,” Columbia Institute for Tele-Information, Columbia University, New York, New York (May 31, 2013).

Keynote Address, *Modularity Theory and Internet Policy*, Workshop on “Competition Policy and Regulation of Media and Communications,” Tilburg Law and Economics Center, Tilburg University, Tilburg, the Netherlands (May 24, 2013).

Wireless Network Neutrality: Technological Challenges and Policy Implications, Conference on Telecommunications Policy, University of Haifa, Haifa, Israel (May 22, 2013).

How the Internet Promotes (and Hinders) Entrepreneurship, Conference on “Understanding Entrepreneurship: On IP, Culture and Innovation Environments,” Bar-Ilan University, Ramat-Gan, Israel (May 21, 2013).

- Moderator, Panel on *The Intersection of Patent Law and Entrepreneurship*, Conference on “Understanding Entrepreneurship: On IP, Culture and Innovation Environments,” Bar-Ilan University, Ramat-Gan, Israel (May 20, 2013).
- Moderator, Panel on *The State of Competition in Search and Social Media*, 3rd Annual Conference on Competition, Search, and Social Media, George Mason Law & Economics Center, George Mason University School of Law, Arlington, Virginia (May 15, 2013).
- Beyond Coase: Property Theory and Emerging Technologies*, Invited Faculty Workshop, Universität Mannheim, Mannheim, Germany (April 23, 2013).
- Panel on *Nothing But 'Net : The Uncertain Future of Internet Regulation in the Digital Age*, Conference on “Lessons from Broadcast Regulation for the Twenty-First Century,” cosponsored by the American Bar Association Section of Administrative Law and Regulatory Practice, *Administrative Law Review*, and the Communications & Media Law Society, Washington College of Law, American University, Washington, D.C. (April 16, 2013).
- Keynote Address, *Regulatory Economics in New Telecom Markets: US and European Perspectives*, “Network Economy Forum,” London School of Economics, London, England (March 25, 2013).
- Keynote Address, *Possible Paradigm Shifts in Broadband Policy*, Conference on “Competition and Innovation in the Era of Broadband,” sponsored by *I/S: A Journal of Law and Policy for the Information Society*, Moritz College of Law, Ohio State University, Columbus, Ohio (March 22, 2013).
- Featured Speaker on Introductory Panel (along with Robert Kahn), Forum on “Rethinking the Internet: The Way Forward,” cosponsored by Telecom Italia and *The Financial Times*, Telecom Italia Future Centre, Venice, Italy (March 21, 2013).
- Discussion on *Broadband in the U.S.: Myths and Realities*, Technology Policy Institute, Washington, D.C. (March 14, 2013).
- The Unitary Executive at the Constitutional Convention: James Wilson and the Creation of the American Presidency*, 2013 Discussion Group on Constitutionalism, University of Maryland Law School, College Park, Maryland (February 22–23, 2013).
- Panel on *Will the Net Neutrality Order Survive Appeal?*, Program on “Broadband and Cable Television Law 2013,” Practising Law Institute, New York, New York (January 28, 2013).
- “Internet Policy Going Forward: Does One Size Still Fit All?,” Book Luncheon on *Communications Law and Policy in the Digital Age: The Next Five Years*, Free State Foundation, Washington, D.C. (January 23, 2013).

Panel on *Should Congress Rewrite the Telecomm Act?*, 9th Annual State of the Net Conference, Congressional Internet Caucus Advisory Committee, Washington, D.C. (January 22, 2013).

“Still a Series of Tubes? The Dynamic Internet and Competition Policy,” American Enterprise Institute, Washington, D.C. (January 16, 2013).

Contractibility and Internet Privacy, Research Roundtable on “The Law and Economics of Privacy and Data Security,” George Mason University School of Law, Arlington, Virginia (December 12–13, 2012).

The Dynamic Internet: Policy Implications of Broadband Business Model Evolution, AdvancedComm Summit 2012, Advanced Communication Law & Policy Institute, New York Law School, Philadelphia, Pennsylvania (December 11, 2012).

The Network Neutrality Debate in the US and in the EU: Parallels and Differences, MaCCI Law and Economics Conference on “The Future of the Internet, Network Neutrality, Search Neutrality, and Vertical Foreclosure,” Mannheim Centre for Competition and Innovation, Zentrum für Europäische Wirtschaftsforschung (ZEW), Mannheim, Germany (October 25–26, 2012).

Internet Policy and the Limits of Layering, Conference on “The Evolving Internet,” cosponsored by the *University of Pennsylvania Law Review* and the Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 20, 2012).

Legal Dimensions of “Remarks on Cyberwarfare,” Roundtable on “Cyberwar and the Rule of Law,” Center for Ethics and the Rule of Law, University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 15, 2012).

Conference on “Information Privacy Law,” American Law Institute, San Francisco, California (September 28, 2012).

