

Law and Technology at Penn

2017 – 2018



Center for Technology, Innovation and Competition



Law and Technology at Penn

2017 – 2018



Center for Technology, Innovation and Competition



The mission of the University of Pennsylvania Law School's Center for Technology, Innovation and Competition (CTIC) is to create the nation's foremost program in law and technology through pathbreaking scholarship and innovative educational programs.

Our faculty is generating foundational research that is helping to influence the way that policymakers think about technology-related issues. This scholarship often taps into the vast interdisciplinary expertise both within the Law School and other parts of Penn, including The Wharton School, the Annenberg School for Communication, and the School of Engineering and Applied Science.

CTIC delivers scholarly programming that explores the full range of scholarly perspectives and engages with technology policy and practice. It also organizes student events designed to create the next generation of technology law scholars, policymakers, and practitioners

For more information and a schedule of current and upcoming events at CTIC, visit our website at www.law.upenn.edu/ctic and follow us on Twitter @pennlawctic.

Table of Contents

1 A Message from the Directors

2 CTIC Faculty

- 4 Core Faculty
- 25 Secondary Faculty
- 30 Affiliated Faculty
- 36 Adjunct Faculty
- 38 Fellows and Managing Director

40 Ten-Year Anniversary

46 Major Conferences

- 48 Inaugural Junior Faculty Forum on Law and STEM
- 52 Sixth Annual Global Patent Law Conference
- 54 After the Digital Tornado
- 58 Robo Advisors at the Regulatory Crossroads
- 62 Sixth Annual Computer Science and the Law Roundtable
- 66 Third Annual Copyright Scholarship Roundtable
- 70 Due Process, Transparency, and Fairness in Antitrust Enforcement: China, Europe, and the U.S.

74 Events and Programs

- 76 The Future of Standard Essential Patents: Learning from Microsoft v. Motorola's Legacy
- 78 New Perspectives on Spectrum Policy
- 80 The Right to Privacy in the Supreme Court of India
- 80 The Role of the U.S. in the International Intellectual Property System
- 81 Current Issues in Law and Technology
- 84 Law and Technology Scholarship Workshop Series
- 85 Career Speaker Series

86 News

- 88 Launch of the New *Journal of Law & Innovation*
- 89 NSF Grant on Securing the Routing Infrastructure
- 90 Comparative Study of Chinese, European, and U.S. Competition Enforcement
- 91 1 World Connected
- 92 NSF Grant on Secure and Privacy-Aware Cyber-Physical Systems
- 93 Tsinghua Global Forum
- 94 FCC's Broadband Deployment Advisory Committee
- 95 CTIC Faculty and the American Law Institute (ALI)
- 96 Detkin Intellectual Property and Technology Legal Clinic
- 97 Cutting-Edge Joint Degree Programs in Law and Engineering
- 98 CTIC Summer Public Interest Fellowships
- 99 Clerkships in Patent Law
- 100 Penn Intellectual Property Group (PIPG)
- 101 Students for Technological Progress (STP)
- 101 Partnership for Entrepreneurial Engineering and Penn Law (PEEPL)



Lisa Sotto L'87, Thomas Penn L'82, Barbara McClung L'87, William Ferullo L'01, Christopher Yoo



Gary Sangha L'03, Osagie Imasogie GL'85, Emilio Cividanes L'83, Christopher Yoo

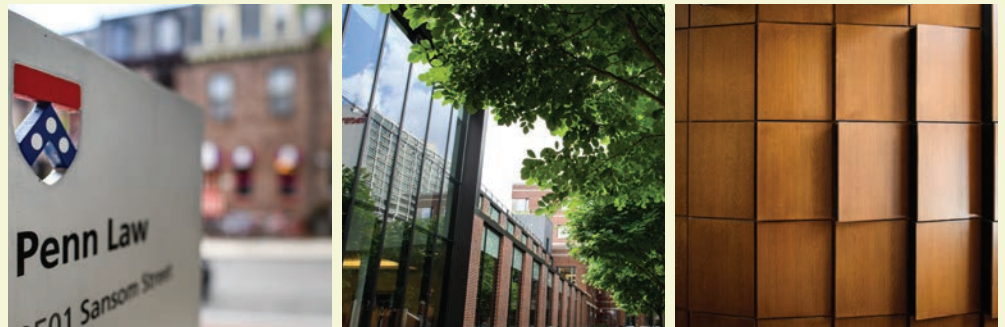
A Message from the Founding Director and Co-Director

This report commemorates a special year for the Center for Technology, Innovation and Competition as we celebrated our 10th anniversary. This milestone allowed us to take stock of how much we have accomplished in the past ten years and provided us with the opportunity to think about how we want the next ten years to take shape. We are proud of what we achieved and remain committed to being at the cutting edge of law and technology—in our research, innovative educational programs, and curricula as we push out the boundaries of scholarly knowledge and help students have the most enriching and rewarding academic experience.

Finally, CTIC is thankful to all of its friends and supporters for bringing their perspectives, experiences, participation, and expertise to our programs. With their support, we have been able to continue serving as a leading academic center in technology and innovation policy.



Center for Technology, Innovation and Competition



CTIC Faculty

The Center for Technology, Innovation and Competition is privileged to draw on cross-disciplinary expertise from across the University of Pennsylvania. In addition to the Law School, CTIC brings together faculty from the top-ranked Wharton School, the University's School of Engineering and Applied Science, the Cinema Studies Program, and the Annenberg School for Communication.

Research is a core function of the Center for Technology, Innovation and Competition. By providing a forum where faculty can engage with one another across multiple disciplines, the Center seeks to encourage informed, high-quality research that will advance the understanding of technology and innovation policy.

**DAVID ABRAMS**

“The most common proxy for patent value used by policymakers and economic scholars is the number of times a patent is cited by subsequent patents. However, there is surprisingly little direct evidence that more highly cited patents are more valuable ones, and existing validation studies have not considered differences between private and social value. One key part of my current research examines the relationship between the number of citations to a drug patent and the private and social value of that drug. This new dataset also sheds new light on the share of social welfare gains appropriated by firms, an important issue in patent law and innovation policy on which there is also little evidence.”

David Abrams

Professor of Law, Business Economics, and Public Policy

David Abrams is one of the leading young economists working in empirical law and economics. His work covers a range of topics, tied together by goal of understanding and measuring how individuals respond to incentives in various legal contexts. Criminal justice is one of his major areas of expertise, where Abrams has investigated a variety of questions, including whether longer sentences deter crime, how defendant race impact judicial decisions, to what extent attorney skill affects case outcomes, and how much individuals value freedom.

Intellectual property is Abrams's other major area of expertise, where he has investigated the expected impact of the America Invents Act, examined the effect of patent duration on innovation, and is using natural language processing to establish more reliable measures of patent value. He has additional interests in law and health economics, labor economics, and corporate finance. His work has appeared in a number of top peer-reviewed journals and law reviews including the *Stanford Law Review*, *University of Chicago Law Review*, *University of Pennsylvania Law Review*, *American Economic Journal: Applied Economics*, and *Journal of Legal Studies*.

Expertise

Law and Economics, Intellectual Property, Criminal Law, Patent Law

Secondary Appointments

Business Economics and Public Policy, Wharton School

Education

PhD 2006 Massachusetts Institute of Technology

MS 2001 Stanford University

AB 1998 Harvard University

Courses Taught

- Introduction to Intellectual Property Law and Policy
- Advanced Topics in Intellectual Property
- Law and Economics
- Analytical Methods in Law

Representative Publications

Poisoning the Next Apple: How the America Invents Act Harms Inventors, 65 *STAN. L. REV.* 517 (2013) (with R. Polk Wagner).

Did TRIPS Spur Innovation? An Analysis of Patent Duration and Incentives to Innovate, 157 *U. PA. L. REV.* 1613 (2009).

Exclusion Limits on the Wimp-Nucleon Cross Section from the Cryogenic Dark Matter Search, 66 *PHYS. REV. D* 122003-1-35 (2002) (with D. Akerib, et al).

Deployment of the First CDMS II ZIP Detectors at the Stanford Underground Facility, 110 *NUCLEAR PHYS. B PROC. SUPP.* 100 (2002) (with T. Saab, et al).

Recent Publications

The NPE: Benevolent Middleman or Stick-Up Artist? (working paper) (with Ufuk Akcigit & Gokhan Oz).

Patent Value and Citations: Creative Destruction or Strategic Disruption, (Penn Inst. for Econ. Res. Working Paper No. 13-065 2013) (with Ufuk Akcigit & Jillian Popadak).

Judicial Delegation (2018) (working paper) (with Roberto Galbiati, Emeric Henry, & Arnaud Phillippe).



SHYAMKRISHNA BALGANESH

“My work explores the analytical complexity of the copyright system and its ability to foster a culture of creativity. My emphasis is on showing that the system works best when it incorporates insights from other areas of the law and enables multiple institutional actors to participate in law- and policy-making. Copyright law has traditionally relied on a one-size-fits-all approach to creativity, which has failed to keep up with the multitude of technological and cultural changes that we see in society. The system would be far better served by a more robust and pluralist approach to the subject.”

Shyamkrishna Balganesesh

Professor of Law; Co-Director of CTIC

Shyam Balganesesh is a Professor of Law and Co-Director of the Center for Technology, Innovation and Competition (CTIC) at the Law School. His scholarship focuses on understanding how intellectual property and innovation policy can benefit from the use of ideas, concepts, and structures from different areas of the common law, especially private law. His most recent work examines the evolution of American copyright law from a predominantly private law regime to a public law-based regulatory system under the influence of Legal Process thinking. While at Yale Law School, he was an Articles & Essays Editor of the *Yale Law Journal* and a Student Fellow at the Information Society Project (ISP). Prior to that, he spent two years as a Rhodes Scholar at Balliol College, Oxford.

Expertise

Copyright, Property Law, Intellectual Property, Patent Law, Law and Technology, Legal Philosophy

Education

JD 2007 Yale Law School

MPhil 2005, BCL 2004 University of Oxford

BA, LLB 2003 National Law School of India University

Courses Taught

- Copyright Law
- Property Law
- Copyright Theory
- Property Theory

Representative Publications

The Questionable Origins of the Copyright Infringement Analysis, 68 STAN. L. REV. 791 (2016).

Copyright Infringement Markets, 113 COLUM. L. REV. 2277 (2013).

The Obligatory Structure of Copyright Law: Unbundling the Wrong of Copying, 125 HARV. L. REV. 1664 (2012).

“Hot News”: The Enduring Myth of Property in News, 111 COLUM. L. REV. 419 (2011).

Foreseeability and Copyright Incentives, 122 HARV. L. REV. 1569 (2009).

Recent Publications

The “Common Law” in Intellectual Property, in 1 RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW (Ben Depoorter & Peter Menell eds., Edward Elgar forthcoming 2019).

THE PRIVATE LAW OF INDIA (Oxford forthcoming 2018) (with Neel Maitra).

Copyright as Market Prospect, 166 U. PA. L. REV. 443 (2018).

The Immanent Rationality of Copyright Law, 115 MICH. L. REV. 1047 (2017).

Causing Copyright, 117 COLUM. L. REV. 1 (2017).

Clarifying the “Clear Meaning” of Reparability, 166 U. PA. L. REV. ONLINE 79 (2017).



CYNTHIA LAURY DAHL

"I enjoy guiding students to become more holistic practitioners, which I think comes from being able to adopt the mindset of the client. My scholarship suggests ways to teach students to do that. I examine how to introduce interdisciplinary study into a clinical seminar class and discuss whether that has been helpful to new graduates in a technology practice. In addition, since IP and technology clinics are a relatively new phenomenon, I have been studying their innovations and best practices, gathering survey data and comparing such clinics to the rest of the clinical community. I am particularly interested in the ways that a technology practice and lawyers' use of new technology can challenge traditional legal ethics rules."

Cynthia Laury Dahl

Practice Professor of Law; Director, Detkin Intellectual Property and Technology Legal Clinic

Cynthia Dahl directs the Detkin Intellectual Property and Technology Legal Clinic, specializing in counseling clients on creating business value out of intellectual property and technological innovation. Before coming to Penn Law, she practiced for ten years as Senior IP Counsel for TruePosition, Inc., a Liberty Media-owned international wireless location company, where she managed the patent portfolio for the parent company as well as three start-up entities, and drafted and executed all IP agreements as well as oversaw standards-setting activities. Before practicing in house, she worked as an IP litigation associate at Holland and Hart LLP and Pennie and Edmonds LLP. Prior to working in the law, she also counseled artists for Volunteer Lawyers for the Art, and held several jobs in policy and the press, including working for Senator Bill Bradley (D-NJ) and Nina Totenberg of National Public Radio. Her scholarly work suggests new designs for teaching students practicing at the intersection of law, business and technology, particularly concerning how best to introduce law students to the mindsets and more of non-legal professionals. She is also interested in applying traditional rules of legal ethics to a technologically savvy practice, including how clinics can best work with university technology transfer offices.

Expertise

Intellectual Property, Law and Technology

Education

JD 1998 Stanford Law School

BA 1991 Yale University

Courses Taught

- Detkin Intellectual Property and Technology Legal Clinic

Representative Publications

Teaching Would-Be IP Lawyers to “Speak Engineer”: An Interdisciplinary Module to Teach New Intellectual Property Attorneys to Work Across Disciplines, 19 LEWIS & CLARK L. REV. 361 (2015).

Making “Friends” with the #Ethics Rules: Avoiding Pitfalls in Professional Social Media Use, 43 AIPLA Q.J. 155 (2015).

Recent Publications

Innovation and Tradition: A Survey of Intellectual Property and Technology Legal Clinics, 25 CLINICAL L. REV. 95 (2018) (with Victoria F. Phillips).

Solving Ethical Puzzles to Unlock University Technology Transfer Client Work for an Intellectual Property Legal Clinic. 23 B.U. J. SCI. & TECH. L. 1 (2017).



ALLISON K. HOFFMAN

“The most recent era of health law and policy has built on a foundation of economic theory, rooted in ideas of well-functioning markets, competition, and consumers. This theory supported the proliferation of market-based policies in various forms with promises of efficiency and minimal bureaucracy. Neither of these promises has played out. My current work draws from a mounting body of empirical research to make clear that these policies have failed to capture what people want. Even more, attempts to revive these failing policies—with regulation that seeks to improve markets or consumers—have produced a massive market-based bureaucracy, the exact opposite result from what markets are supposed to produce.”

Allison K. Hoffman

Professor of Law

Allison Hoffman is an expert in health care law and policy. Hoffman's work examines some of the most important legal and social issues of our time, including the Affordable Care Act, Medicare and retiree healthcare expenses, and long-term care. She currently teaches Health Care Law and Policy, Torts, and a seminar on Health Insurance and Reform.

Hoffman has extensive experience working as a lawyer and business consultant in the health care industry. She practiced law at Ropes & Gray, where she counseled clients on health care regulatory matters. She has also provided strategic business advice to health care companies as a consultant at The Boston Consulting Group and The Bridgespan Group. From 2010-2017, Hoffman was a member of the UCLA School of Law faculty and prior to that, was a fellow at Harvard's Petrie-Flom Center for Health Law Policy, Biotechnology, and Bioethics. Hoffman graduated summa cum laude from Dartmouth College and from Yale Law School, where she was Submissions Editor for the *Yale Journal of Health Policy, Law, and Ethics*.

Expertise

Health Law, Health Care Policy, Health Care Regulation, Insurance Law, Bioethics, Medical Malpractice, Regulated Industries, Social Welfare Law and Policy, Torts

Education

JD 2004 Yale Law School

AB 1998 Dartmouth College

Courses Taught

- Health Law and Policy
- Torts
- Health Insurance and Reform
- Ad Hoc Externship

Representative Publications

Reimagining the Risk of Long-Term Care, 16 YALE J. HEALTH POL'Y L. & ETHICS 239 (2016).

