

# Law, Technology, and Competition at Penn

2019 – 2020

```
elif _operation == "MIRROR_Z":
    mirror_mod.use_x = False
    mirror_mod.use_y = False
    mirror_mod.use_z = True

#selection at the end -add back
mirror_ob.select= 1
modifier_ob.select=1
bpy.context.scene.objects.active = m
print("Selected" + str(modifier_ob))
mirror_ob.select = 0
Done = bpy.context.selected_objects
bpy.data.objects[mirror_ob.name].select = 0
print("Mirror object selected")
```





# Law, Technology, and Competition at Penn

2019 – 2020



Center for Technology, Innovation and Competition



The mission of the University of Pennsylvania Carey 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. CTIC delivers programming that explores the full range of scholarly perspectives, engages with technology policy and practice, and helps to create the next generation of technology law scholars, policymakers, and practitioners. This scholarship often taps into the vast interdisciplinary expertise both within the Law School and other parts of Penn, including The Wharton School, Annenberg School for Communication, and School of Engineering and Applied Science.

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



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## A Message from the Directors

This report commemorates the twelfth year of Penn Law's Center for Technology, Innovation and Competition. We are proud of what we have achieved and remain committed to being at the cutting edge of law and technology—in our research, innovative educational programs, and curricula.

The 2019-2020 academic year was not without its challenges. Despite these unprecedented times, CTIC adapted to an online format, hosting many events that engaged students, academics, and industry professionals worldwide.

CTIC is thankful to all of its friends and supporters for bringing their perspectives, experiences, participation, and expertise to our programs and research. 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 Penn's top ranked Wharton School, School of Engineering and Applied Science, Economics Department, Cinema Studies Program, Perelman School of Medicine, School of Social Policy & Practice, 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 COVID-19 pandemic has had an immense impact on all aspects of society, including crime. During this unprecedented situation, we need data to guide public precaution and policing. I have studied crime rates in more than 25 cities and have found that, although there is some variation for different types of crime, overall crime rates have fallen considerably over the course of the pandemic. We have the opportunity to learn something fundamental about crime in this unique moment and to assist future policymakers.”

## 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 the goal of understanding and measuring how individuals respond to incentives in various legal contexts. Criminal justice is one of his major areas of expertise. Abrams has investigated a variety of questions, including whether longer sentences deter crime, how a defendant's race impacts judicial decisions, to what extent attorney skill affects case outcomes, and how much individuals value freedom. His other major area of expertise is intellectual property. He has investigated the 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. Abrams 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 *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, The 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
- Intellectual Property
- Law and Economics
- Analytical Methods in Law
- Legal Logic to Win at Daily Life
- Patent 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

*COVID and Crime: An Early Empirical Look* (Univ. of Penn. Inst. for Law & Econ Research Paper No. 20-49 2020).

*Electoral Sentencing Cycles*, (Centre for Econ. Pol'y Research Discussion Paper No. DP14049 2019) (with Roberto Galbiati, Emeric Henry & Arnaud Philippe).

*When in Rome... on Local Norms and Sentencing Decisions*, VoxEU CEPR (June 5, 2019) (with Roberto Galbiati, Emeric Henry & Arnaud Philippe).

*The Patent Troll: Benign Middleman or Stick-Up Artist?* (Univ. of Chicago Becker Friedman Inst. for Econ. Working Paper No. 2019-51 2019).

*Patent Value and Citations: Creative Destruction or Strategic Disruption?* (NBER Working Paper No. w25713 2019) (with Ufuk Akcigit Gokhan Oz & Jeremy Pearce).





**SHYAMKRISHNA BALGANESH**

“I am currently working on a book manuscript examining the conceptual transformation of U.S. copyright law over the last century. I argue that U.S. copyright law morphed from being a body of private law rules based on rights, duties, and liability to a more public-oriented regulatory regime. This transformation has been largely underappreciated, which has produced a variety of perceived anomalies and puzzles within the working of the copyright system.”

## Shyamkrishna Balganesh

Professor of Law; Co-Director, Center for Technology, Innovation and Competition

Shyamkrishna Balganesh's 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. Balganesh is a Co-Director for the Penn Center for Asian Law. He was a recipient of the Robert A. Gorman Award for Excellence in Teaching in 2017 and the 2015 A. Leo Levin Award for Excellence in an Introductory Course. As a student at Yale Law School, he was an Articles & Essays Editor of the *Yale Law Journal* and a Student Fellow at the Information Society Project. Prior to that, he spent two years as a Rhodes Scholar at Balliol College, Oxford. For the fall 2019 term, he was the Samuel Rubin Visiting Professor of Law at Columbia Law School.