Modularity Theory and Internet Policy, 40th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 23, 2012).

The Government Takeover of the U.S. Telecommunications System During World War I, 40th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 22, 2012).

The Dynamic Internet, Big Ideas @ Penn, University of Pennsylvania, Philadelphia, Pennsylvania. (September 19, 2012).

Roundtable Discussion on Telecommunications Reform, Brookings Institution, Washington, D.C. (September 10, 2012).

Panel on *Copyright and the Internet*, Conference on Patent and Copyright Law in India; Emerging Issues, National Law School of India University, Bangalore, India (July 17, 2012).

The Dynamic Internet, Conference on “The Future of Internet Economics,” Technology Policy Institute, Washington, D.C. (June 15, 2012).

Plenary Panel on *Challenges of Updating International Regulatory Infrastructure*, AALS Mid-Year Meeting on “When Technology Disrupts Law: How Do IP, Internet, and Bio Law Adapt?,” University of California at Berkeley, Berkeley, California (June 11, 2012).

Law and Policy of the Cloud, Conference on “Mobile Personal Clouds with Silver Linings,” Columbia Institute for Tele-Information, Columbia Business School, New York, New York (June 8, 2012).

Is There a Role for Common Carriage in an All-IP Environment?, Conference on “The End of the Phone System,” Mack Center for Technological Innovation, Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania (May 19, 2012).

Panel on *Search, Duties to Deal, and Essential Facilities*, 2nd Annual Conference on Competition, Search, and Social Media, George Mason Law & Economics Center, George Mason University School of Law, Arlington, Virginia (May 16, 2012).

The Economics of Copyright, IPR University Center, Helsinki, Finland (April 4, 2012).

Tribute Panel, Festschrift in Honor of Martin H. Redish, Northwestern University School of Law, Chicago, Illinois (March 30, 2012).

The Internet World: Will It Remain Free from Public Utility Regulation?, 4th Annual Winter Telecom Policy Conference, Free State Foundation, Washington, D.C. (March 20, 2012).

Moderator, Panel on *Cloud Computing and Industry Structure*, Conference on “Cloud Computing: Economic and Regulatory Implications,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 24, 2012).

Cloud Computing and Regulation, Conference on “Cloud Computing: Economic and Regulatory Implications,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 24, 2012).

Social Media: A Case Study in the Competitive Impact of Network Economic Effects, 15th Annual Symposium on Antitrust Law: Antitrust in High Tech Industries, cosponsored by the *George Mason Law Review* and the George Mason Law and Economics Center, Arlington, Virginia (January 26, 2012).

Trans-Atlantic Telecom Dialog – Network Neutrality: Act II, DigiWorld 2011 Summit: 33rd International IDATE Conference on “Will the Device Be King,” Montpellier, France (November 16, 2011).

Coase Revisited: Property Theory Through the Lens of Spectrum Policy, Conference on “New Dimensions in Property Theory” sponsored by the *University of Pennsylvania Law Review*, University of Pennsylvania Law School, Philadelphia, Pennsylvania (November 6, 2011).

Panel on *Communications Networks and Innovation*, Inaugural Conference on Information Policy and Modes of Innovation, Rutgers Institute for Information Policy and Law, Rutgers School of Law-Camden, Camden, New Jersey (November 4, 2011).

Book Symposium on NETWORKS IN TELECOMMUNICATIONS: ECONOMICS AND LAW, University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 24, 2011).

Overview of Cloud Computing, Cloud Computing Conference: Law and Policy Issues in the Cloud, Centre for Innovation Law and Policy, University of Toronto, Toronto, Canada (October 14, 2011).

The Future of Internet Law, Conference on “Communications Law and Policy in the Digital Age: The Next Five Years,” Free State Foundation, Washington, D.C. (October 12, 2011).

Internet Architecture and Regulation, Workshop and Lecture Series on Technology Policy, Law, and Economics, cosponsored by the Swiss Federal Institute of Technology Zurich and the University of Zurich, Zurich, Switzerland (October 4–5, 2011).

The Enduring Role of the Common Law of Copyright During the Age of Statutes, Conference on “Intellectual Property and the Common Law: Lessons and Synergies,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 7, 2011).

Copyright and Personhood Revisited: The Role of Play, James E. Beasley School of Law, Temple University, Philadelphia, Pennsylvania (April 4, 2011).

Moderator, Panel on *Open Source and Derivative Works*, Annual Symposium on Copyright Law, Penn Intellectual Property Group, University of Pennsylvania Law School, Philadelphia, Pennsylvania (March 22, 2011).

Technologies of Control and the Future of the First Amendment, Conference on “The Constitution in the Age of Obama,” *William & Mary Law Review*, William & Mary Law School, Williamsburg, Virginia (February 26, 2011).