Health Care Spending and Financial Security After the Affordable Care Act, 92 N.C. L. REV. 1481 (2014).

Retiree Out-of-Pocket Healthcare Spending: A Study of Consumer Expectations and Policy Implications, 39 AM. J.L. & MED. 62 (2013) (with Howell E. Jackson).

Three Models of Health Insurance: The Conceptual Pluralism of the Patient Protection and Affordable Care Act, 159 U. PA. L. REV. 1873 (2011).

Oil and Water: Mixing Individual Mandates, Fragmented Markets, and Health Reform, 36 AM. J.L. & MED. 7 (2010).

Recent Publications

Discrimination Risks if Alzheimer's as Support for Social Insurance for Long-Term Care, 46 J.L. MED. & ETHICS 499 (2018).

The Ethics of Medicaid's Work Requirements and Other Personal Responsibility Policies, 319 JAMA 2265 (2018) (with Harald Schmidt).

THE OXFORD HANDBOOK OF U.S. HEALTH LAW (I. Glenn Cohen, Allison K. Hoffman, & William M. Sage eds., Oxford 2017).

What Health Reform Reveals About Health Law, in THE OXFORD HANDBOOK OF U.S. HEALTH LAW 49 (I. Glenn Cohen, Allison K. Hoffman, & William M. Sage eds., Oxford 2017).

Book Review, The New Eugenics: Selective Breeding in an Era of Reproductive Technologies by Judith Daar, 4 J.L. & BIOSCIENCES 671 (2017).

From the Technical to the Personal: Teaching and Learning Health Insurance Regulation and Reform, 61 ST. LOUIS U. L.J. 411 (2017) (with Whitney A. Brown & Lindsay Cutler).



DAVID HOFFMAN

“Contracting over the web has both exposed and exacerbated long-standing tensions in contract doctrine about the nature of assent and the limits of private ordering. My work illuminates these cracks in contract law’s foundation by exploring the lay psychology of contracting, with a particular emphasis on individual differences in behavior. I use case studies, experimental, and observational methods, as well as traditional case-law close-reading, to advance a more realistic theory of contract practice.”

David Hoffman

Professor of Law

David Hoffman's scholarship uses observational and experimental data to explore individuals' behavior relating to legal rules and practices. In contract law, Hoffman's recent papers have investigated whether millennials have developed a distinctive set of views about promising that relate to their experiences with online commercial transactions, and how firms use form contracts as brands to better engage users with digital platforms. In law and psychology, he has explored the "replication crisis" by recreating classic legal experimental work. His current projects focus on whether (and how) to regulate nondisclosure agreements about sexual harassment, and the contractual documents governing Initial Coin Offerings. Before joining the legal academy, Hoffman was a litigation associate at Cravath, Swaine & Moore LLP in New York City and a law clerk for Judge Norma L. Shapiro of the U.S. District Court for the Eastern District of Pennsylvania. Hoffman won the Harvey Levin Award for Teaching Excellence in 2018.

Expertise

Contracts, Social Science and the Law, Law and Economics, Behavioral Economics, Corporate and Financial Law, Legal Process and Dispute Resolution

Education

JD 2001 Harvard Law School
BA 1998 Yale University

Courses Taught

- Contracts
- Advanced Topics in Contracts
- Corporations

Representative Publications

From Promise to Form: How Contracting Online Changes Consumers, 91 N.Y.U. L. REV. 1595 (2016).

"Ideology" or "Situation Sense"? An Experimental Investigation of Motivated Reasoning and Professional Judgment, 164 U. PA. L. REV. 349 (2016) (with Dan M. Kahan et al.).

The Common Sense of Contract Formation, 67 STAN. L. REV. 1269 (2015) (with Tess Wilkinson-Ryan).

The Psychology of Contract Precautions, 80 U. CHI. L. REV. 395 (2013) (with Tess Wilkinson-Ryan).

Whose Eyes Are You Going to Believe? Scott v. Harris and the Perils of Cognitive Illiberalism, 122 HARV. L. REV. 837 (2009) (with Dan M. Kahan & Donald Braman).

Recent Publications

Relational Contracts of Adhesion, 85 U. CHI. L. REV. 1395 (2018).

The Use and Reliability of Federal Nature of Suit Codes, 2012 MICH. ST. L. REV. 997.

Are There Really "Plenty of Shapiros Out There"? A Comment on the Courage of Norma L. Shapiro, in EDITED VOLUME OF ESSAYS ON NOTABLE AMERICAN JUDGES (Kevin Peppers, ed., Virginia forthcoming 2018).

Law and Psychology Grows Up, Goes Online, and Replicates, 15 J. EMPIRICAL LEGAL STUD. 320 (2018) (with Krin Irvine & Tess Wilkinson-Ryan).

Contract Consideration and Behavior, 85 GEO. WASH. L. REV. 351 (2017) (with Zev J. Eigen).



HERBERT HOVENKAMP

"It's all about consumers."

Herbert Hovenkamp

James G. Dinan University Professor

Herbert Hovenkamp is a recognized expert and prolific author in the areas of antitrust law and American legal history. He holds a joint appointment between Penn Law and the Wharton School. Prior to that, Hovenkamp was a Professor of Law at the University of Iowa, and before that at the University of California, Hastings College of the Law. He is a fellow of the American Academy of Arts and Sciences.

Hovenkamp has been the Rockefeller Foundation Fellow, Harvard Law School; Fellow of the American Council of Learned Societies, Harvard Law School; Faculty Scholar, University of Iowa; Presidential Lecturer, University of Iowa; and the recipient of the University of Iowa Collegiate Teaching Award.

Expertise

Antitrust, Intellectual Property, and American Legal History

Secondary Appointments

Legal Studies and Business Ethics, Wharton School

Education

JD 1978 University of Texas School of Law

PhD 1976, MA 1971 University of Texas

BA 1969 Calvin College

Courses Taught

- Antitrust
- Law and Commerce in American History
- The Constitution and Free Enterprise

Representative Publications

ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION (New York: Kluwer/Aspen, with the late Phillip E. Areeda & the late Donald F. Turner) (21 vols., 3d & 4th eds. + annual supplement + end matter volume, 1978-2018) (vol. 2A with Roger D. Blair & Christine Piette Durrance).

THE OPENING OF AMERICAN LAW: NEOCLASSICAL LEGAL THOUGHT, 1870-1970 (Oxford 2015).

FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE (West Academic Hornbook Series, 5th ed., 2015)

The Emergence of Classical Patent Law, 58 ARIZ. L. REV. 263 (2016).

Antitrust and Information Technologies, 68 FLA. L. REV. 419 (2016).

Recent Publications

Horizontal Mergers, Market Structure, and Burdens of Proof, 127 YALE L.J. 1996 (2018) (with Carl Shapiro).

Horizontal Shareholding and Antitrust Policy, 127 YALE L.J. 2026 (2018) (with Fiona Scott Morton).

Whatever Did Happen to the Antitrust Movement?, 93 NOTRE DAME L. REV. (forthcoming 2018).

Anticompetitive Mergers in Labor Markets, 93 IND. L.J. (forthcoming 2018) (with Ioana Marinescu).

Prophylactic Merger Policy, 69 HASTINGS L.J. (forthcoming 2018).

Antitrust and the Design of Production, 103 CORNELL L. REV. 1155 (2018).

Reasonable Patent Exhaustion, 35 YALE J. ON REG. 513 (2018).

The Rule of Reason, 70 FLA. L. REV. 81 (2018).

Progressive Antitrust, 2018 U. ILL. L. REV. 71.

The Progressives: Racism and Public Law, 59 ARIZ. L. REV. 947 (2017).

Antitrust Policy and Inequality of Wealth, CPI ANTITRUST CHRON., October 2017.

Appraising Merger Efficiencies, 24 GEO. MASON L. REV. 703 (2017).

Patent Pools and Related Technology Sharing, in CAMBRIDGE HANDBOOK OF ANTITRUST, INTELLECTUAL PROPERTY, AND HIGH TECH 358 (Roger D. Blair & D. Daniel Sokol eds., Cambridge 2017) (with Erik N. Hovenkamp).

Appraising the Progressive State, 102 IOWA L. REV. 1063 (2017).

Buying Monopoly: Antitrust Limits on Damages for Externally Acquired Patents, 25 TEX. INTELL. PROP. L.J. 39 (2017) (with Erik N. Hovenkamp).

The NCAA and the Rule of Reason, 52 REV. INDUS. ORG. 323 (2017).



GIDEON PARCHOMOVSKY

“Together with a coauthor, I am working on a series of articles in which we explore the scope of the public domain in intellectual property and real property, in particular mechanisms for expanding the public domain and legal situations in which it is not possible to maintain a public domain.”

Gideon Parchomovsky

Robert G. Fuller, Jr. Professor of Law

Gideon Parchomovsky specializes in intellectual property, property law, and cyber law. Parchomovsky has already made significant contributions to the field through his wide-ranging scholarship, having written numerous articles for major law reviews on property and liability rules, insider trading, trademarks, domain names, and patents. Most recently, he has been advocating the need for a comprehensive property theory and the need to introduce a value-oriented theory. Parchomovsky has received the A. Leo Levin Award presented to the best teacher of a first-year course.

Expertise

Intellectual Property, Property Law, Information Law

Education

JSD 1998 Yale Law School

LLM 1995 University of California, Berkeley

LLB 1993 Hebrew University of Jerusalem

Courses Taught

- Property Law
- Copyright Law
- Impact of the Internet on Copyright and Patent Law

Representative Publications

The Dual-Grant Theory of Fair Use, 83 U. CHI. L. REV. 1051 (2016) (with Abraham Bell).

Reinventing Copyright and Patent, 113 MICH. L. REV. 231 (2014) (with Abraham Bell).

Intellectual Property Defenses, 113 COLUM. L. REV. 1483 (2013) (with Alex Stein).

Law and the Boundaries of Technology-Intensive Firms, 157 U. PA. L. REV. 1649 (2009) (with Oren Bar-Gill).

Tradable Patent Rights, 60 STAN. L. REV. 863 (2007) (with Ian Ayres).

Recent Publications

Toward a Horizontal Fiduciary Duty in Corporate Law, 102 CORNELL L. REV. (forthcoming 2018) (with Asaf Eckstein).

Property as the Right to Be Left Alone (Penn Inst. for Econ. Res. Working Paper No. 18-9 2018) (with Abraham Bell).

Partial Takings, 117 COLUM. L. REV. 2043 (2017) (with Abraham Bell).

The Value of the Right to Exclude: An Empirical Assessment, 165 U. PA. L. REV. 917 (2017) (with Jonathan Klick).

Empowering Individual Plaintiffs, 102 CORNELL L. REV. 1319 (2017).



R. POLK WAGNER

“The past year has been full of high-stakes litigation in the patent realm, including cases such as *TC Heartland*, *Waymo v. Uber*, and the final saga of *Apple v. Samsung*. These cases will have long term implications on venue, claim construction, damages, and other broad strokes themes in patent law for years to come. In addition to monitoring the constant flux in patent law, my research focuses on continuing to explore the Federal Circuit’s claim construction jurisprudence, as well as novel approaches to measuring patent value.”

R. Polk Wagner

Professor of Law; Deputy Dean

Polk Wagner focuses his research and teaching on property law and policy, with a special interest in patent law. He has written over twenty articles on topics ranging from an empirical analysis of judicial decision making in patent law to the First Amendment status of software programs. He is a frequent lecturer on intellectual property topics worldwide.

Prior to joining the Penn Law faculty in 2000, Wagner served as a clerk to Judge Raymond C. Clevenger III of the U.S. Court of Appeals for the Federal Circuit. He was the 1994-95 Roger M. Jones Fellow at the London School of Economics.

Expertise

Patent Law, Copyright Law, Trademark Law, Cyberlaw, Intellectual Property Policy, Law and Technology, Property Law

Education

JD 1998 Stanford Law School
BSE 1993 University of Michigan
BS 1993 College of Charleston

Courses Taught

- Patent Law
- Introduction to Intellectual Property Law and Policy
- Patent Law Appellate Advocacy
- Property Law

Representative Publications

Poisoning the Next Apple: How the America Invents Act Harms Inventors, 65 STAN. L. REV. 417 (2013) (with David S. Abrams).

Did Phillips Change Anything? Empirical Analysis of the Federal Circuit's Claim Construction Doctrine, In INTELLECTUAL PROPERTY AND THE COMMON LAW 123 (Shyamkrishna Balganesh ed., Cambridge 2013) (with Lee Petherbridge).

Understanding Patent Quality Mechanisms, 157 U. PA. L. REV. 1410 (2009).

The Federal Circuit and Patentability: An Empirical Assessment of the Law of Obviousness, 85 TEX. L. REV. 2051 (2007) (with Lee Petherbridge).

Patent Portfolios, 154 U. PA. L. REV. 1 (2005) (with Gideon Parchomovsky).

Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance, 152 U. PA. L. REV. 1105 (2004) (with Lee Petherbridge).

Information Wants to Be Free: Intellectual Property and the Mythologies of Control, 103 COLUM. L. REV. 995 (2003).

Recent Publications

Teva and the Process of Claim Construction, 70 FLA. L. REV. 379 (2018) (with Lee Petherbridge).

**TESS WILKINSON-RYAN**

"When courts consider online contracts, they often take pains to insist that technology is not disrupting contract law. 'Promises become binding when there is a meeting of the minds and consideration is exchanged. So it was at King's Bench in common law England; so it was under the common law in the American colonies; so it was through more than two centuries of jurisprudence in this country; and so it is today,' declares the court in *Specht vs. Netscape*. 'Assent may be registered by a signature, a handshake, or a click of a computer mouse transmitted across the invisible ether of the Internet.

"Protestations like these overlook the role of social and moral cognition in legal change. One way to think about my role as a moral psychologist on a law faculty is that I am interested in how technology affects the way that humans interact with or understand the legal system. To me the most important feature of online contracting is not the technology per se, but rather the extraordinary ubiquity of fine print in the digital world—a place that most of us spend most of our time. I'd contend that all those unread terms and conditions are teaching users implicit lessons about contract law, lessons that have immediate consequences for individual decision-making and, ultimately, real implications for the doctrine of assent."

Tess Wilkinson-Ryan

Professor of Law and Psychology; Deputy Dean

Tess Wilkinson-Ryan studies the psychology of legal decision-making. Her research addresses the role of moral judgment in legal decision-making, with a particular focus on private contracts and negotiations. She uses experimental methods from psychology and behavioral economics to ask how people draw on their moral intuitions to motivate or inform legal choices. Recent research topics include statutory damages in copyright law, online contracting, and retirement investing. In 2012, Wilkinson-Ryan was awarded the A. Leo Levin Award for Excellence in an Introductory Course, and in 2014 the graduating class chose her as the recipient of the Harvey Levin Memorial Award for Teaching Excellence.

Expertise

Contracts, Behavioral Economics, Law and Social Sciences

Education

PhD 2008, MA 2006, JD 2005 University of Pennsylvania
BA 1999 Harvard University

Courses Taught

- Contracts
- Psychological Analysis of Legal-Decision Making
- Gender, Psychology, and Law

Representative Publications

The Common Sense of Contract Formation, 67 STAN. L. REV. 1269 (2015) (with David A. Hoffman).

Judging Similarity, 100 IOWA L. REV. 267 (2014) (with Shyamkrishna Balganesh & Irina Manta).

A Psychological Account of Consent to Fine Print, 99 IOWA L. REV. 101 (2014).

Transferring Trust: Reciprocity Norms and Assignment of Contract, 9 J. EMPIRICAL LEGAL STUD. 511 (2012).

Do Liquidated Damages Encourage Breach? A Psychological Experiment, 108 MICH. L. REV. 633 (2010).

Recent Publications

Law and Psychology Grows Up, Goes Online, and Replicates, 15 J. EMPIRICAL LEGAL STUD. 320 (2018) (with Krin Irvine & David A. Hoffman).

The Perverse Consequences of Disclosing Standard Terms, 103 CORNELL L. REV. 117 (2017).



CHRISTOPHER YOO

“One aspect of my favorite current research projects is the comparative analysis of due process that colleagues at other universities and I are conducting in antitrust enforcement in China, Europe, and the U.S. I have been particularly gratified by the interest this project has generated among enforcement officials in the U.S. and abroad and in international organizations such as the International Competition Network and the OECD.”

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science; Founding Director of CTIC

Christopher Yoo has emerged as one of the nation's leading authorities on law and technology. Recognized as one of the most cited scholars in administrative and regulatory law as well as intellectual property, his major research projects include studying innovative ways to connect more people to the Internet; using technological principles to inform how the law can promote optimal interoperability; protecting privacy and security for autonomous vehicles, medical devices, and the Internet's routing architecture; comparing antitrust enforcement practices in China, Europe, and the U.S.; copyright theory; and network neutrality. The author of more than 100 scholarly works, Yoo testifies frequently before Congress, the Federal Communications Commission, the Federal Trade Commission, the U.S. Department of Justice, and foreign governments. Prior to joining the academy, Yoo served as a clerk to Justice Anthony M. Kennedy of the Supreme Court of the United States and Judge A. Raymond Randolph L'69 of the U.S. Court of Appeals for the D.C. Circuit.

Expertise

Communications Law, Antitrust, Intellectual Property, Copyright, Privacy Law, Mass Media Law, Law and Technology, Government Regulation, Regulated Industries, Electronic Commerce, Information Law, Presidential Power, Separation of Powers, Constitutional Law, First Amendment, Free Speech, Patent Law, Law of War

Secondary Appointments

Annenberg School for Communication
Computer and Information Science Department, School of Engineering and Applied Science

Education

JD 1995 Northwestern University Pritzker School of Law
MBA 1991 Anderson School at the University of California, Los Angeles
AB 1986 Harvard University

Courses Taught

- Internet Law
- Telecommunications Law
- Privacy
- Antitrust
- Technology and Policy
- Introduction to Intellectual Property
- Copyright Theory

Representative Publications

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

NETWORKS IN TELECOMMUNICATIONS: ECONOMICS AND LAW (Cambridge 2009) (with Daniel F. Spulber).

Modularity Theory and Internet Policy, 2016 U. ILL. L. REV. 1 (2016).

Technological Determinism and Its Discontents, 127 HARV. L. REV. 914 (2014) (book review).

Copyright and Product Differentiation, 79 N.Y.U. L. REV. 212 (2004).

Recent Publications

Product Differentiation, in 1 RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW (Ben Depoorter & Peter Menell eds., Edward Elgar forthcoming 2019).

The Transformation of Transformative Use, 1 J.L. & INNOVATION (forthcoming 2019).

Copyright and Personhood Revisited, 2018 U. ILL. L. REV. (forthcoming 2019).

Antitrust Enforcement in a Global Context: The U.S. Perspective, in TRANSPARENCY AND DUE PROCESS IN ANTITRUST PROCEDURAL FAIRNESS (D. Daniel Sokol ed., Oxford forthcoming 2019) (with Hendrik Wendland).

Network Neutrality and 5G, in THE FUTURE OF THE INTERNET – INNOVATION, INTEGRATION AND SUSTAINABILITY (Guenter Knieps & Volcker Stocker eds., forthcoming 2019).

James Wilson as the Architect of the American Presidency, 16 GEO. J.L. & PUB. POL'Y (forthcoming 2019).

Paul Baran, Network Theory, and the Past, Present, and Future of the Internet, 17 COLO. TECH. L.J. (forthcoming 2018).

Self-Actualization and the Need to Create as a Limit on Copyright, in COMPARATIVE ASPECTS OF LIMITATIONS AND EXCEPTIONS IN COPYRIGHT LAW (Shyamkrishna Balganesh, Wee Loon Ng-Loy, & Haochen Sun eds., Cambridge forthcoming 2019).

"Everything Not Forbidden Is Permitted": A U.S. Perspective on Regulation and Innovation, 9 J.L. & ECON. REG. (forthcoming 2019).

Wilson as Architect of the Presidency, 16 GEO. J.L. & PUB. POL'Y (forthcoming 2019).

"Everything Not Forbidden Is Permitted": A U.S. Perspective on Regulation and Innovation, 9 J.L. & ECON. REG. (forthcoming 2019).

Common Carriage's Domain, 34 YALE J. ON REG. 991 (2018).

Hipster Antitrust: New Bottles, Same Old W(h)ine?, CPI ANTITRUST CHRONICLE, April 2018.

Bridges II: The Law-STEM Alliance & Next Generation Innovation, 112 NW. U. L. REV. ONLINE 173 (2018).

An Unsung Success Story: A Forty-Year Retrospective on U.S. Communications Policy, 41 TELECOMM. POL'Y 891 (2017).

Avoiding the Pitfalls of Net Uniformity: Zero Rating and Nondiscrimination, 46 REV. INDUS. ORG. 509 (2017).

Wireless Network Neutrality: Technological Challenges and Policy Implications, 31 BERKELEY TECH. L.J. 1409 (2017).

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).

A Financial Assessment of Municipal Fiber in the U.S., PENN WHARTON PUB. POL'Y INITIATIVE ISSUE BRIEF, May 2017 (with Timothy Pfenninger).

Evidence-Based Research on Internet Connectivity: A Prerequisite for Effective Policymaking, IEEE INTERNET POL'Y LETTER, April 2017 (with Sharada Srinivasan).

The Fate of the FCC's Privacy Rule: A Chat with Law Professor Christopher Yoo, Forbes.com, February 8, 2017.



David Aaron Wishnick

Academic Fellow

David Wishnick's scholarship focuses on the interactions between law and technology in shaping commercial transactions and business forms. Before joining the University of Pennsylvania Law School, Wishnick practiced at Jenner & Block LLP in Washington, D.C., where he advised clients in the finance and communications industries and, in a multi-year engagement, participated in the monitorship of a large bank after its settlement with tax and securities regulators. Prior to joining Jenner, Wishnick clerked for Judge Guido Calabresi of the U.S. Court of Appeals for the Second Circuit and Judge Thomas B. Griffith of the U.S. Court of Appeals for the D.C. Circuit.

Expertise

Law and Technology, Banking, Commercial Law, Contracts, Corporate and Financial Law

Education

JD 2012 Yale Law School
AB 2007 Brown University

Courses Taught

- The Fintech Challenge

Representative Publications

Corporate Purposes in a Free Enterprise System: A Comment on eBay v. Newmark, 121 YALE L.J. 2032 (2012).

Recent Publications

Coin-Operated Capitalism: A Detailed Look at Initial Coin Offerings 119 COLUM. L. REV. (forthcoming 2019) (with Shaanan Cohn, David A. Hoffman, & Jeremy Sklaroff)

Innovation in Payment Forms: Between Law, Technology, and Politics (working paper)



Anita Allen

Henry R. Silverman Professor of Law and Professor of Philosophy; Vice Provost for Faculty

Anita Allen is an expert on privacy law, the philosophy of privacy, bioethics, and contemporary values, and is recognized for scholarship about legal philosophy, women's rights, and race relations. She was the first African American woman to hold both a PhD in philosophy and a law degree. She was an Associate Attorney with Cravath, Swaine and Moore. She was elected to the National Academy of Medicine in 2016. In 2010 she was appointed by President Obama to the Presidential Commission for the Study of Bioethical Issues. Allen, who has published more than a hundred scholarly articles, book chapters and essays, has also contributed to popular magazines, newspapers and blogs, and has frequently appeared on nationally broadcast television and radio programs. Allen is active as a member of editorial, advisory, and charity boards, and in professional organizations relating to her expertise in law, philosophy and health care. She is a member of the NIH Precision Medicine IRB and the Board of Directors of the WCG Foundation.

Expertise

Privacy Law, Data Protection, Bioethics, Ethics, Jurisprudence, Torts, Legal Ethics, Constitutional Law, Health Law, Philosophy of Law, Non-Profit Organizations, Gender Studies, Political Philosophy, Race Relations, Sexuality and the Law, Feminism

Secondary Appointments

Philosophy Department, School of Arts and Sciences

Education

JD 1984 Harvard Law School
PhD, MA 1980 University of Michigan
BA 1974 New College of Florida

Courses Taught

- Privacy Law
- Torts
- Introduction to Ethics
- Bioethics and the Law of Mental Health
- African American Philosophy Since 1960
- Bioethics of Reproduction
- Mental Health and Moral Life

Representative Publications

PRIVACY LAW AND SOCIETY (3d ed., ThomsonReuters/West 2016).

UNPOPULAR PRIVACY: WHAT MUST WE HIDE? (Oxford 2011).

Protecting One's Own Privacy in a Big Data Economy, 130 HARV. L. REV. F. 71 (2016).

Cognitive Enhancement and Beyond: Recommendations from the Bioethics Commission, 19 TRENDS COGNITIVE SCI. 549 (2015) (with Nicolle K. Strand).

Privacy Law: Positive Theory and Normative Practice, 126 HARV. L. REV. F. 241 (2013).



Tom Baker

William Maul Measey Professor of Law and Health Sciences

Tom Baker, a preeminent scholar in insurance law, explores insurance, risk, and responsibility using methods and perspectives drawn from economics, sociology, psychology, and history. His research on health insurance exchanges is informing the development of decision tools to improve consumer choice. His recent article, "Regulating Robo Advice Across the Financial Services Industry," urges insurance, banking, and securities industry regulators to cooperate in developing a regulatory trajectory for automated financial advice.

He is the Reporter for the American Law Institute's Restatement of the Law Liability Insurance, Director of the Health Insurance Exchange Research Group of Penn's Leonard Davis Institute of Health Economics, and a co-founder of Picwell, a data analytics company that builds tools to match people to insurance plans. In August 2013, he received the Robert B. McKay Award, a lifetime scholarly achievement award given by the Tort Trial and Insurance Practice Section of the American Bar Association.

Expertise

Insurance Law and Policy, Torts, Health Care Policy, Health Economics, Law and Technology, Financial Regulation, Behavioral Economics, Law and Economics, Litigation, Entrepreneurship, Law and Society, Contracts

Secondary Appointments

Business Economics and Public Policy Department, Wharton School

Education

JD 1986, AB 1982 Harvard University

Courses Taught

- Torts
- Fintech Challenge
- Insurance Law and Policy
- Financial Regulation Law and Policy
- Regulation of Health Insurance Markets
- Risk Management
- Insurance Insolvency
- Liability and Insurance

Representative Publications

ENSURING CORPORATE MISCONDUCT: HOW LIABILITY INSURANCE UNDERMINES SHAREHOLDER LITIGATION (Univ. of Chicago 2010) (with Sean J. Griffith).

INSURANCE LAW AND POLICY: CASES, MATERIALS AND PROBLEMS (Aspen 2003; 2d ed. 2008; 3d ed. 2013).

THE MEDICAL MALPRACTICE MYTH (Univ. of Chicago 2005) (paperback 2007).

EMBRACING RISK: THE CHANGING CULTURE OF INSURANCE AND RESPONSIBILITY (Tom Baker & Jonathan Simon eds., Univ. of Chicago 2002).

Regulating Robo Advice Across the Financial Services Industry, 103 IOWA L. REV. 713 (2018) (with Benedict G.C. Dellaert).



Cary Coglianese

Edward B. Shils Professor of Law and Professor of Political Science; Director, Penn Program on Regulation

Cary Coglianese specializes in the study of regulation and regulatory processes, with an emphasis on the empirical evaluation of alternative regulatory strategies and the role of public participation, negotiation, and business-government relations in policymaking. He is a co-chair of the American Bar Association's administrative law section committee on e-government, past co-chair of the section's committee on rulemaking, and a past member of the section's Council. He currently serves as a member of a committee of the National Academies of Sciences, Engineering, and Medicine studying performance-based safety regulation and of an Aspen Institute dialogue on energy policy governance. He has served as a consultant to the Administrative Conference of the United States, Environment Canada, the Organization for Economic Cooperation and Development, the U.S. Department of Commerce, the U.S. Department of Transportation, and the U.S. Environmental Protection Agency.

Expertise

Administrative Law, Government Regulation, Environmental Law

Secondary Appointments

Political Science Department, School of Arts and Sciences

Education

PhD 1994, MPP 1991, JD 1991 University of Michigan

AB 1985 College of Idaho

Courses Taught

- Administrative Law
- Environmental Law
- Policy Analysis
- Regulatory Law and Policy
- Advanced Regulatory Law and Policy

Representative Publications

ACHIEVING REGULATORY EXCELLENCE (Cary Coglianese ed., Brookings Institution 2016).

DOES REGULATION KILL JOBS? (Cary Coglianese, Adam Finkel, & Chris Carrigan eds., Univ. of Pennsylvania 2013)

REGULATORY BREAKDOWN? THE CRISIS OF CONFIDENCE IN U.S. REGULATION (Cary Coglianese ed., Univ. of Pennsylvania 2012).

Regulating by Robot: Administrative Decision-Making in the Machine Learning Era, 105 GEO. L.J. 1147 (2017) (with David Lehr).

Separation of Powers Legitimacy: An Empirical Inquiry into Norms About Executive Power, 164 U. PA. L. REV. 1869 (2016) (with Kristin Firth).



Jonathan Klick

Professor of Law

Jonathan Klick's work focuses on identifying the causal effects of laws and regulations on individual behavior using cutting-edge econometric tools. Specific topics addressed by Klick's work include the relationship between abortion access and risky sex, the health behaviors of diabetics, the effect of police on crime, addiction as rational choice, how liability exposure affects the labor market for physicians, as well as a host of other issues. His scholarship has been published in numerous peer-reviewed economics journals, including the *Journal of Economic Perspectives*, *Journal of Law & Economics*, *Journal of Law, Economics, and Organization*, and *Journal of Legal Studies*. He has also published papers in the *Stanford Law Review*, *Columbia Law Review*, and *University of Chicago Law Review*. He also contributes to CTIC's work on comparative competition law.

Expertise

Law and Economics, Health Care Policy and Regulation, Criminal Law, Labor Economics, Mental Health Law, Product Liability Litigation, Regulated Industries

Education

JD 2003, PhD 2002 George Mason University

MS 1999 University of Maryland

BS 1997 Villanova University

Courses Taught

- Antitrust
- Torts
- Statistics for Lawyers
- Empirical Law and Economics

Representative Publications

Empirical Law and Economics, in 1 OXFORD HANDBOOK OF LAW AND ECONOMICS: METHODOLOGY AND CONCEPTS 29 (Francesco Parisi ed., Oxford 2017) (with Jonah B. Gelbach).

The Value of the Right to Exclude: An Empirical Assessment, 165 U. PA. L. REV. 917 (2017) (with Gideon Parchomovsky).

Mobile Phones and Crime Deterrence: An Underappreciated Link, in RESEARCH HANDBOOK ON THE ECONOMICS OF CRIMINAL LAW 243 (Alon Harel & Keith N. Hylton eds., Edward Elgar 2012) (with John MacDonald & Thomas Stratmann).

Why Aren't Regulation and Litigation Substitutes?: An Examination of the Capture Hypothesis, in REGULATORY BREAKDOWN: THE CRISIS OF CONFIDENCE IN U.S. REGULATION 227 (Cary Coglianese ed., Univ. of Pennsylvania 2012) (with Eric Helland).

Social Networks, Self Denial, and Median Preferences: Conformity as an Evolutionary Strategy, 37 J. SOCIO-ECON. 1319(2008) (with Francesco Parisi).



Seth Kreimer

Kenneth W. Gemmill Professor of Law

Seth Kreimer's first article, "Allocational Sanctions: The Problem of Negative Rights in a Positive State," set the terms for a generation of discussion of unconstitutional conditions on public benefits. His subsequent work has shaped analysis of privacy, abortion regulation, assisted suicide, and same sex marriage. He has explored the implications of DNA testing in criminal justice, free speech on the Internet, the Freedom of Information Act, and the abuses of the "war on terror." Kreimer has also represented plaintiffs in an array of constitutional litigation.