Integrating Engineering Principles into Internet Policy: A Critical Reexamination of Layering and the End-to-End Argument, Duke Law Review’s 41st Annual Administrative Law Symposium, Duke Law School, Durham, North Carolina (February 25, 2011).

Reregulation of Telecommunications and the Clash Between Competing Visions of How Best to Promote Competition and Innovation, Conference on “Reregulation” sponsored by the *Journal of Corporation Law*, University of Iowa College of Law, Iowa City, Iowa (February 18, 2011).

Panel on *Control*, Penn Internet Scholars Workshop, Philadelphia, Pennsylvania (February 11, 2011).

Broadband Policy: What’s Next After the FCC’s Net Neutrality Decision?, 3rd Annual Winter Telecom Policy Conference, Free State Foundation, Washington, D.C. (February 4, 2011).

Integrating Engineering Principles into Internet Policy: A Critical Reexamination of Layering and the End-to-End Argument, Center on Law and Information Policy, Fordham University School of Law, New York, New York (January 28, 2011).

Panel on *Congress and the Open Internet Order: Discuss*, 7th Annual State of the Net Conference, Congressional Internet Caucus Advisory Committee, Washington, D.C. (January 19, 2011).

The Federal Takeover of the U.S. Telephone System During World War I, Wharton Colloquium on Media and Communications Law, University of Pennsylvania, Philadelphia, Pennsylvania (December 10, 2010).

Promoting the Buildout of New Networks vs. Compelling Access to the Monopoly Loop: A Clash of Regulatory Paradigms, “Equal Access Issues in Communications Law,” 4th International Conference of the Center for Law and Public Utilities, Seoul National University, Honolulu, Hawaii (November 26, 2010).

“Perspectives on the Future of Digital Communications,” Time Warner Cable Research Program on Digital Communications and Information Technology and Innovation Foundation, Washington, D.C. (November 16, 2010).

Future Internet Architecture Workshop, National Science Foundation, Arlington, Virginia (November 15–16, 2010).

Cloud Computing: Architectural and Policy Implications, Conference on “Antitrust and the Dynamics of Competition in ‘New Economy’ Industries,” Technology Policy Institute, Washington, D.C. (October 22, 2010).

Panel on *Investment Community’s Sentiment*, Conference on “The State of Telecom – 2010: Matching Supply and Demand for the Next Generation of Broadband,” Columbia Institute on Tele-Information, New York, New York (October 15, 2010).

Product Life Cycle Theory and the Maturation of the Internet, 38th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (October 2, 2010).

Panel on *The Role of Managed Services on Broadband Networks*, Information Technology and Innovation Foundation, Washington, D.C. (October 1, 2010).

Public and Private Censorship: The Enduring Distinction, Conference on “Bits Without Borders: Law, Communications & Transnational Culture Flow in a Digital Age,” Intellectual Property & Communications Law Program, Michigan State University, East Lansing, Michigan (September 24, 2010).

The Exception to the Exception: Nationalization of American Telecommunications During World War I, Annual Meeting of the American Political Science Association, Washington, D.C. (September 3, 2010).

Antitrust and Competition in High-Tech Industries, Aspen Forum, Technology Policy Institute, Aspen, Colorado (August 23, 2010).

Integrating Engineering Principles into the Network Neutrality Debate, International Telecommunications Society 18th Biennial and Silver Anniversary Conference, Waseda University, Tokyo, Japan (June 28, 2010).

The Changing Internet, Center for Global Communications (GLOCOM), International University of Japan, Tokyo, Japan (June 7, 2010).

Federal Communications Oversight and Authority: Who Is in Charge?, Congressional Internet Caucus Advisory Committee, U.S. Capitol, Washington, D.C. (May 11, 2010).

Panel on *New Applications, New Challenges*, Conference on “Rough Consensus and Running Code: Integrating Engineering Principles into the Internet Policy Debates,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 7, 2010).

Tutorial for Agency and Legislative Staff, Conference on “Rough Consensus and Running Code: Integrating Engineering Principles into the Internet Policy Debates,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 6, 2010).

Panel on *Changing Technology and the Limits of the Layered and End-to-End Models*, Conference on “Rough Consensus and Running Code: Integrating Engineering Principles into the Internet Policy Debates,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 6, 2010).

Copyright and Personhood Revisited: The Role of Play, Intellectual Property Speaker Series, Benjamin N. Cardozo School of Law, Yeshiva University, New York, New York (April 21, 2010).

Copyright and Personhood Revisited: The Role of Play, Earle Mack School of Law, Drexel University, Philadelphia, Pennsylvania (April 7, 2010).

The Transformation of the Internet, Annenberg School for Communication, University of Pennsylvania, Philadelphia, Pennsylvania (April 2, 2010).

Panel on *New Technology and the First Amendment: What Is the Rationale for Regulation?*, Seminar on “Media Regulation and the First Amendment in the 21st Century,” cosponsored by the Federal Communications Bar Association Mass Media Committee, Freedom Forum, and the ABA Forum on Communications Law, Washington, D.C. (March 31, 2010).

Participant, Colloquium on “Intellectual Property and New Media,” Acton School of Business, Austin, Texas (March 26–27, 2010).

Panel on *How Can Open Internet Principles Impact Innovation Amongst Those Who Have Not Yet Adopted Broadband?*, Media and Technology Policy Forum on “Open Internet, Innovation and Economic Development,” Joint Center on Political and Economic Studies, Washington, D.C. (March 3, 2010).

Moderator, Debate on *Originalism in Criminal Procedure: Ancient Checks or Newfangled Rights?*, 2010 Federalist Society National Student Symposium, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 26, 2010).

Product Life Cycle Theory and the Maturation of the Internet, Law and Economics Workshop, Boston University School of Law, Boston, Massachusetts (February 17, 2010).

Panel on *The FCC’s Net Neutrality NPRM Comments: Where Are We?*, 6th Annual State of the Net Conference, Congressional Internet Caucus Advisory Committee, Washington, D.C. (January 26, 2010).

Free Speech and the Myth of the Internet as an Unintermediated Experience, Seton Hall University School of Law, Newark, New Jersey (January 19, 2010).

Panel on *Net Neutrality Regulation: Why Now – or Ever?*, 2nd Annual Winter Telecom Policy Conference, Free State Foundation, Washington, D.C. (January 29, 2010).

Tech Debate on *Network Neutrality*, Web 2.0 Expo, cosponsored by TechWeb and O’Reilly Media, New York, New York (November 17, 2009).

Roundtable on *The Limits of Antitrust Revisited*, Searle Center on Law, Regulation, and Economic Growth, Northwestern University School of Law, Chicago, Illinois (October 29–30, 2009).

Panel on *Networks for the Future: The Importance of Wired and Wireless Next Generation Networks*, Technology Policy Forum on “New Media, New Networks: The Evolution of Content on the Internet,” cosponsored by Arts+Labs and the Institute for Politics, Democracy & the Internet, Graduate School of Political Management, George Washington University, Washington, D.C. (October 29, 2009).

Panel on *Net Neutrality: Understanding the FCC's Proposed Rule Making*, Congressional Internet Caucus Advisory Committee, Washington, D.C. (October 28, 2009).

Panel on *Internet Public Policy Issues & Alternative Solutions*, Workshop on “When Want & Freedom Collide: Finding a Fair Internet Capacity Sharing Solution,” Global Information Infrastructure Commission, London, England (September 30, 2009).

Free Speech and the Myth of the Internet as an Unintermediated Experience, 37th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 26, 2009).

Panel on “End-to-End Arguments, Internet Innovation, and the Net Neutrality Debate,” Information Technology and Innovation Foundation, Washington, D.C. (September 25, 2009).

Free Speech and the Myth of the Internet as an Unintermediated Experience, Penn Interactive Media Colloquium, Wharton School, Philadelphia, Pennsylvania (September 11, 2009).

Network Neutrality after Comcast: Toward a Case-by-Case Approach to Reasonable Network Management, Conference on “New Directions in Communications Policy,” Free State Foundation, Washington, D.C. (September 10, 2009).

Rethinking Personality Theory Through the German Aesthetic Concept of Spiel, Intellectual Property Scholars Conference, Cardozo Law School, New York, New York (August 7, 2009).

Panel on “The Net Effect: Net Neutrality and Other Access to Technology Issues,” American Constitution Society National Convention, Washington, D.C. (June 20, 2009).

The Maturation of the Broadband Industry and the Shift from Extensive to Intensive Competition, Conference on “Maturing Internet Studies,” Northwestern University Law School, Chicago, Illinois (May 20, 2009).

Nonrivalry and Price Discrimination in Copyright Economics, 19th Annual Meeting of the American Law and Economics Association, University of California at San Diego, San Diego, California (May 15, 2009).

The Transformation of the Internet, Association for Computing Machinery, School of Engineering and Applied Sciences, Columbia University, New York, New York (April 13, 2009).

Moderator, Panel on “Trademark Law in Virtual Environments,” Symposium on “Trademark in a Global Economy,” Penn Intellectual Property Group, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 1, 2009).

The Transformation of the Internet, Center for Information and Technology Policy, Princeton University, Princeton, New Jersey (March 26, 2009).

The Transformation of the Internet, Internet and Media Policy Working Group, Annenberg School for Communication, University of Pennsylvania, Philadelphia, Pennsylvania (February 23, 2009).

Network Neutrality after Comcast: Toward a Case-by-Case Approach to Reasonable Network Management, Conference on “New Directions in Communications Policy,” Free State Foundation, Washington, D.C. (February 26, 2009).