Expertise

Constitutional Law, Civil Rights Law, Constitutional Litigation

Education

JD 1977, BA 1974 Yale University

Courses Taught

- Constitutional Law
- Constitutional Litigation
- Complex Litigation
- First Amendment
- Individual Rights and Health Care
- Privacy and Disclosure

Representative Publications

The Ecology of Transparency Reloaded, in *TROUBLING TRANSPARENCY: THE HISTORY AND FUTURE OF FREEDOM OF INFORMATION* (David Pozen & Michael Schudson eds., Columbia 2018).

"Spooky Action at a Distance": Intangible Injury in Fact in the Information Age, 18 U. PA. J. CONST. L. 745 (2016).

Pervasive Image Capture and the First Amendment: Memory, Discourse, and the Right to Record, 159 U. PA. L. REV. 335 (2011).

Censorship by Proxy: The First Amendment, Internet Intermediaries and the Problem of the Weakest Link, 155 U. PA. L. REV. 11 (2006).

Technologies of Protest: Insurgent Social Movements and the First Amendment in the Era of the Internet, 150 U. PA. L. REV. 119 (2001).



Matthew Blaze

Associate Professor of Computer and Information Science,
School of Engineering and Applied Science

Matt Blaze's research focuses on cryptography and its applications, trust management, human scale security, secure systems design, and networking and distributed computing. He is particularly interested in security technology with bearing on public policy issues, including cryptography policy (key escrow), wiretapping and surveillance, and the security of electronic voting systems.

Expertise

Computer Security, Distributed Systems

Education

PhD 1993, MA 1989 Princeton University

MS 1988 Columbia University

BS 1986 City University of New York (Hunter College)



Peter Decherney

Professor of English and Cinema Studies, School of Arts and Sciences

Peter Decherney's research focuses primarily on the law's impact on film and media, having authored or edited six books on the history of copyright and Hollywood. He is the Faculty Director of Penn's Online Learning Initiative and the Director of Penn's Cinema and Media Studies Program. Decherney is also the co-editor of the journal *Critical Studies in Media Communication* and has testified before the Copyright Office of the United States and filed amicus briefs in several cases, including the Supreme Court Case of *Golan v. Holder*. Decherney has been an Academy of Motion Picture Arts and Sciences Scholar, a fellow of the American Council of Learned Societies, and a U.S. State Department Arts Envoy to Myanmar. He has won multiple teaching awards and is a *Forbes.com* contributor.

Expertise

Cinema and Media Studies

Secondary Appointments

Annenberg School for Communication

Education

PhD 2000 New York University

BA 1993 Vassar College



Gerald Faulhaber

Professor Emeritus of Business Economics and Public Policy, Wharton School

Gerald R. Faulhaber served as Chief Economist of the Federal Communications Commission in 2000-01. His research focuses on the microeconomics, management, and public policy aspects of technology and telecommunications firms. Faulhaber's current research is wireless telecommunications, cybersecurity and the Internet of Things, public policy and the Internet, and the political economy of regulation. He has also written on file sharing and music copyright, public safety radio, and network neutrality.

Expertise

Applied Microeconomics, Industrial Organization, Network Neutrality for the Internet, File Sharing and Fair Use Copyright, Regulation, Spectrum Policy for Wireless Telecommunications, Telecommunications

Education

PhD 1975, MA 1974 Princeton University
MS 1964 New York University
AB 1962 Haverford College



Joseph Harrington

Patrick T. Harker Professor of Business Economics and Public Policy, Wharton School

Joseph Harrington has published more than 90 articles and his research has appeared in many leading journals including the *American Economic Review*, *Journal of Political Economy*, *Econometrica*, *Management Science*, and *American Journal of Sociology*. His research focuses on collusion and cartels, with the objectives of understanding observed collusive practices, developing observable markers of collusion, and designing competition law and policy to detect and deter collusion. This work is often at the interface of theory and practice and has been presented before competition authorities throughout the world including those of Chile, European Union, Japan, South Africa, and the United States. He has also published two textbooks, *Economics of Regulation and Antitrust* (5th edition, MIT Press 2018) (with David Sappington) and *Games, Strategies, and Decision Making* (2d ed., Worth Publishers 2015), and a monograph, *The Theory of Collusion and Competition Policy* (MIT Press, 2017).

Expertise

Industrial Organization, Microeconomic Theory

Education

PhD 1984 Duke University
BA 1979 University of Virginia



Michael Kearns

National Center Professor of Management and Technology, Computer and Information Science, School of Engineering and Applied Science

Michael Kearns's primary research interests are in machine learning, probabilistic artificial intelligence, algorithmic game theory, and computational finance. He integrates problems from these areas with methods from theoretical computer science and related disciplines. While the majority of his work is mathematical in nature, he has also participated in a variety of systems and experimental work, including spoken dialogue systems, software agents, and most recently, human-subject experiments in strategic and economic interaction.

Expertise

Machine Learning, Algorithms and Complexity

Secondary Appointments

Economics Department, School of Arts and Sciences
Statistics Department; Operations, Information and Decisions
Department, The Wharton School

Education

PhD 1989 Harvard University
BS 1985 University of California, Berkeley

Aviv Nevo

George A. Weiss and Lydia Bravo Weiss University Professor, Professor of Marketing, Wharton School; Professor of Economics, School of Arts and Sciences

Aviv Nevo draws from his experience across academic, governmental, and corporate sectors to address pressing real-world issues, opening pathways for a broader understanding of national and global economies. His past research includes topics in the areas of health economics, health care, telecommunications, and real estate brokerages, as well as questions involving the demand for packaged goods and its implications for mergers and market power. Nevo served as Chief Economist in the Antitrust Division of the Department of Justice, advising attorneys on merger, civil, and criminal investigations in addition to leading the division's Economic Analysis Group.

Expertise

Industrial Organization, Econometrics, Marketing, Antitrust

Education

PhD 1997, AM 1994 Harvard University
BSc 1991 Tel Aviv University



Katja Seim

Associate Professor of Business Economics and Public Policy, Wharton School

Katja Seim specializes in applied microeconomics and industrial organization. Her research focuses on two areas. She studies how firms make product introduction and entry decisions, how they assess the competitive implications of different market entry strategies, and how public policies and regulatory interventions shape their choices. A second focus of her research is nonlinear pricing, primarily in the context of communications and information industries. Seim spent the 2016-17 academic year as the Chief Economist of the Federal Communications Commission.

Expertise

Applied Microeconomics, Industrial Organization, Entry, Information Goods, Nonlinear Pricing

Education

PhD 2001 Yale University
BA 1995 Franklin & Marshall College



Joseph Turow

Robert Lewis Shayon Professor of Communication; Associate Dean for Graduate Studies, Annenberg School for Communication

Joseph Turow's research focuses on digital cultural industries, especially at the intersection of the Internet, marketing, and society, as well as database marketing, media and privacy, digital out-of-home media, the process of innovation in the mass media, and the relationship between media and the medical system. His most recent privacy report was covered by the New York Times. Turow is an elected Fellow of the International Communication Association and was presented with a Distinguished Scholar Award by the National Communication Association. His most recent book is titled *The Aisles Have Eyes: How Retailers Track Your Shopping, Strip Your Privacy, and Define Your Power* (Yale University Press 2017).

Expertise

Mass Media Policy, Social Impact of Digital Marketing on Society and Media, Sociological Theory

Education

PhD 1976, MA 1973, BA 1971 University of Pennsylvania



Kevin Werbach

Professor of Legal Studies and Business Ethics, Wharton School

Kevin Werbach's research focuses on the future of telecommunications policy in a converged digital broadband world; the legal and ethical implications of big data and business analytics; blockchain and distributed ledger technologies; and gamification (applying digital game design techniques to business). He co-led the review of the Federal Communications Commission (FCC) for the Obama transition team, served as Counsel for New Technology Policy at the FCC during the Clinton Administration, and created the Supernova executive technology conference. Over 400,000 students worldwide have registered for his pioneering Coursera massively open online course (MOOC).

Expertise

Internet Policy, Telecommunications Regulation, Law and Ethics of Big Data, Gamification, Blockchain

Education

JD 1994 Harvard Law School

BA 1991 University of California, Berkeley





Thomas Fetzer

Dean Emeritus and Professor of Law, School of Law and Economics,
University of Mannheim

Thomas Fetzer holds a Chair of Public Law, Regulation and Taxation at the University of Mannheim Law School, Germany. He is Academic Director of both the Mannheim Centre for Competition and Innovation (MaCCI) and the Leibniz ScienceCampus Mannheim Taxation (MaTax). He is also an Adjunct Professor at the Mannheim Business School.

Education

Habilitation 2009, PhD 2000 University of Mannheim
LLM 2003 Vanderbilt Law School



Osagie Imasogie

Senior Managing Partner, PIPV Capital

Osagie Imasogie is the co-founder of PIPV Capital, an IP-based merchant bank. He has over thirty years of experience in law, finance, business management, healthcare, and the pharmaceutical industry. He currently teaches a course entitled Intellectual Property and National Economy Value Creation as an adjunct professor at the University of Pennsylvania Law School, where he is a member of the Board of Overseers. He is also a member of the Board of Trustees of the University of Pennsylvania.

Education

LLM 1985 University of Pennsylvania
LLM 1984 London School of Economics and Political Science
BL 1981 Nigeria Law School
LLB 1980 University of Ife, Nigeria



The Honorable Kent Jordan

U.S. Court of Appeals for the Third Circuit

In 2006, Kent Jordan was appointed by President George W. Bush to serve as United States Circuit Judge for the Third Circuit. Prior to that appointment, Judge Jordan served as a United States District Judge for the District of Delaware from 2002 to 2006. He was a law clerk for Judge James L. Latchum, United States District Court for the District of Delaware, and an Assistant United States Attorney for the District of Delaware, serving as Civil Chief of that office in 1991 and 1992. Prior to taking the bench, Judge Jordan served as an officer and as a member of the Boards of Directors of privately held businesses and was a partner in a Wilmington, Delaware law firm, with a practice focused on intellectual property, corporate law and commercial litigation.

Education

JD 1984 Georgetown University Law Center
BA 1981 Brigham Young University



Matthew Pearson

Partner, Akin Gump Strauss Hauer & Feld LLP

Matthew Pearson's area of expertise is in patent litigation in life sciences, including antibody therapies, pharmaceuticals, and biochemistry. Prior to entering private practice, Pearson clerked for two years for Judge Kent Jordan of the U.S. District Court for the District of Delaware and the U.S. Court of Appeals for the Third Circuit.

Education

JD 2005 University of Pennsylvania Law School
PhD 1999 Cornell University
BS 1993 Michigan State University



Sangyong Han

Research Fellow

Sangyong Han's primary research interests focus on the impact of technological changes on telecommunications industries, policy makers and society focusing on public interest and democracy. His research usually involves analyzing a large volume of industry and social media data, but it also includes qualitative and historical insights on the industries and government policies. He is also working on an FCC Broadband Deployment Advisory Committee project for Christopher Yoo.

While completing his Ph.D. in Mass Communications from Pennsylvania State University, he participated in various research projects including the National Science Foundation Project: A National Research Agenda for Broadband at the Institute for Information Policy. Before he came to the U.S. for his graduate studies, Han worked as a marketing director in the mobile Internet business field in Korea for six years.

Education

PhD 2016 Pennsylvania State University
MA 2009 Indiana University Bloomington



Müge Haseki

Research Fellow

Müge Haseki's research concentrates on the multi-year 1 World Connected project, which focuses on the evaluation and assessment of connectivity initiatives around the world. Her research interests include information and communication technology (ICT) adoption and use of disadvantaged and underserved communities. She has conducted research on the mobile health application use of pregnant women in Nepal, mobile phone use of newly connected communities in Rwanda, ICT practices of immigrant women entrepreneurs in New York City, broadband adoption by low-socioeconomic communities in the U.S., and social media use by media organizations in Afghanistan. She was a USAID Research and Innovation fellow at the University of Cape Town in South Africa, where she worked on an ICT for a development project. Recently, as a USAID Youlead! Fellow, she worked on the entrepreneurship development program for youth in Sri Lanka.

Education

PhD 2016 Rutgers University
MA 2008 University of Wisconsin
BA 2006 Boğaziçi University



Sharada Srinivasan

Research Fellow

Sharada Srinivasan works on the multi-year 1 World Connected project. As part of her research, she collects empirical data from grassroots-level connectivity deployments around the world to synthesize insights from them in order to drive decision making. She uses both qualitative and quantitative methods to understand the effects of Internet connectivity in underserved communities. She has conducted fieldwork in Vanuatu, Rwanda, and India. She moderates the Dynamic Coalition on Innovative Approaches to Connecting the Unconnected and led the production of the output report for the UN Internet Governance Forum's intercessional work on Connecting and Enabling the Next Billions – Phase III in 2017. Srinivasan serves on the editorial committee of the EQUALS research group on the gender digital divide, is one of the leads for the Institute of Electrical and Electronics Engineers Internet Inclusion Initiative's Evidence-based Research Working Group, and contributes to the World Economic Forum's Internet for All's data working group.

In the past, she has engaged with regulatory challenges to Internet deployment in the developing world, cybersecurity, encryption policy and network neutrality while working as an intern at the Global Public Policy Institute, Berlin and the Centre for Internet and Society, Bangalore. Srinivasan was a non-resident associate fellow at the R Street Institute, an Amazon fellow at the 10th UN Internet Governance Forum, and a Global Internet Governance Fellow at the European Summer School of Internet Governance 2015.

Education

MPP 2016 National Law School of India, Bangalore
BE 2014 Ramiah Institute of Technology, Bangalore



Caroline Olson

Managing Director

As Managing Director, Olson oversees the daily operations of the Center and has been an important part of its growth and success. She has played a key leadership role in expanding all of CTIC's programs, including our student and practitioner-oriented events, social media strategy, and providing innovative approaches to the growth and development of our staff.

Olson brings a wealth of experience in law firm administration, organizational development, talent management, and public service to her position. She served as the Director of Attorney Recruitment at Dechert LLP for seven years where she oversaw lateral and law school hiring as well as the attorney evaluation and compensation program. Before joining Dechert, Olson spent fifteen years at Morgan, Lewis & Bockius LLP where she ran global attorney integration, evaluation and compensation, and lateral and law student recruitment and worked in human resources. Prior to her joining Penn, Philadelphia Mayor Michael Nutter appointed her Deputy Managing Director to lead strategic talent management and organizational development for the City of Philadelphia.

Education

BA University of Missouri, Columbia



Center for Technology, Innovation and Competition



Ten-Year Anniversary



Ten-Year Anniversary

April 11, 2018

On April 11, 2018, CTIC celebrated its 10th Anniversary. Alumni, faculty, students, and staff gathered together to reflect proudly on what we have accomplished and to look forward with anticipation to the possibilities that the future will bring.

The festivities opened with a commemorative lunch, where current students and former students shared highlights from their time as part of Penn's law and technology program.

The celebration was capped by two panels of distinguished alumni who looked back at the last ten years of law and technology and ahead at the next ten years.

We were honored to have David Cohen L'81 give remarks at the reception following the substantive program.



Luncheon guests



Steven DeSalvo L'17



Lisa Sotto L'87, Thomas Penn L'82, Barbara McClung L'87, William Ferullo L'01, Christopher Yoo



Welcome Remarks

Dean Theodore Ruger

Lunchtime Speakers

Teddi Josephson L'19 MCIT'19

Steven DeSalvo L'17

Law Clerk to the Honorable Kent Jordan, U.S. Court of Appeals for the Third Circuit

Moderator

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Alumni Panel 1: Looking Back at the Last Ten Years of Law and Technology

William Ferullo L'01

Vice President, Assistant General Counsel & Lead IP Counsel, Informa

Barbara McClung L'87

Chief Legal Officer & Corporate Secretary, Caribou Biosciences, Inc.

Thomas Penn L'82

Partner, MVP Capital Partners

Lisa Sotto L'87

Partner, Hunton & Williams LLP

Moderator

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania



Left: Christopher Yoo, David Cohen L'81
Middle: Barbara McClung L'87, Vernon Francis L'87
Right: Teddi Anne Josephson L'19 MCIT'19

Alumni Panel 2: Predicting the Next Ten Years of Law and Technology

Emilio Cividanes L'83

Partner, Venable LLP

Osagie Imasogie GL'85

Senior Managing Partner & Founder, Phoenix IP Ventures

Gary Sangha L'03

Founder, LexCheck

Moderator

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and
Computer & Information Science, University of Pennsylvania

Reception

Remarks by David Cohen L'81

Senior Executive Vice President & Chief Diversity Officer, Comcast
Corporation



Top: Gary Sangha L'03, Osagie Imasogie GL'85, Milo Cividanes L'83
Bottom: Paul Ford L'18, Chase Morgan L'18, Fredrick Tippet L'18



Center for Technology, Innovation and Competition



Major Conferences

Inaugural Junior Faculty Forum on Law and STEM

Sixth Annual Global Patent Law Conference

After the Digital Tornado

Robo Advisors at the Regulatory Crossroads

Sixth Annual Computer Science and the Law Roundtable

Third Annual Copyright Scholarship Roundtable

Due Process, Transparency, and Fairness in Antitrust Enforcement: China, Europe, and the U.S.

Inaugural Junior Faculty Forum on Law and STEM

October 6-7, 2017

Penn Law, in partnership with Northwestern Pritzker School of Law and Stanford Law Schools, came together this year and organized a new Junior Faculty Forum dedicated to scholarship focusing on the intersection of Law and Science-Technology-Engineering-Mathematics (STEM).

The goal of the Forum is to promote interdisciplinary research exploring how developments in STEM are affecting law and vice versa. The Forum will be held each fall, rotating among the three law schools. The inaugural Forum featured presentations from ten young scholars selected on a blind basis for their excellence. Each paper featured two commentaries by senior scholars in both law and STEM.



Arti Rai



Tracy Pearl



Conference participants at the Inaugural Junior Faculty Forum on Law and STEM



October 6, 2017

Opening Remarks

Theodore Ruger

Dean and Bernard G. Segal Professor of Law, University of Pennsylvania Law School

Mark Lemley

William H. Neukom Professor of Law, Stanford Law School

David Schwartz

Stanford Clinton Sr. and Zylpha Kilbride Clinton Research Professor of Law, Northwestern Pritzker School of Law

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Protecting Autonomy in the Era of Neural Control

John Medaglia

Assistant Professor of Psychology, Drexel University

Commentators

Deborah Denno PhD'82 L'89

Arthur A. McGivney Professor of Law, Fordham University School of Law

Geoff Aguirre PhD'00 MD'01

Associate Professor of Medicine, University of Pennsylvania Perelman School of Medicine

Dynamic Rationality

Stephanie Bair

Associate Professor of Law, J. Reuben Clark Law School, Brigham Young University

Commentators

Jonathan Masur

John P. Wilson Professor of Law, David and Celia Hilliard Research Scholar, University of Chicago Law School

Martha Farah

Professor of Psychology, University of Pennsylvania

Subversive Science

Dov Fox

Professor of Law, University of San Diego School of Law

Commentators

Tess Wilkinson-Ryan L'05 MA'06 PhD'08

Professor of Law and Psychology, University of Pennsylvania

Kenworthy Bilz

Professor of Law, University of Illinois College of Law

Hands on the Wheel: A Call for Greater Regulation of Semi-Autonomous Cars

Tracy Pearl

Associate Professor of Law, Texas Tech University School of Law

Commentators

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Rahul Mangharam

Associate Professor of Electrical and Systems Engineering, University of Pennsylvania

Algorithms as Prosecutors: Lowering Rearrest Rates Without Disparate Impacts and Identifying Defendant Characteristics "Noisy" to Human Decision-Makers

Daniel Chen

Professor, Toulouse School of Economics, University Toulouse Capitole

Commentators

Michael Heise

Professor of Law, Cornell Law School

Richard Berk

Professor of Criminology and Statistics, University of Pennsylvania

Progressive Genetic Ownership

Jessica Roberts

George Butler Research Professor of Law, University of Houston Law Center

Commentators

Rebecca Eisenberg

Robert and Barbara Luciano Professor of Law, University of Michigan Law School

Shyamkrishna Balganesh

Professor of Law, University of Pennsylvania Law School



Left: Rachel Sachs
Middle: Mark Lemley, David Schwartz
Right: Meg Leta Jones

October 7, 2017

The Unpatentable Microbiome

Rachel Sachs

Associate Professor of Law, Washington University School of Law

Commentators

Mark Lemley

William H. Neukom Professor of Law, Stanford Law School

Gary Wu

Ferdinand G. Weisbrod Professor in Gastroenterology, University of Pennsylvania Perelman School of Medicine

Cancer's IP

Jacob Sherkow

Professor of Law, New York Law School

Commentators

Arti Rai

Elvin R. Latty Professor of Law, Duke Law School

David Schwartz

Stanford Clinton Sr. and Zylpha Kilbride Clinton Research Professor of Law, Northwestern Pritzker School of Law

Designing Without Privacy

Ari Waldman

Professor of Law, New York Law School

Commentators

Deirdre Mulligan

Associate Professor, UC Berkeley School of Information

Travis Breaux

Associate Professor of Computer Science, Carnegie Mellon University, Institute for Software Research

Does Technology Drive Law? The Dilemma of Technological Exceptionalism in Cyberlaw

Meg Leta Jones

Assistant Professor of Communication, Culture & Technology, Georgetown University

Commentators

John McGinnis

George C. Dix Professor in Constitutional Law, Northwestern Pritzker School of Law

Richard John

Professor of History and Communication, Columbia Journalism School



Top: Richard John
Bottom: Deirdre Mulligan

Sixth Annual Global Patent Law Conference

October 21, 2017
Tokyo, Japan

The Sixth Annual Global Patent Law Conference, hosted by Waseda University's Research Center for the Legal System of Intellectual Property and cosponsored by CTIC, Waseda University School of Law, and Nagoya University, provided a forum to review and discuss current topics in international patent law. The Conference this year focused on two important issues in patent law—indirect infringement and patent damages—and brought together members of the judiciary from Japan, Germany, and the U.S., scholars from Japan and the U.S., and several representatives from the private sector.



Masabumi Suzuki, Hon. Yoshiaki Shibata, Cynthia Dahl, Brett Bachtell, Christoph Rademacher, Motoyuki Koike, Hon. Leonard Stark



Waseda University



Ryu Takabayashi, R. Polk Wagner, Hon. Carsten Haase, Hon. Kathleen O'Malley, Ichiro Nakayama, Hon. Misao Shimizu, Ryoichi Mimura

Opening Remarks

Yoshimi Kikuchi

Dean, Professor of Law, Waseda University Graduate School of Law

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Indirect Patent Infringement

Kathleen O'Malley

Circuit Judge, U.S. Court of Appeals for the Federal Circuit

Misao Shimizu

Chief Judge, Intellectual Property High Court of Japan

R. Polk Wagner

Professor of Law, University of Pennsylvania Law School

Carsten Haase

Judge, Regional Court of Düsseldorf

Ryoichi Mimura

Attorney, Nagashima Ohno & Tsunematsu
Former Judge, Intellectual Property High Court of Japan

Ryu Takabayashi

Professor, Waseda University School of Law
Former Judge, Tokyo District Court and Matsuyama District Court

Moderator

Ichiro Nakayama

Professor, Kokugakuin University Law School

Patent Damages and Monetizing Patents

Leonard Stark

Chief Judge, U.S. District Court for the District of Delaware

Yoshiaki Shibata

Presiding Judge, Tokyo District Court Intellectual Property Division

Masabumi Suzuki

Professor, Nagoya University Graduate School of Law

Cynthia Dahl

Practice Professor of Law, University of Pennsylvania Law School

Brett Bachtell

Senior Legal Counsel, Qualcomm

Motoyuki Koike

Deputy Senior General Manager, Sony IPD

Moderator

Christoph Rademacher

Associate Professor, Waseda University Graduate School of Law

After the Digital Tornado

November 17-18, 2018

Many of the contemporary technology trends with the greatest significance for the economy and for public policy—Internet of Things, Big Data, Platform Economy, Blockchain, and Algorithmic Society—can be seen as manifestations of the increasing importance of networks powered by algorithms. Algorithmic control means that increasingly dynamic software will manage not just transactions and communication, but also human systems. The algorithmic networked world thus poses deep questions about power, freedom, fairness, and human agency.

Our cultures and institutions are not well-adapted to this new environment. Equally important, systems engineered for a distinct and limited digital world can be ill-suited for the complexities of the “real” world. Already, a number of controversies have arisen, many of which are difficult to address under established legal rules.

CTIC Affiliated Faculty member Kevin Werbach brought together experts in Internet law to consider fundamental unresolved questions of digital connectivity in the areas of networks, algorithms, and humanity. An edited volume of essays based on the presentations will be published by Cambridge University Press.



Christopher Yoo, Julie Cohen, Yochai Benkler



Herbert Hovenkamp at After the Digital Tornado

November 17, 2018

Introduction

Kevin Werbach

Associate Professor of Legal Studies and Business Ethics,
Wharton School

Panel: 20 Years of Internet Policy

Christopher Marsden

Professor of Internet Law, University of Sussex

Gigi Sohn L'86

Distinguished Fellow, Institute for Technology Law & Policy,
Georgetown University Law Center

Sally Wentworth

Vice President, Global Policy Development, The Internet Society

Theme I: Networks

Networks 1

Viktor Mayer-Schönberger

Professor of Internet Governance and Regulation, Oxford
Internet Institute, University of Oxford

Tim Wu

Julius Silver Professor of Law, Science and Technology, Columbia
Law School

Discussant

Herbert Hovenkamp

James G. Dinan University Professor, University of Pennsylvania

Kenworthy Bilz

Professor of Law, University of Illinois College of Law

Networks 2

Yochai Benkler

Jack N. and Lillian R. Berkman Professor for Entrepreneurial
Legal Studies, Harvard Law School

Julie Cohen

Mark Claster Mamolen Professor of Law and Technology,
Georgetown University Law Center

Discussant

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and
Computer & Information Science, University of Pennsylvania

November 18, 2018

Theme II: Algorithms

Technical Talk: Machine Learning and Algorithms

Michael Kearns

National Center Professor of Management & Technology,
Computer and Information Science, University of Pennsylvania

Algorithms 1

Kartik Hosanagar

John C. Hower Professor, Wharton School

Kevin Werbach

Associate Professor of Legal Studies and Business Ethics,
Wharton School

Discussant

Katherine Strandburg

Alfred B. Engelberg Professor of Law, New York University School
of Law

Algorithms 2

Deirdre Mulligan

Associate Professor, School of Information, University of
California, Berkeley

Christian Sandvig

Professor of Information, Professor of Communication Studies,
University of Michigan

Discussant

Ellen Goodman

Professor of Law, Rutgers Law School

Theme III: Humanity

Technical Talk: Security and Privacy

Bruce Schneier

Adjunct Lecturer in Public Policy, John F. Kennedy School of
Government, Harvard University

Humanity 1

Helen Nissenbaum

Professor of Information Science, Cornell Tech, Cornell University

Siva Vaidhyanathan

Robertson Professor of Modern Media Studies, University of
Virginia

Discussant

Joel Reidenberg

Stanley D. and Nikki Waxberg Chair and Professor of Law,
Fordham University School of Law

Humanity 2**Brett Frischmann**

Charles Widger Endowed University Professor in Law, Business and Economics, Villanova University

Shoshana Zuboff

Charles Edward Wilson Professor of Business Administration, Harvard Business School

Discussant**Joseph Turow BA'71 MA'73 PhD'76**

Robert Lewis Shayon Professor of Communication, Annenberg School for Communication, University of Pennsylvania

Panel: Looking to the Future**Karen Levy**

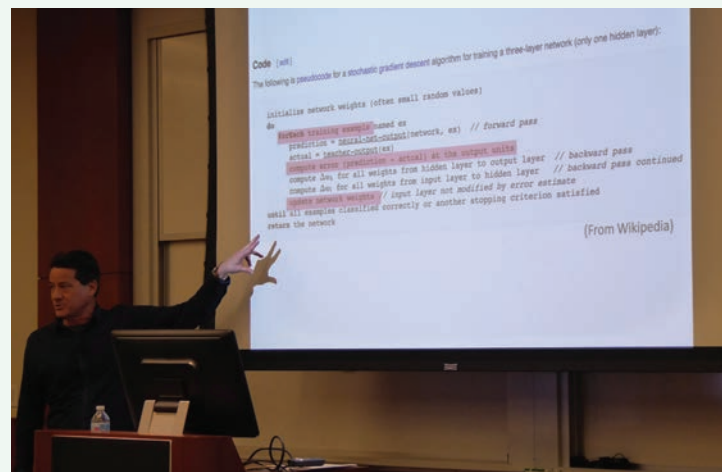
Assistant Professor of Information Science, Cornell University

Julia Powles

Research Fellow, New York University School of Law; Research Fellow, Cornell Tech, Cornell University

Lauren Henry Scholz

Assistant Professor of Law, Florida State University College of Law



Top: Kevin Werbach

Bottom: Michael Kearns

Robo Advisors at the Regulatory Crossroads

April 13, 2018

CTIC Secondary Faculty member Professor Tom Baker hosted a conference on automated financial advisors, cosponsored by CTIC, the Penn Wharton Public Policy Initiative, Penn's Warren Center for Network & Data Sciences, and Georgetown University's Institute of International Economic Law.

Robo advisors—automated services that rank or match consumers to financial products—present opportunities and challenges to financial services markets and regulators that have yet to be systematically addressed. The opportunities include lower cost, higher quality financial advice, and a digital feedback loop that increases the efficiency of financial markets and consumer financial security. The challenges include possible manipulation and misunderstanding of automated advice, the potential for further consolidation of the financial sector, and threats to privacy and security that accompany digitalization more broadly.

The workshop brought together academic and industry experts from diverse backgrounds, including IT practice, financial services, regulatory oversight, behavioral sciences, computer and data sciences, and law, to discuss the state of the art of robo advising, examine regulatory strategies, and think about future trends.