The Evolution of Internet Architecture: From Best Efforts and End-to-End to Reasonable Network Management?, Conference on “The Digital Broadband Migration: Imagining the Internet’s Future,” Silicon Flatirons Telecommunications Program, University of Colorado, Boulder, Colorado (February 8–9, 2009).

Introduction and Response to Comments, “Presidential Power in Historical Perspective,” *University of Pennsylvania Journal of Constitutional Law*, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 6–7, 2009).

Nonrivalry and Price Discrimination in Copyright Economics, Conference on “Foundations of Intellectual Property Reform,” cosponsored by Penn Center for Technology, Innovation and Competition and the *University of Pennsylvania Law Review*, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 16–17, 2009).

The Transformation of the Internet, Wharton Colloquium on Media and Communications Law, University of Pennsylvania, Philadelphia, Pennsylvania (December 6, 2008).

Commentator, Vanderbilt Intellectual Property Roundtable, Vanderbilt University Law School, Nashville, Tennessee (November 14, 2008).

Panel on “The Future of the Internet and How to Stop It,” 36th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 26, 2008).

The Transformation of Telecommunications Network Regulation, Research Roundtable on *Networks in Telecommunications*, Searle Center on Law, Regulation, and Economic Growth, Northwestern University School of Law, Chicago, Illinois (September 19, 2008).

Is Open Source Software the New Lex Mercatoria?, 12th Annual Conference of the International Society for New Institutional Economics, University of Toronto, Toronto, Canada (June 21, 2008).

Chair, Panel on Copyright, 18th Annual Meeting of the American Law and Economics Association, Columbia University School of Law, New York, New York (May 16, 2008).

Toward a Unified Theory of Access to Local Telephone Networks, Conference on “The Enduring Lessons of the Breakup of AT&T: A Twenty-Five Year Retrospective,” Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 18, 2008).

- Wireless Telephony: A Case Study in Network Diversity*, Conference on “The Emerging Controversy over Network Management: An Economic Perspective,” AEI Center for Regulatory and Market Studies, Washington, D.C. (April 2, 2008).
- Moderator, Panel on *Government Oversight in the Internet Age: Does America Need an IP Czar?*, Symposium on “Copyright and the Internet,” Penn Intellectual Property Group, University of Pennsylvania Law School, Philadelphia, Pennsylvania (March 19, 2008).
- The Potential Benefits of Network Management*, Conference on “Network Management: The Latest Battle Over Net Neutrality,” iGrowthGlobal, Washington, D.C. (February 29, 2008).
- Network Neutrality, Consumers, and Innovation*, Annual Meeting of the American Economic Association, New Orleans, Louisiana (Jan. 6, 2008).
- Innovation in Wireless Telephony: A Case Study in Network Diversity*, Conference on the “Federal Unbundling Commission,” Free State Foundation, Washington, D.C. (October 30, 2007).
- Network Neutrality, Innovation, and Consumers*, Symposium on “Law in a Networked World,” University of Chicago Legal Forum, Chicago, Illinois (October 26, 2007).
- Mandating Access to Telecom and the Internet: The Hidden Side of Trinko*, 35th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 30, 2007).
- Copyright and Public Good Economics: A Misunderstood Relation*, Law and Economics Workshop, Boalt Hall School of Law, University of California at Berkeley, Berkeley, California (March 19, 2007).
- Panel on *Network Neutrality*, 3rd Annual State of the Net Conference, Congressional Internet Caucus Advisory Committee, Washington, D.C. (January 31, 2007).
- Panel on *Will the Internet Restructure Telephony?*, 2007 Annual Meeting of the Association of American Law Schools, Washington, D.C. (January 5, 2007).
- Panel on *Net Neutrality: Battle of the Titans*, 2006 Annual National Lawyers Convention, Federalist Society, Washington, D.C. (November 16, 2006).
- Symposium on “Telecommunications Regulation,” Center for Communications Law and Policy and Center for Asian-Pacific Leadership, University of Southern California, Los Angeles, California (October 12–13, 2006).
- Moderator, Panel on *The Origins of the Debate over Originalism and the Living Constitution*, Conference on “Keeping Faith with the Constitution in Changing Times,” American Constitution Society and the Vanderbilt University Law School, Nashville, Tennessee (October 6, 2006).