Chuck Mooney, Timothy Mullen



Barbara Richardson



Amias Gerety at Robo Advisors at the Regulatory Crossroads



Robo advising: Operational Forms and Strategies

Dan Egan

Director of Behavioral Finance and Investments, Betterment

Sam Kina

Senior Vice President of Economics and Data Science, Picwell

Justin Williams

Vice President, BlackRock

Legal & Compliance Counsel, FutureAdvisor

Moderator

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

The State of Play in Artificial Intelligence

Michael Kearns

National Center Professor of Management & Technology, Computer and Information Science, University of Pennsylvania

Solon Barocas

Assistant Professor of Information Science, Cornell University

Moderator

Tom Baker

William Maul Measey Professor of Law and Health Sciences, University of Pennsylvania Law School

Robo advising and the Consumer

Berkeley Dietvorst BS'11 PhD'16

Assistant Professor of Marketing, Chicago Booth School of Business

Benedict Dellaert

Professor of Marketing, Erasmus School of Economics, Erasmus University

Mary Steffel

Assistant Professor of Marketing, Northeastern University

Sunita Sah

Balen Sesquicentennial Fellow, Assistant Professor of Management and Organizations, Cornell University

Moderator

Tom Baker

William Maul Measey Professor of Law and Health Sciences, University of Pennsylvania Law School

Keynote

Amias Gerety

Partner, QED Investors

Former Acting Assistant Secretary for Financial Institutions, U.S. Department of the Treasury



Left: Chris Brummer
Middle: Barbara Richardson, Wei Zhang, Rochelle Kaufman Plesset
Right: Mary Steffel, Benedict Dellaert, Berkeley Dietvorst

Regulators and Roboadvicing: Strategies, Agreement and Dissensus

Steve Polansky MBA'98

Senior Director, Shared Services Department, Financial Industries Regulatory Authority

Wei Zhang

Program Manager, Cards Division, Consumer Financial Protection Bureau

Rochelle Kauffmann Plesset

Senior Counsel, Division of Investment Management, Securities and Exchange Commission

Barbara Richardson

Nevada Insurance Commissioner
Chair, Producer Licensing Working Group, National Association of Insurance Commissioners

Moderator

Chris Brummer

Professor of Law, Agnes N. Williams Research Professor, Georgetown University Law Center

The Future of Roboadvicing: Trends, Risks and Opportunities

Sevin Yeltekin

Professor of Economics and Senior Associate Dean of Education, Carnegie Mellon University

Chris Brummer

Professor of Law, Agnes N. Williams Research Professor, Georgetown University

Tom Baker

William Maul Measey Professor of Law and Health Sciences, University of Pennsylvania Law School

Moderator

David Wishnick

Research Fellow, University of Pennsylvania Law School



Top: Tom Baker
Bottom: Sevin Yeltekin

Sixth Annual Computer Science and the Law Roundtable

May 9-10, 2018

As part of the broader effort to promote interdisciplinary work bridging law and engineering, CTIC held its Sixth Annual Roundtable on Computer Science and Law on May 9-10. As in past years, the event brought together leading legal scholars and computer scientists pursuing interdisciplinary research at the intersection of law and computer science. The ongoing goal continues to be to promote interdisciplinary work spanning law and computer science and to provide an institutional home to encourage the future generations of scholars.



Christopher Yoo, David Clark, Scott Jordan, kc claffy



Aaron Roth, Eric Goldman



Jeanne Fromer at Sixth Annual Computer Science and the Law Roundtable



May 9, 2018

Legal Tutorial and Welcome

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Are Zero-Rating Practices in the Public Interest? A Set of Case Studies

Scott Jordan

Professor of Electrical Engineering and Computer Science, Samueli School of Engineering, University of California, Irvine

5G Analysis for the Netherlands

Zoraida Frias

Assistant Professor, Universidad Politécnica de Madrid

Moderator

kc claffy

Founder and Director, Center for Applied Internet Data Analysis (CAIDA), University of California, San Diego

Field Experiments to Test Programmed Stimulus-Response Behavior on Social Media Platforms

Brett Frischmann

Charles Widger Endowed University Professor in Law, Business and Economics, Villanova University

Preventing Fairness Gerrymandering in Machine Learning

Aaron Roth

Class of 1940 Bicentennial Term Associate Professor of Computer and Information Science, University of Pennsylvania

Moderator

David Clark

Senior Research Scientist, Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology

Crashworthy Code

Bryan Choi

Assistant Professor of Law and Computer Science & Engineering, Ohio State University

Liability and the Software Development Life Cycle: The Social Cost of Technical Debt

Gus Hurwitz

Assistant Professor of Law, University of Nebraska College of Law

Moderator

Konstantinos Stylianou SJD'15

Lecturer in Competition Law and Regulation, University of Leeds



Left: Nick Feamster
Middle: Shane Greenstein, Bryan Choi
Right: Steve Bellovin , Michael Kearns

May 10, 2018

Evidence of Decreasing Internet Entropy: The Lack of Redundancy in DNS Resolution by Major Websites and Services

Shane Greenstein

Martin Marshall Professor of Business Administration, Harvard Business School

Securing the Routing Infrastructure: Legal Barriers to RPKI Adoption

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Oblivious DNS: Practical Privacy for DNS Queries

Nick Feamster

Professor of Computer Science, Princeton University

Moderator

Steven Bellovin

Professor of Computer Science, Columbia University

Sometimes Three Rights Really Do Make a Wrong: Measuring Cybersecurity and Simpson's Paradox

Eric Jardine

Assistant Professor of Political Science, Virginia Tech

Trade Secrecy, the Cloud, Data, and Automation

Jeanne Fromer

Professor of Law, New York University School of Law

Moderator

William Lehr

Research Associate, Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology

Lunch and Discussion about Future Directions for the Conference

Moderator

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania



Top: Zoraida Frias
Bottom: Shane Greenstein

Third Annual Copyright Scholarship Roundtable

June 8-9, 2018

The Third Annual Copyright Scholarship Roundtable brought together the country's leading scholars who work in the area of copyright law for a two-day discussion of their ongoing research in the field. Nine papers were chosen for inclusion in the event, representing a range of methodologies, perspectives, and issues within the field.



Laura Heymann



Robert Brauneis



Conference participants at Third Annual Copyright Scholarship Roundtable



June 8, 2018

The Irrelevance of Copyright in Customized Creativity

Kevin Collins

Professor of Law, Washington University in St. Louis School of Law

Lead Commentator

Zahr Said

Associate Professor of Law, University of Washington School of Law

Copyright in Sharp Focus: An Empirical Study of Professional Photographers

Eva Subotnik

Associate Professor of Law, St. John's University School of Law

Lead Commentator

David Hoffman

Professor of Law, University of Pennsylvania Law School

The Case for Staggered Copyright Liability

Gideon Parchomovsky

Robert G. Fuller, Jr. Professor of Law, University of Pennsylvania Law School

Abraham Bell

Professor of Law, University of San Diego School of Law

Lead Commentator

Matthew Sag

Professor of Law, Loyola University Chicago School of Law

The Versificator: Algorithms and Authorship in the Adult Entertainment Industry

Christopher Sprigman

Professor of Law, New York University School of Law

Lead Commentator

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Copyright as "Legal Process": The Transformation of American Copyright Law

Shyamkrishna Balganesh

Professor of Law, University of Pennsylvania Law School

Lead Commentator

Robert Brauneis

Professor of Law, George Washington University Law School

In Lieu of Moral Rights for IP-Wronged Music Vocalists: Personhood Theory, Moral Rights, and the WPPT Revisited

Tuneen Chisolm L'99

Assistant Professor of Law, Norman Adrian Wiggins School of Law, Campbell University

Lead Commentator

Guy Rub

Associate Professor of Law, Ohio State University Moritz College of Law

Left: Eva Subotnik, Tuneen Chisolm L'99, Laura Heymann, David Hoffman, Kristelia Garcia
Middle: Gideon Parchomovsky, Avi Bell, Kevin Collins
Right: Shyamkrishna Balganesh

June 9, 2018

Copyright Arbitrage

Kristelia Garcia

Associate Professor of Law, University of Colorado Law School

Lead Commentator

Matthew Sag

Professor of Law, Loyola University Chicago School of Law

Copyright Law's Overlooked and Overloaded Jury

Zahr Said

Associate Professor of Law, University of Washington School of Law

Lead Commentator

Shyamkrishna Balganesh

Professor of Law, University of Pennsylvania Law School

Taking Intellectual Property into their Own Hands

Amy Adler

Emily Kempin Professor of Law, New York University School of Law

Jeanne Fromer

Professor of Law, New York University School of Law

Lead Commentator

Laura Heymann

Professor of Law, William & Mary Law School



Top: Eva Subotnik, Tuneen Chisolm
Bottom: David Abrams, Kristelia Garcia, Guy Rub

Due Process, Transparency, and Fairness in Antitrust Enforcement: China, Europe, and the U.S.

June 30, 2018
Beijing, China

As a part of a three-year project, CTIC, the University of International Business & Economics Director of the Competition Law Centre, and the Mannheim Centre on Competition and Innovation (MaCCI) at the University of Mannheim cohosted a conference at the Penn Wharton China Center to present preliminary research on due process in competition law enforcement procedures in China, Europe and the U.S. The research team also discussed their findings with Chinese judges, regulators, academics, and private sector representatives.



Louis Capozzi, Christopher Yoo, Thomas Fetzer, Jennifer Mao-Jones



Hong Yu, Li Zhu



Yong Huang at Due Process, Transparency, and Fairness in Antitrust Enforcement: China, Europe, and the U.S.



Opening Remarks and Presentation by the Team

Yong Huang

Professor, University of International Business & Economics
School of Law

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and
Computer & Information Science, University of Pennsylvania

Thomas Fetzter

Professor of Law, University of Mannheim Law School

Commentators

Li Zhu

Presiding Judge, Intellectual Property Tribunal of the Supreme
People's Court

Feng Xue

Chief Judge, Administrative Tribunal of the Beijing No. 1
Intermediate Court

Chair

Jiemin Sheng

Professor of Law, Peking University Law School

Keynote Address

Roger Alford

Deputy Assistant Attorney General, Antitrust Division, U.S.
Department of Justice

Chair

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and
Computer & Information Science, University of Pennsylvania

Panel Discussion

Thomas Fetzter

Professor of Law, University of Mannheim Law School

Xueying Hu

Chief Judge, Intellectual Property Tribunal of the Hohhot
Intermediate People's Court

Qing Li

Deputy Director General, Price Supervision and Anti-Monopoly
Bureau, State Administration for Market Regulation

Valeria Losco

Legal Consultant, Freshfields

Paul O'Brien

U.S. Federal Trade Commission

Feng Xue

Chief Judge, Administrative Tribunal of the Beijing No. 1
Intermediate Court

Xiaqiong Yang

Judge, Administrative Tribunal of the Beijing No. 1 Intermediate
Court

Hong Yu

Presiding Judge, Administrative Tribunal of the Supreme People's
Court

Li Zhu

Presiding Judge, Administrative Tribunal of the Supreme People's
Court

Chairs

Jiemin Sheng

Professor of Law, Peking University Law School

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and
Computer & Information Science, University of Pennsylvania



Left: Roger Alford
Middle: Thomas Fetzet, Shan Jiang
Right: Jiemin Sheng

Introduction to Next Year's Topic: Big Data

Wenlian Ding

Chief Judge, No. 1 Intellectual Property Tribunal of the Shanghai Intellectual Property Court

Yanbei Meng

Professor, Renmin Law School

Catherine Tucker

Distinguished Professor of Management Science and Marketing Professor, Sloan School of Management, Massachusetts Institute of Technology

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania



Top: Xiqiong Yang, Paul O'Brien, Valeria Losco, Qing Li, Hong Yu, Li Zhu, Feng Xue, Xueying Hu, Thomas Fetzet
Bottom: Yanbei Meng, Catherine Tucker, Wenlian Ding



Center for Technology, Innovation and Competition



Events and Programs

The Future of Standard Essential Patents: Learning from Microsoft v. Motorola's Legacy

New Perspectives on Spectrum Policy

The Right to Privacy in the Supreme Court of India

The Role of the U.S. in the International Intellectual Property System

Current Issues in Law and Technology

Law and Technology Scholarship Workshop Series

Career Speaker Series

The Future of Standard Essential Patents: Learning from *Microsoft v. Motorola's* Legacy

March 16, 2018



This timely program brought together top government officials and leading scholars, practitioners, and business leaders to re-examine the *Microsoft v. Motorola* framework and explore current and emerging developments in standard essential patents. The event opened with a keynote address by the judge who presided over the case, followed by a panel discussion by the trial counsels for both sides.

A subsequent panel discussion, which included leading academics, industry representatives, attorneys, and government leaders in standard setting, explored the new legal and business issues surrounding standard essential patents.

The event closed with a landmark keynote address by the Honorable Makan Delrahim, Assistant Attorney General for Antitrust at the U.S. Department of Justice, who used the occasion to set forth a groundbreaking “New Madisonian” approach to antitrust and intellectual property law. The address will be the lead article in the inaugural issue of the new *Journal of Law and Innovation*.

Top: Cary Coglianese
Middle: Aviv Nevo, Kirti Gupta, Herbert Hovenkamp
Bottom: Hon. Makan Delrahim, Christopher Yoo



T. Andrew Culbert, Cynthia Dahl, Kirk Dailey, R. Polk Wagner



Hon. James L. Robart

Welcoming Remarks

Cary Coglianese

Edward B. Shils Professor of Law, University of Pennsylvania Law School

Opening Keynote Address

The Honorable James Robart

U.S. District Court for the Western District of Washington
Presiding Judge in *Microsoft v. Motorola*

Panel Discussion: *Microsoft v. Motorola's* Legacy in Today's High-Tech Business World

T. Andrew Culbert

Partner, Perkins Coie (formerly with Microsoft)

Cynthia Laury Dahl

Practice Professor of Law, University of Pennsylvania Law School

Kirk Dailey

Senior Vice President Business Development, Marconi Group
(formerly with Motorola)

Moderator

R. Polk Wagner

Professor of Law, University of Pennsylvania Law School

Panel Discussion: Emerging Legal and Business Issues in Standard Essential Patents

Kirti Gupta

Senior Director, Economic Strategy, Qualcomm Inc.

Aviv Nevo

George A. Weiss and Lydia Bravo Weiss University Professor,
Department of Marketing, Wharton School, Department of
Economics, University of Pennsylvania

Richard Taffet

Partner, Morgan, Lewis & Bockius LLP

Henry Wixon

Chief Counsel, National Institute for Standards and Technology

Moderator

Herbert Hovenkamp

James G. Dinan University Professor, University of Pennsylvania

Concluding Remarks and Introduction of Closing Keynote

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and
Computer & Information Science, University of Pennsylvania

Closing Keynote Address

The Honorable Makan Delrahim

Assistant Attorney General for Antitrust
U.S. Department of Justice

New Perspectives on Spectrum Policy

April 23, 2018



Top: Wayne Leighton, Umair Javed, Mark Bykowsky, Kevin Werbach
Middle: Katja Seim
Bottom: Michael Honig

CTIC and the Warren Center for Network & Data Sciences hosted a group of scholars, government officials, and industry representatives for a workshop on cutting edge issues in spectrum policy. Topics included retrospectives on the FCC's incentive auction, the impact of transaction costs in unlicensed spectrum, the interaction between licensed and unlicensed spectrum, and the potential for blockchain to coordinate spectrum usage.



Gregory Rosston



Walter Johnston

Welcome

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Rakesh Vohra

George A. Weiss and Lydia Bravo Weiss University Professor, Professor of Economics, and Professor of Electrical and Systems Engineering, University of Pennsylvania

Using Two-Sided Auctions and Overlay Auctions to Facilitate Reallocation

Gregory Rosston

Professor of Economics; Stanford University

Market Design and the FCC Incentive Auction

Lawrence Ausubel

Professor of Economics, University of Maryland

Revisiting the Justifications for Unlicensed Spectrum

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Transaction Costs in Wireless: Bringing Coasean Symmetry to 5G Spectrum Allocation Policy

Thomas Hazlett

Hugh H. Macaulay Endowed Professor of Economics, Clemson University

The Value of Shared Spectrum

Michael Honig

Professor of Electrical Engineering and Computer Science, Northwestern University

On the Application of Blockchain Technology to Spectrum Sharing

Kevin Werbach

Associate Professor of Legal Studies & Business Ethics, Wharton School



Shira Perlmutter L'83.

The Right to Privacy in the Supreme Court of India

October 16, 2017

In a recent historic decision, the Supreme Court of India ruled that privacy was a fundamental right. This landmark case challenged the legality of the Indian government's Biometric Databank Project, one of the first of its kind in the world. The Supreme Court's decision has been hailed globally for its reliance on international norms, comparative jurisprudence, and academic research, including the scholarship of CTIC Secondary Faculty member Anita Allen.

Senior Advocate Sajan Poovayya, who argued the case before the Court, spoke about the decision and the ways in which it will shape the direction of privacy rights and big data regulation in India and around the world. Professor Allen offered comments about the Court's reliance on insights from comparative privacy law for its reasoning.