- Moderator, Panel on *Internet Content Protection and Commerce*, 34th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (October 1, 2006).
- Panel on *The Relationship Between Antitrust and Regulation after Trinko and Brand X*, 34th Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 29, 2006).
- Panel on *Network Neutrality and the Future of Openness on the Internet*, 16th Conference on Computers, Freedom and Privacy, Washington, D.C. (May 4, 2006).
- Network Neutrality and the Economics of Congestion*, School of Law Entertainment, Media, and Cultural Policy Colloquium, University of California at Los Angeles School of Law, Los Angeles, California (April 7, 2006).
- Network Neutrality and the Economics of Congestion*, University of Pennsylvania Law School, Philadelphia, Pennsylvania (March 28, 2006).
- Beyond Network Neutrality*, Internet Society Project, Yale Law School, New Haven, Connecticut (February 16, 2006).
- Network Regulation: The Many Faces of Access*, Program on Socio-Technical Infrastructure for Electronic Transactions, University of Michigan School of Information, Ann Arbor, Michigan (December 1, 2005).
- Copyright as an Impure Public Good*, Legal Theory Workshop, University of Michigan Law School, Ann Arbor, Michigan (November 17, 2005).
- Network Neutrality and the Economics of Congestion*, Wharton Colloquium on Media and Communications Law, University of Pennsylvania, Philadelphia, Pennsylvania (October 28, 2005).
- Panel on *Interoperability in the Network Economy*, Conference on “Must History Repeat Itself? Interoperability and Access in the Network Economy,” Georgetown University Culture and Technology Program and Quello Center for Telecommunications Management and Law and Communications of Michigan State University, Washington, D.C. (October 12, 2005).
- On the Regulation of Networks as Complex Systems: A Graph Theory Approach*, 33rd Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 26, 2005).
- Panel on *Network Neutrality vs. Network Diversity: The Debate Between Open and Proprietary Broadband Architectures*, 33rd Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 25, 2005).

On the Regulation of Networks as Complex Systems: A Graph Theory Approach, 15th Annual Meeting of the American Law and Economics Association, New York University School of Law, New York, New York (May 6, 2005).

On the Regulation of Networks as Complex Systems: A Graph Theory Approach, Workshop on Cyberlaw and Economics, University of Michigan Law School, Ann Arbor, Michigan (March 24, 2005).

Architectural Censorship and the FCC, 32nd Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (October 3, 2004).

The Economics of Net Neutrality: Why the Physical Layer of the Internet Should Not Be Regulated, Progress & Freedom Foundation, Washington, D.C. (July 16, 2004) (keynote address).

Towards a General Theory of Network Architecture, Center for Law and Technology, Seoul National University, Seoul, Korea (June 15, 2004).

Copyright and Product Differentiation, Intellectual Property Colloquium, University of Virginia School of Law, Charlottesville, Virginia (March 26, 2004).

Architectural Censorship and the FCC, Conference on Federal Regulation and the Cultural Landscape, Curb Center for Art, Enterprise, and Public Policy at Vanderbilt University, Nashville, Tennessee (March 19, 2004).

Would Broadband Network Neutrality Help or Hurt Competition? A Comment on the End-to-End Debate, Conference on “The Digital Broadband Migration: Toward a Regulatory Regime for the Internet Age,” Silicon Flatirons Telecommunications Program, University of Colorado, Boulder, Colorado (February 9, 2004).

Copyright and Product Differentiation, Center for Law and Economic Studies, Columbia University Law School, New York, New York (February 2, 2004).

Copyright and Product Differentiation, Works in Progress Intellectual Property Colloquium 2003, Tulane University Law School, New Orleans, Louisiana (October 18, 2003).

Copyright and Product Differentiation, 13th Annual Meeting of the American Law and Economics Association, University of Toronto, Toronto, Canada (September 21, 2003).

Access to Networks: Economic and Constitutional Connections, 31st Annual Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, Virginia (September 20, 2003).

Copyright and Product Differentiation, 2nd Annual Congress of the Society for Economic Research on Copyright Issues, Smith College, Northampton, Massachusetts (June 20, 2003).

Chair, Panel on *Regulatory and Interagency Governance*, 4th Annual Quello Communications Policy and Law Symposium, Washington D.C. (February 27, 2003).

The Paradoxical Commitment to Free, Local Television, Workshop on Law and Economics, Georgetown University Law Center, Washington, D.C. (February 3, 2003).

Chair, Panel on *The Fair Use Doctrine and Its Implications on the Entertainment Industry*, Journal of Entertainment Law & Practice Fair Use Symposium, Vanderbilt University Law School, Nashville, Tennessee (February 7, 2003).

Rethinking the Commitment to Free, Local Television: A Public Goods Critique, Northwestern University School of Law, Chicago, Illinois (October 29, 2002).

Access to Networks: Economic and Constitutional Connections, Institute for Law and Economics, University of Pennsylvania Law School, Philadelphia, Pennsylvania (October 9, 2002).

Rethinking the Commitment to Free, Local Television: A Public Goods Critique, Vanderbilt University Law School, Nashville, Tennessee (September 10, 2002).

Digital Television and the Future of Broadcast Regulation, Washington & Lee School of Law, Lexington, Virginia (February 18, 2002).

Digital Television and the Future of Broadcast Regulation, Vanderbilt University Law School, Nashville, Tennessee (February 12, 2002).

Rethinking the Coasean Critique of Broadcast Regulation, Vanderbilt University Law School, Nashville, Tennessee (November 27, 2001).

Digital Television and the Future of Public Interest Broadcasting, Panel on “Media, Diversity, and Democracy,” Annual Meeting of the Law & Society Association, Central European University, Budapest, Hungary (July 5, 2001).

Vertical Restraint Theory as a Basis for Media Regulation, Center for Communications Law and Policy, University of Southern California Law School, Los Angeles, California (February 14, 2001).

Vertical Restraint Theory as a Basis for Media Regulation, Vanderbilt University Law School, Nashville, Tennessee (January 23, 2001).

In Search of a Foundation Theory for the Regulation of Emerging Mass Media: A Critique of the Antitrust Paradigm, Annual Meeting of the Southeastern Association of American Law Schools, Captiva Island, Florida (August 1, 2000).

A Cautionary Note on the Democratic Approach to Copyright, Symposium on “Taking Stock: The Law and Economics of Intellectual Property,” Vanderbilt University Law School, Nashville, Tennessee (April 7, 2000).

The Unitary Executive During the First Half-Century, Symposium on “Presidential Power in the 21st Century,” Case Western Reserve University School of Law, Cleveland, Ohio (April 5, 1997).

Other Presentations

Federal Communications Bar Association Meet and Greet, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 9, 2018).

1 World Connected: Data-Driven Research to Bring Billions Online, Trustees of the University of Pennsylvania, Philadelphia, Pennsylvania (March 1, 2018).

What’s New in Net Neutrality?, cosponsored by the Wharton Tech Club and the Wharton Public Policy Club, University of Pennsylvania, Philadelphia, Pennsylvania (February 14, 2018).

What’s Next with Net Neutrality?, Center for Technology, Innovation and Competition, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 7, 2018).

Debating Network Neutrality, cosponsored by the American Constitution Society and the Federalist Society, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 19, 2018).

Moderator, Panel on “Data Security,” 17th Annual Mid-Atlantic Conference of Asian Pacific American Law Students, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 13, 2018).

Promoting the Rule of Law in Antitrust Enforcement: China, Europe, and the U.S., “Engaging Minds” Program, University of Pennsylvania, New York, New York (December 9, 2017).

Overview of CTIC Research, University of Pennsylvania Staff Convention, Philadelphia, Pennsylvania (May 25, 2017).

James Wilson and the Creation of the Constitution, “We, the People” Podcast Series, National Constitution Center, Philadelphia, Pennsylvania (May 4, 2017).

Internet Inclusion: Advancing Solutions, sponsored by IEEE in collaboration with 1 World Connected, Guifi.net, Internet Society, ITU, Partnership for Public Access, People Centered Internet, USAID, World Bank, and the World Economic Forum, Washington, D.C. (April 24–25, 2017).

Working Meeting, Internet for All Project in Argentina, World Economic Forum, Buenos Aires, Argentina (April 4–5, 2017).

How Big Data and Social Networks Are Changing the Way We Live, Penn Academy Weekend, Palm Beach, Florida (March 4, 2017).

Panel on “Legal Aspects of New Technology,” 16th Annual Mid-Atlantic Conference of Asian Pacific American Law Students, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 8, 2017).

Post-Election Series: APALSA Lunch Discussion, Asian Pacific American Law Students Association, University of Pennsylvania Law School, Philadelphia, Pennsylvania (November 18, 2016).

Post-Election Forum: The Role of Law and Legal Institutions, University of Pennsylvania Law School, Philadelphia, Pennsylvania (November 15, 2016).

Penn Law Convening Session Dialogue, Niejelow-Rodin Initiative on Law, Technology, National Security and the Private Sector, University of Pennsylvania Law School, Philadelphia, Pennsylvania (November 10, 2016).

Moderator, “Startup Panel: A Discussion About the IP Portfolio Considerations of Small Businesses Throughout the Startup Process,” Penn Intellectual Property Group Annual Conference, University of Pennsylvania Law School, Philadelphia, Pennsylvania (March 17, 2016).

“Five Cybersecurity Lessons from Home Depot and Target,” Fall Advisory Board Meeting, Jay H. Baker Retailing Center, Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania (October 30, 2014).

Moderator, “Technology, Security, and the Future of the Fourth Amendment,” University of Pennsylvania Law School Chapter, Federalist Society (October 14, 2014).

Dinner Discussion on Network Neutrality, Science and Technology Wing (STWing), University of Pennsylvania, Philadelphia, Pennsylvania (February 10, 2014).

Opening Remarks, 13th Annual Mid-Atlantic Conference of Asian Pacific American Law Students, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 8, 2014).