Speakers

Sajan Poovayya

Senior Advocate, Supreme Court of India & High Court of Karnataka

Anita Allen

Henry R. Silverman Professor of Law, Professor of Philosophy, and Vice Provost for Faculty, University of Pennsylvania

The Role of the U.S. in the International Intellectual Property System

November 6, 2017

CTIC was honored to host Shira Perlmutter, a Visiting Policy Fellow for the Leo Model Foundation and Director for the International Affairs of the U.S. Patent and Trademark Office. She discussed the role of the U.S. in the international intellectual property system and shared her invaluable perspective into this ever-changing area of the law and intellectual property.

Speaker

Shira Perlmutter L'83

Chief Policy Officer and Director for International Affairs, U.S. Patent and Trademark Office;
Penn Law Fall 2017 Visiting Policy Fellow for the Leo Model Foundation

Current Issues in Law and Technology

Preview of Patent Cases Before the Supreme Court, October 2017 Term

October 4, 2017

CTIC hosted an in-depth preview of the patent law cases scheduled to be heard by the Supreme Court during the October 2017 Term. The panel featured Penn Law faculty who applied their expertise and research perspective to the following cases:

Oil States Energy Services, LLC v. Greene's Energy Group, LLC
SAS Institute v. Lee
SAS Institute v. Matal

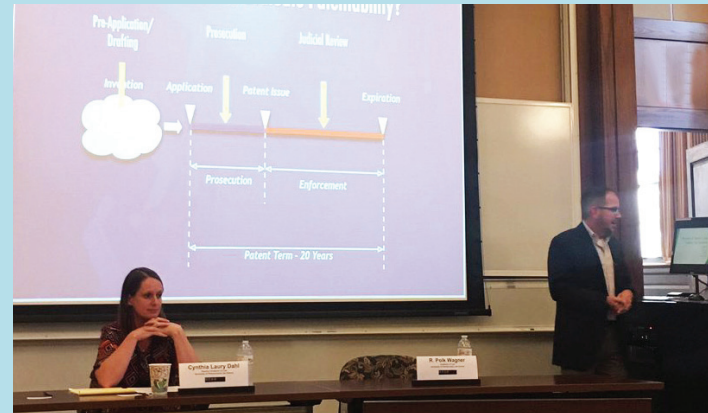
Panelists

R. Polk Wagner

Professor of Law, University of Pennsylvania Law School

Cynthia Laury Dahl

Practice Professor of Law, University of Pennsylvania Law School



Cynthia Dahl, R. Polk Wagner

Interpreting and Applying the Court's Copyright Jurisprudence after *Star Athletica*

December 7, 2017

CTIC joined the University of Pennsylvania Law Review, the Penn Intellectual Property Group, and the Copyright Society of the USA in hosting a panel of copyright experts to discuss the current state of copyright law following the *Star Athletica* decision.

Speakers

Steven Crosby

Attorney, Feldman Law Group

Shyamkrishna Balganesh

Professor of Law, University of Pennsylvania Law School

Jeanne Fromer

Professor of Law, New York University School of Law

Peter Menell

Koret Professor of Law, University of California, Berkeley, School of Law

Mark McKenna

John P. Murphy Foundation Professor of Law and Presidential Fellow, University of Notre Dame Law School

Tyler Ochoa

Professor of Law, Santa Clara University School of Law

Moderator

David Nimmer

Of Counsel, Irell & Manella LLP; Professor of Practice, University of California, Los Angeles, School of Law; Distinguished Scholar, Berkeley Center for Law and Technology



Jeanne Fromer, Tyler Ochoa, David Nimmer



Barton Beebe, Christopher Yoo, Jeanne Fromer



Christopher Yoo, Kevin Werbach

Running on Empty?: The Risk of Trademark Depletion and Possible Solutions

January 9, 2018

Recent empirical studies have raised the concern that the pool of available trademarks may be becoming depleted. A distinguished group of commentators presented papers demonstrating the empirical evidence and exploring possible solutions.

Speakers

Barton Beebe

John M. Desmarais Professor of Intellectual Property Law, New York University School of Law

Abraham Bell

Professor of Law, University of San Diego School of Law

Jeanne Fromer

Professor of Law, New York University School of Law

Mark McKenna

John P. Murphy Foundation Professor of Law and Presidential Fellow, University of Notre Dame Law School

Gideon Parchomovsky

Robert G. Fuller, Jr. Professor of Law, University of Pennsylvania Law School

Moderator

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

What's Next With Net Neutrality?

February 7, 2018

The January 4 release of the Federal Communications Commission's Restoring Internet Freedom Order marked the most recent turn of events in the longstanding and ever-changing debate over net neutrality. Two CTIC Scholars and leading experts in the field explored what the agency's action means and what the future might hold for Internet policy.

Speakers

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Kevin Werbach

Associate Professor of Legal Studies and Business Ethics, Wharton School

Current Developments in Blockchain Law and Policy

March 22, 2018

CTIC hosted a discussion of emerging legal issues in blockchain, with an emphasis on Initial Coin Offerings (ICO). These varied pieces of code have spawned a rapidly expanding market, and a wide variety of urgent legal questions. The panel discussed the applicable legal regimes (including securities, commercial and corporate law) touching ICO transactions and offered suggestions for the near-term future of ICO regulation.

Speakers

David Hoffman

Professor of Law, University of Pennsylvania Law School

Kevin Werbach

Associate Professor of Legal Studies and Business Ethics, Wharton School

Joshua Ashley Klayman

Of Counsel, Morrison & Foerster LLP



David Hoffman, Kevin Werbach, Joshua Ashley Klayman

We've Been Wrong for 30 Years? *TC Heartland* and its Implications for Patent Law and Practice

April 4, 2018

In May 2017, the Supreme Court issued its opinion in the landmark case of *TC Heartland LLC v. Kraft Foods Group Brands LLC*. The decision overruled a 26-year-old precedent of the Federal Circuit and ended an era during which more than 40% of all patent infringement suits were being brought in a single judicial district (E.D. Tex.), to much public and scholarly outcry. CTIC hosted an in-depth discussion of *TC Heartland* to explore the question: just what had patent venue law actually been between 1990 and 2017?

Speakers

The Honorable Leonard Stark

Chief Judge, U.S. District Court for the District of Delaware
Presiding Judge in *TC Heartland LLC v. Kraft Foods Group Brands LLC*

James Dabney

Partner, Hughes Hubbard & Reed LLP; Adjunct Professor, Cornell Law School
Attorney for *TC Heartland*

R. Polk Wagner

Professor of Law, University of Pennsylvania Law School



James Dabney, Hon. Leonard Stark, R. Polk Wagner

Law and Technology Scholarship Workshop Series

Each year, CTIC invites scholars to campus to present new work in fields related to CTIC's research in law and technology. We were delighted to welcome a great group of scholars this year.



Joseph Fishman

Associate Professor of Law, Vanderbilt Law School
Music as a Matter of Law



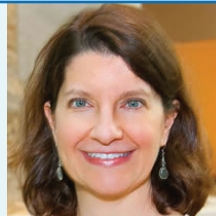
Luigi Alberto Franzoni

Professor of Public Economics, University of Bologna
Legal Change in the Face of Uncertainty



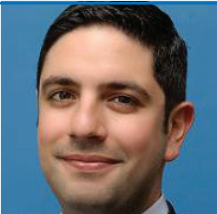
Janet Freilich

Associate Professor of Law, Fordham University School of Law
False Prophets: The Problem of Fictional Data in Patents



Sharona Hoffman

Edgar A. Hahn Professor of Law, Case Western Reserve University School of Law
Big Data and the Americans with Disabilities Act

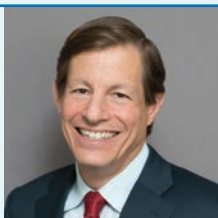


Jeremy Sheff

Professor of Law, St. John's University School of Law
Valuing Progress

Career Speaker Series

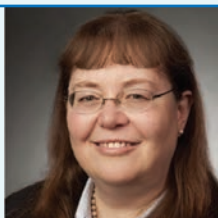
Every year, CTIC invites practitioners to campus to share with students their experiences and insights and discuss their respective careers in law and technology. The speakers also have the opportunity to engage in one-on-one discussions with interested students. This year we were pleased to have the following Penn Law alumni practitioners speak:



Bruce R. Genderson L'77
Partner, Williams & Connolly LLP



Bill Rock L'08
President, MLR Holdings; Executive Vice
President, The 451 Group



Susan M. Spaeth L'89
Managing Partner, Kilpatrick Townsend



James Wiley L'13
Attorney Advisor, Attorney Advisor,
Cybersecurity and Communications
Reliability, Public Safety &
Homeland Security Bureau, Federal
Communications Commission



Center for Technology, Innovation and Competition



News

Launch of the New *Journal of Law & Innovation*

NSF Grant on Securing the Routing Infrastructure

Comparative Study of Chinese, European, and U.S. Competition Enforcement

1 World Connected

NSF Grant on Secure and Privacy-Aware Cyber-Physical Systems

Tsinghua Global Forum

FCC's Broadband Deployment Advisory Committee

CTIC Faculty and the American Law Institute (ALI)

Detkin Intellectual Property and Technology Legal Clinic

Cutting-Edge Joint Degree Programs in Law and Engineering

CTIC Summer Public Interest Fellowships

Clerkships in Patent Law

Penn Intellectual Property Group (PIPG)

Students for Technological Progress (STP)

Partnership for Entrepreneurial Engineering and Penn Law (PEEPL)



Peter Menell



Students at the inaugural symposium

Launch of the New *Journal of Law & Innovation*

This year, CTIC was excited to launch the *Journal of Law & Innovation*, a new faculty-run law journal in the area of law and technology. The *Journal* also functions as a year-long seminar at which students have the opportunity to work closely with CTIC faculty on the production and editing of the *Journal*.

The *Journal* held its inaugural symposium, *Revisiting the Kinship between Copyright and Patent Law*, on April 19, 2018.

Introduction

Shyamkrishna Balganesh

Professor of Law, University of Pennsylvania Law School

The Utility Patent Supremacy Principle

Peter Menell

Koret Professor of Law, UC Berkeley School of Law

The Overlooked Reconceptualization of Transformative Fair Use: The Incorporation of Patent-Style Principles into Copyright

Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science, University of Pennsylvania

Abstraction, Filtration, and Comparison in Patentable Subject Matter

Michael Risch

Associate Dean of Faculty Research & Development and Professor of Law, Charles Widger School of Law, Villanova University

Explaining Criminal Sanctions

Irina Manta

Professor of Law, Maurice A. Deane School of Law, Hofstra University

The Curious Divergence of Patent and Copyright Law

John Duffy

Samuel H. McCoy II Professor of Law and Elizabeth D. and Richard A. Merrill Professor of Law, University of Virginia School of Law

Closing

Joshua Singh L'17

Editor-in-Chief, *Journal of Law & Innovation*

NSF Grant on Securing the Routing Infrastructure

CTIC is proud to be the recipient of a National Science Foundation Early-Concept Grant for Exploratory Research (NSF EAGER) grant to study legal and policy issues surrounding Internet routing security. Across the Internet, mistaken and malicious routing announcements pose a significant threat to the security of the routing infrastructure. The risk of route hijacks and misconfigurations imposes sizable, but avoidable costs on users and network operators.

To increase the reliability and security of routing announcements, governments and Internet governance bodies have encouraged network operators to deploy a technology known as Resource Public Key Infrastructure ("RPKI") to verify that route origins contained in route announcements are valid. But despite this encouragement, RPKI's adoption rates remain low, particularly in North America.

Our research explores concerns raised by many members of the Internet community that legal barriers are hindering the adoption of RPKI. In particular, the organizations that play a central role in RPKI require users who wish to deploy the technology to sign contracts containing clauses that some private- and public-sector network operators find problematic.

CTIC's efforts this year have involved independent analysis of the legal aspects of routing security and the relevant legal documents. We have also conducted dozens of interviews with network operators, policymakers, inside counsel, cybersecurity professionals, and computer scientists to understand their concerns. On the basis of this research and analysis, CTIC will present recommendations to the routing security community in a number of venues during the fall of 2018.

This research is supported by the NSF's Secure and Trustworthy Cyberspace Program, EAGER Award #1748362.





Comparative Study of Chinese, European, and U.S. Competition Law

One of the distinctive aspects of technology is its tendency to transcend national borders, both because of the effects of standardization and because of increasing ease with which information can flow around the world. The recent Chinese anti-monopoly case against Qualcomm and the EU competition law cases against Google underscored the need for businesses around the world to gain a better understanding of how antitrust laws and competition policy are likely to be applied. At the same time, China's most recent five-year plan, announced in December 2015, reflects a marked increase in emphasis on innovation, and the Chinese government has initiated a series of efforts to reform administrative enforcement.

To address this need, CTIC initiated a three-year research project to compare how key issues of antitrust law are handled in China, Europe and the U.S. "The response to the program has been overwhelming," said Professor Christopher Yoo, CTIC's Founding Director. "It has attracted interest from enforcement authorities and companies in all three jurisdictions, all of which recognize the need for this type of comparative research."

Professor Yoo is joined in the project by Wharton Professor Joseph Harrington. Chinese partners include Professor Yong Huang, Director of the Competition Law Research Center at the University of International Business and Economics Law School, and Professor Guobin Cui of the International Intellectual Property Program at Tsinghua University. European expertise is provided by Professor Thomas Fetzner, Director of the Mannheim Center on Competition and Innovation and Dean Emeritus of the University of Mannheim Law School. The project also has the support of a China Research Engagement Fund provided by Penn Global and key corporate supporters.

The research team hosted a conference on November 4, 2017 at the Penn Wharton China Center in Beijing at which they discussed their preliminary research findings with Chinese judges and enforcement authorities. They are scheduled to reconvene on November 3, 2018 at the Penn Wharton China Center and in the EU on November 21, 2018. The project also co-organized events in Korea with the Seoul National University Center for Competition Law on April 26, 2018, and near Taipei at Chung Yuan Christian University on April 30, 2018. We plan to expand the project to include outreach to the International Competition Network, the Organization for Economic Cooperation and Development (OECD), and the U.S. Justice Department's multilateral due process initiative, among others.

1 World Connected

1 World Connected is empirically assessing the effectiveness of projects to increase Internet connectivity around the world. During the 2017-18 academic year, this initiative has identified more than 700 potential case studies and conducted interviews to compile over one hundred of these efforts around the world. These efforts span not only projects in Latin America, Africa and Asia, but also explore innovative approaches in countries in the developed world, where the challenges and solutions are fundamentally different.

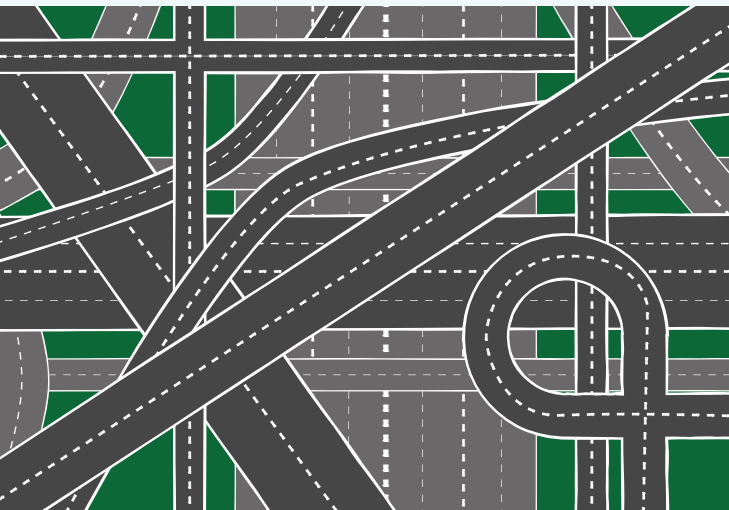
The case studies include both supply-side efforts to extend connectivity and reduce cost as well as demand-side efforts designed to encourage adoption, such as digital literacy training programs and programs to bring more women, youth, and disabled communities online. The studies provide meaningful information on last mile projects that use a myriad of funding sources, stakeholder groups, and technologies in every region across the world. They span efforts that use connectivity and connectivity-based tools to improve economic development, education, health, e-government, agriculture, and gender inclusion.

The project team is synthesizing information on project costs to understand the sustainability of last mile deployments informed by empirics, as well as creating actionable insights for decisionmakers on the design of successful digital development programs. The project is also partnering with key organizations in the field to conduct academic-quality studies of the impact of connectivity on key development outcomes in education, health, financial inclusion and gender empowerment in various parts of the world, including Rwanda, Vanuatu, and Nepal.

1 World Connected collaborates with organizations around the world, including the World Economic Forum's Internet for All, the IEEE Internet Inclusion Initiative, the Digital Impact Alliance, the Internet Society, and EQUALS. It leads the Dynamic Coalition on Innovative Approaches to Connecting the Unconnected and led the work on Connecting and Enabling the Next Billions (Phase III) at the United Nations Internet Governance Forum. It convened and contributed to events at the Internet Governance Forum, WSIS Forum, UN Science Technology and Innovation Forum, as well as other national and international venues.



Vanuatu



NSF Grant on Secure and Privacy-Aware Cyber-Physical Systems

CTIC is proud to continue its participation in the National Science Foundation (NSF) grant to conduct research into security and privacy for cyber-physical systems (CPS). CPS, such as autonomous vehicles and medical devices, combine network connectivity with sensors that collect information from the physical environment. These systems are performing increasingly critical functions subject to severe resource constraints. Moreover, CPS incorporate real-world data that make them less predictable and more vulnerable to attacks than pure cyber systems. Unfortunately, most CPS were not designed with a hostile environment in mind.

This project addresses this shortcoming by providing a novel design capable of providing CPS with quantifiable security and privacy protection against zero-day attacks. The design incorporates a layered approach that includes not only prevention, but also fast detection and recovery.

This year's efforts expanded on previous work exploring the implications of products liability law for CPS security in considering the privacy-related aspects of the design. In particular, the work explored the implications of key legal regimes such as the Health Insurance Portability and Accountability Act (HIPAA), regulation of medical devices by the Food and Drug Administration (FDA), and current and proposed regulation by the National Highway Transportation Safety Administration (NHTSA).

This research is being conducted in partnership with faculty from Penn's School of Engineering and Applied Science, Perelman School of Medicine, and School of Arts and Sciences, the University of Michigan, and Duke University. It is supported in part by NSF CNS-1505799 and the Intel-NSF Partnership for Cyber-Physical Systems Security and Privacy.

Tsinghua Global Forum

The 2017 Global Forum brought together faculty and students from four elite law schools to participate in an intensive two-day program on September 15-16, 2017, in Beijing to examine a broad array of Internet governance issues. This year's Penn Law delegation was led by CTIC Primary Faculty member Christopher Yoo. The other participating universities included the host school, Tsinghua University, along with Japan's Waseda University and Germany's Goethe University.

This Forum provided students with unparalleled opportunities to examine issues in international and comparative law with top faculty and students. Topics included liability for online intermediaries, cybercrime, the right to be forgotten, the competition law implications of open source platforms, free speech and net neutrality, the role of artificial intelligence, personal jurisdiction in cyberspace, and the proper application of unfair competition law to the Internet, among others.



Forum participants



Amanda Simmons L'19, Christina Chen L'20 MCIT'20, Christopher Yoo, Christina Cheung L'19, Kelsey Matevish L'19 MCIT'19



Christopher Yoo

FCC's Broadband Deployment Advisory Committee

Professor Christopher Yoo is one of 29 members appointed by Federal Communications Commission (FCC) Chairman Ajit Pai to serve on the newly created Broadband Deployment Advisory Committee (BDAC). The appointment will continue until early 2019.

The BDAC's mission is to provide advice and make recommendations to the FCC on how to accelerate the deployment of high-speed Internet access by reducing and removing regulatory barriers to infrastructure investment.

Yoo is a leading authority in law and technology whose research focuses on how the principles of network engineering and the economics of imperfect competition can provide insights into the regulation of electronic communications. He also led the BDAC's efforts to assess current deployment practices empirically.

"High-speed Internet access has economic, educational, and health benefits for users," said Yoo. "The FCC has already incorporated important elements of the BDAC's recommendations into its official work. We hope that our ongoing work can help identify additional ways to provide expand Internet access to citizens across the country."

CTIC Faculty Service in American Law Institute (ALI) Projects

Founded in 1923, the American Law Institute (ALI) is an independent organization that produces scholarly work to clarify, modernize, and improve the law. It currently has 2,900 elected members, including eminent lawyers, judges, and academics. CTIC faculty are playing key roles in many ALI projects.

Anita Allen and Christopher Yoo both serve as Advisers for the Project on Principles of the Law, Data Privacy. The first two chapters of this project have already been adopted by the ALI Council and await approval by the ALI membership. Work on the third chapter will continue during the upcoming year.

Shyamkrishna Balganesh serves as an Advisor for the Project on Restatement of the Law, Copyright. The first three of eleven chapters have been drafted, but have not yet been submitted for approval. Balganesh was one of four key scholars who submitted a letter that has led the ALI to consider whether this project should use a format that differs from the typical Restatement format.

Tom Baker serves as one of the Reporters for the Project on Restatement of the Law, Liability Insurance. This project reached its successful completion this summer, when the ALI membership approved all four of its chapters at its 2018 Annual Meeting this past summer.

Yoo also serves on the newly formed Board of Advisers for the Project on Principles for a Data Economy. This project will hold its organizational meeting this fall.

David Hoffman has been an elected ALI member since 2011.

CTIC is proud of the contributions its faculty is making to the important work of the ALI.



Top to bottom: Anita Allen, Christopher Yoo
Shyamkrishna Balganesh, Tom Baker



Detkin IP Clinic students: Jim Ermilio L'19, Michelle Bone L'19, Kevin Lawler L'19, and Alex Patrick L'19

Detkin Intellectual Property and Technology Legal Clinic

In 2017-2018, Penn Law's Detkin Intellectual Property and Technology Legal Clinic completed its fifth full academic year under the direction of CTIC's Cynthia Dahl. Designed as a "teaching IP law firm," the Detkin Clinic allows upper-level IP students to impact the Penn and Philadelphia innovation communities by assuming primary responsibility for helping clients commercialize their inventions.

The Detkin Clinic is unique among IP clinics nationwide in that it assumes a sizeable percentage of work from the University of Pennsylvania's technology transfer office, known as the Penn Center for Innovation (PCI). Students counsel Penn start-up companies and Penn laboratories with early stage discoveries, helping them to analyze their legal and business options and choose their best path to commercialization.

The Detkin Clinic seminar also provides opportunities for law students to work with students from other schools at Penn that represent the types of professionals they will meet in practice, especially in business, technology, science and the arts.

Besides PCI, students represent Wharton-affiliated entrepreneurial ventures, community inventors, nonprofits, and individual artists and creators in a broad-based transactional practice. Students gain experience with drafting, negotiating, and counseling clients at the cutting edge of IP and technology law.

Cutting-Edge Degree Programs in Law and Engineering

At a time when debates over technology policy are as significant as they are complex, Penn Law has developed one of the most comprehensive educational programs aimed at preparing students for careers at the intersection of law and technology.

Together with the School of Engineering and Applied Science (SEAS), Penn Law offers two joint-degree programs in law and technology: the JD/Master of Computing and Information Technology (MCIT), which requires no prior engineering or computer science background, and the JD/Master of Science in Engineering (MSE), which is intended for students with strong undergraduate backgrounds in engineering or computer science.

In addition, Penn Law offers a technology track for its one-year Master in Law degree (ML) geared to students and technology professionals in a field increasingly defined by regulation and new technology. Graduates of the program will have developed key analytical and critical thinking skills as well as a base of knowledge that will prepare them for careers in technology as inventors, leaders of technology firms, and more.

Penn Law students have also successfully completed other interdisciplinary programs, such as the Graduate Certificate in Engineering Entrepreneurship offered by Penn's Engineering School.

Whether a person is a graduate or an undergraduate student, or a future lawyer or technologist, Penn has a program tailored to fit their interests.



Delaney Butler L'20 MCIT'20
Christina Chen L'20 MCIT'20
Teddi Anne Josephson L'19 MCIT'19
Anna Marion L'19 MSE'19
Kelsey Matevish L'19 MCIT'19



Top: Christina Chen L'20 MCIT'20
Bottom: Vivek Kembaiyan L'20

CTIC Summer Public Interest Fellowships

The CTIC Summer Public Interest Fellowships provide financial support for Penn Law 1Ls and 2Ls interested in internships with public interest or government organizations doing work relevant to CTIC's focus in technology policy, intellectual property, cyber law, privacy, and related fields.

The 2018 Summer Public Interest Fellowships were awarded to Christina Chen L'20 and Vivek Kembaiyan L'20. They have been working this summer providing pro-bono legal services to clients on issues relating to the internet, new technology, and intellectual property at the Cyberlaw Clinic at Harvard Law School's Berkman Klein Center for Internet & Society.

"I'm so thankful for the CTIC summer fellowship for helping make it possible for me to spend the summer immersed in this exciting public interest work," said Kembaiyan. "It has re-affirmed my interest in building a public interest career around increasing digital privacy protections and made me more excited to dive into these topics further in my remaining time at Penn Law."

Previous CTIC Summer Public Interest Fellows have worked at NASA, the Wistar Institute, the Berkman Klein Center for Internet and Society at Harvard University, the International Intellectual Property Institute, the White House Office of Science and Technology Policy, the American Antitrust Institute, and the Federal Communications Commission.

The Fellowships are just one of many ways that CTIC provides Penn Law students with opportunities to gain experience in law and technology that might not otherwise be available to them. Other possibilities include participation in research, conferences, academic workshops, technology-related student organizations, and career-oriented programming, just to name a few.

Clerkships in Patent Law

On February 28, 2017, CTIC, in partnership with the Penn Intellectual Property Group, hosted a panel discussion which focused on district court and Federal Circuit patent law clerkships and the clerkship application process. The participants included:

Panelists

The Honorable Leonard Stark

Chief Judge, U.S. District Court for the District of Delaware

Julie Goldemberg, L'12

Associate, Morgan, Lewis & Bockius LLP

Former Clerk to Judge Sharon Prost, U.S. Court of Appeals for the Federal Circuit

Christie Larochelle

Associate, Ballard Spahr LLP

Former Clerk to Judge Richard G. Andrews, U.S. District Court for the District of Delaware

Moderator

R. Polk Wagner

Professor of Law, University of Pennsylvania Law School

CTIC is proud of the recent Penn Law graduates who recently completed clerkships or are currently clerking for distinguished patent law judges:

Allie Berkson Drory L'12

Judge Richard Taranto, U.S. Court of Appeals for the Federal Circuit, 2017-18 Term

Nora Crawford L'17

Chief Judge Leonard Stark, U.S. District Court for the District of Delaware, 2017-18 Term

Judge Kent Jordan, U.S. Court of Appeals for the Third Circuit, 2018-19 Term

Stephen DeSalvo L'17

Judge Kent Jordan, U.S. Court of Appeals for the Third Circuit, 2017-18 Term

Judge Raymond Clevenger III, U.S. Court of Appeals for the Federal Circuit, 2018-19 Term

Andreas Kuersten L'14

Judge Evan Wallach, U.S. Court of Appeals for Federal Circuit, 2018-19 Term

Matt Lembo L'17

Judge Raymond Clevenger III, U.S. Court of Appeals for the Federal Circuit, 2017-18 Term

Eric Schlabs L'17

Judge Richard Andrews, U.S. District Court for the District of Delaware, 2017-18 Term

Kaiyi Xie L'16

Judge Raymond Clevenger III, U.S. Court of Appeals for the Federal Circuit, 2017-18 Term



Julie Goldemberg L'12, The Hon. Leonard Stark, Christie Larochelle, R. Polk Wagner

Penn Intellectual Property Group (PIPG)

CTIC is pleased to enjoy a highly collaborative relationship with the Penn Intellectual Property Group (PIPG), a student group at the Law School established during the fall of 2001. PIPG focuses on creating and supporting interest in intellectual property at Penn Law, Penn, and the broader Philadelphia community. PIPG continues to expand its efforts and programming, which include career panels, academic symposiums, and social events.

PIPG's signature event is its annual symposium held every spring. This year's symposium explored how the open source movement has embedded itself into today's technology-driven world.

2018 Annual PIPG Symposium

Open Source's Impact on Innovation

March 27, 2018

Keynote

Keith Bergelt

Chief Executive Officer, Open Invention Network

Open Source Licensing Panel

Joseph Guagliardo

Partner, Pepper Hamilton LLP

Jeffrey Gluck

Partner, Panitch Schwarze

Andrew Hall

Founder, Hall Law

Mindy Schwartz

Deputy General Counsel and Vice President, Comcast Cable

Data Security Panel

Abraham Rein

Co-Chair, Information Privacy & Security Practice, Post & Schell PC

Heather Meeker

Partner, O'Melveny & Myers

Kim Phan

Of Counsel, Ballard Spahr LLP

Open Source Considerations in Start-Ups Panel

Cynthia Dahl

Practice Professor of Law; Director of the Detkin Intellectual Property and Technology Legal Clinic, University of Pennsylvania Law School

Stephen Gillespie

Partner, Fenwick & West LLP

Van Lindberg

Member, Dykema Cox Smith

John Neclerio

Partner, Duane Morris LLP



Students for Technological Progress (STP)

Students for Technological Progress (STP) is a pro bono student project founded by Natalie Punchak L'15 and Ross Slutsky L'16 that works with a wide range of clients on a variety of legal issues at the intersection of law and policy.

STP focuses on privacy, telecommunications, open Internet issues, and intellectual property—not traditional pro bono areas for law school students. When STP was founded in 2014, the project had one community partner: the Media Mobilizing Project. Now, in addition to developing a deep and robust collaboration with the Media Mobilizing Project, STP has a number of organizational partners including the Center for Democracy and Technology, TechFreedom, and Public Knowledge.

Students have worked on an array of projects, including policy research on tort liability, research on the economics of broadband deployment, and support in drafting a brief for a D.C. Circuit case on administrative law and drones.



Partnership for Entrepreneurial Engineering and Penn Law (PEEPL)

The Partnership for Entrepreneurial Engineering and Penn Law (PEEPL) is a student-run legal counseling simulation supervised by CTIC Primary Faculty member Cynthia Dahl. PEEPL pairs law students with teams of engineering students enrolled in the Engineering Entrepreneurship class at Penn's School of Engineering and Applied Sciences.

The teams research and develop a technology into a proposed simulated business, which they then pitch to a panel of venture capitalists as a course capstone. The law students counsel the engineering teams during the semester, answering questions about protectability, licensing, and infringement of their inventions.

The goal of the partnership is to equip both future engineers and future attorneys with the skills they need to communicate effectively in an increasingly interdisciplinary professional environment.



Cynthia Dahl



CTIC thanks the following supporters:

American Tower Corporation

AT&T Inc.

Comcast Corporation

Google LLC

GSMA

Intel Corporation

Josephson Family Fund

Microsoft Corporation

National Science Foundation

Penn Global

Qualcomm Incorporated

Verizon Communications Inc.

The Walt Disney Company



Center for Technology, Innovation and Competition
University of Pennsylvania Law School
3501 Sansom Street
Philadelphia, PA 19104-6204

www.law.upenn.edu/institutes/ctic/



3501 Sansom Street
Philadelphia, PA 19104-6204

FIRST CLASS MAIL
U.S. POSTAGE
PAID
PERMIT NO. 2563
PHILADELPHIA, PA
19104-6204