Moderator, Plenary Session on *Embracing, Reconciling, and Exploring the Modern Asian Identity*, 12th Annual Mid-Atlantic Conference of Asian Pacific American Law Students, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 2, 2013).

Workshop on Innovation, Hudson Institute, Washington, D.C. (February 11, 2013).

The Dynamic Internet: How Technology, Users, and Businesses Are Transforming the Network, Internet Policy Lunch Seminar, Telecom Italia, Rome, Italy (October 29, 2012).

Speaker, Levy Scholars and Silverman-Rodin Scholars Luncheon, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 17, 2012).

- Moderator, Panel on *Going Around the Horn – Views from the Baseball Clubhouse on Key Legal Issues Currently Impacting the Game*, Alumni Weekend 2011, University of Pennsylvania Law School, Philadelphia, Pennsylvania (May 13, 2011).
- Chair, Panel on *A Decade of Firsts: Asian Americans in the Judiciary*, 10th Annual Mid-Atlantic Conference of Asian Pacific American Law Students, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 29, 2011).
- Panel on *The Regulation of the Internet*, Federalist Society, National Press Club, Washington, D.C. (December 16, 2010).
- Global Policy Keynote, Nominum Customer Conference, New York, New York (October 7, 2010).
- Panel on *Net Neutrality*, Orange County Chapter of the Federalist Society, Chapman University School of Law, Orange, California (March 29, 2010).
- Dinner Discussion on Network Neutrality, Science and Technology Wing (STWing), University of Pennsylvania, Philadelphia, Pennsylvania (March 25, 2010).
- Panel on *What Can You Do with a Law Degree*, 9th Annual Mid-Atlantic Conference of Asian Pacific American Law Students, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 13, 2010).
- Global Policy Keynote: *Public Policy and the Economics of Intermediation*, Nominum Customer Conference, Sausalito, California (October 16, 2009).
- The Transformation of the Internet*, Penn Intellectual Property Group, University of Pennsylvania Law School, Philadelphia, Pennsylvania (April 21, 2009).
- The Internet Evolution*, Education Trip for Capitol Hill Staff, Information Technology and Innovation Foundation, Philadelphia, Pennsylvania (April 15, 2009).
- Panel on *Making the Leap*, 8th Annual Mid-Atlantic Conference of Asian Pacific American Law Students, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 31, 2009).
- Panel on *Net Neutrality: Emerging Issues and Perspectives*, Winter Meeting of the National Association of Attorneys General, Fort Lauderdale, Florida (December 3, 2008).
- Regulatory Policy Keynote, *The Policy and Politics of Network Neutrality: What It Means for You*, Nominum Global Customer Conference on “Securitization, Monetization and the Trusted Internet Experience, New York, New York (October 17, 2008).
- Workshop on “End User Opt-In,” Global Environment for Network Innovations (GENI), National Science Foundation, Cambridge Massachusetts (July 21–22, 2008).

Panel on *Making Partner – What’s the Big Deal?*, 7th Annual Mid-Atlantic Conference of Asian Pacific American Law Students, University of Pennsylvania Law School, Philadelphia, Pennsylvania (February 2, 2008).

Panel on *The Jurisprudence of Justice Kennedy*, Annual Meeting of the Southeastern Association of American Law Schools, Amelia Island, Florida (August 4, 2007).

Panel on *Asian-Americans in Academia*, 6th Annual Mid-Atlantic Conference of Asian Pacific American Law Students, University of Pennsylvania Law School, Philadelphia, Pennsylvania (January 27, 2007).

Chair, Panel on *Regulation of VoIP – To Regulate or Not to Regulate, Is That the Question?*, Conference on “VoIP – A New Day in Telecommunications?,” Tennessee Regulatory Authority, Nashville, Tennessee (April 30, 2004).

Convergence and Access: New Paradigms of Regulation, Tennessee Regulatory Authority Legal Retreat, Nashville, Tennessee (June 13, 2003).

Overview of U.S. Media Ownership Regulations, Public Hearing on “Media and Democracy: Where Are We and What’s Next?,” Emory University, Atlanta, Georgia (May 21, 2003).

Legal Overview of U.S. Media Ownership Regulations, Public Forum on “Media Ownership: A Forum on FCC Rules,” Center for Communications Law and Policy, University of Southern California, Los Angeles, California (April 28, 2003).

Bracing for First Monday, National Conference of Editorial Writers, Nashville, Tennessee (September 21, 2002).

Reflections of a New Law Teacher, Association of American Law Schools Workshop for New Law Teachers, Washington, D.C. (June 29, 2002).

A “Crash” Course on *Florida Election Law*, Panel Discussion on “Who Won the Election: What Happens When Law and Politics Collide?,” Vanderbilt University Law School, Nashville, Tennessee (November 14, 2000).

References available on request.