### 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
- Intellectual Property Scholarship
- Introduction to Intellectual Property Law and Policy

### 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 Use of Technical Experts in Software Copyright Cases: Rectifying the Ninth Circuit's "Nutty" Rule*, 35 BERKELEY TECH. L.J. (forthcoming 2021) (with Peter Menell).

LIMITATIONS AND EXCEPTIONS TO COPYRIGHT LAW IN COMPARATIVE PERSPECTIVE (Shyamkrishna Balganesh, Wee Loon Ng-Loy & Haochen Sun eds., Cambridge forthcoming 2020).

THE PRIVATE LAW OF INDIA (Oxford forthcoming 2020) (with Neel Maitra).

INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE, chs. 1 & 2 (Stan. Pub. Law Working Paper 2020) (with Peter Menell, Mark Lemley & Robert Merges).

*The In Rem/In Personam Distinction and Partitioning for Persistence*, in THE LEGACY OF WESLEY HOHFELD: EDITED MAJOR WORKS, SELECTED PERSONAL PAPERS, AND ORIGINAL COMMENTARIES (Shyamkrishna Balganesh, Ted Sichelman & Henry Smith eds., Cambridge forthcoming 2020).

*The Genius of Common Law Intellectual Property*, 48 J. LEGAL STUD. (forthcoming 2020).

*Copyright as Legal Process: The Transformation of American Copyright Law*, 167 U. PA. L. REV. 1101 (2020).

*Private Copyright*, 73 VAND. L. REV. 1 (2020).

*Do We Need a New Conception of Authorship?*, 43 COLUM. J.L. & ARTS 371 (2020).

*Vindicating IP's Channeling Principle and Restoring Jurisdictional Balance to Software Copyright Protection* (Univ. of Penn. Law Sch. Pub. Law Res. Paper No. 20-07 2020) (with Peter Menell & David Nimmer) (submitted as amicus brief in *Google v. Oracle*, No. 18-956 (U.S. filed Jan. 10, 2020)).

*The Uncopyrightability of Edicts of Government* (Univ. of Penn. Law Sch. Pub. Law Res. Paper No. 19-40 2019) (with Peter Menell) (submitted as amicus brief in *Georgia v. Public.Resource.org, Inc.*, 140 S. Ct. 1498 (2020) (No. 18-1150)).

*Mashups and Fair Use: The Bold Misadventures of the Seussian Starship Enterprise* (2019) (with Peter Menell & David Nimmer) (submitted as amicus brief in *Dr. Seuss Enterprises, L.P. v. ComicMix LLC*, No. 19-55348 (9th Cir. filed Aug. 12, 2019)).

*Private Law Statutory Interpretations*, 92 S. CAL. L. REV. (2019).

*The "Common Law" in Intellectual Property*, in 1 RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW 508 (Ben Depoorter & Peter Menell eds., Edward Elgar 2019).



**CYNTHIA LAURY DAHL**

“Practicing intellectual property law means adapting to constant change. The pandemic has presented an opportunity to teach students that counselors need to remain nimble, helping early stage ventures and arts organizations face pivots. In my scholarship, I have also been examining change sparked by legislation, looking at the long-term effects of the America Invents Act on university technology transfer.”

## Cynthia Laury Dahl

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

As the Director of the Detkin Intellectual Property and Technology Legal Clinic, Cynthia Dahl specializes in counseling clients on creating business value from intellectual property and technological innovation. Prior to joining Penn Law, Dahl 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, drafted and executed all IP agreements, and oversaw standards-setting activities. Before practicing in-house, she worked as an IP litigation associate at Holland & Hart LLP and Pennie & Edmonds LLP. Dahl also counseled artists for Volunteer Lawyers for the Arts and held several positions 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 mores of engineers and other non-legal professionals. She is also interested in the ethics and privacy implications of the use of certain technologies by lawyers and the clients they represent.

### Expertise

Intellectual Property, Law and Technology, Social Media

### Education

JD 1998 Stanford Law School

BA 1991 Yale University

### Courses Taught

- Detkin Intellectual Property and Technology Legal Clinic
- The Partnership for Entrepreneurial Engineering and Penn Law
- Advanced Intellectual Property Clinic

### Representative Publications

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

*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

*Did the America Invents Act Change University Technology Transfer?*, 19 TEX. INTELL. PROP. L.J. (forthcoming 2020).

*When Standards Collide with Intellectual Property: Teaching About Standard Setting Organizations, Technology, and Microsoft v. Motorola*, IP THEORY, Summer 2020, art. 5.

*Reviewing Inter Partes Review Five Years In: The View from the University Technology Transfer Offices*, in RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER (Edward Elgar 2020).

*Intellectual Property: Ownership and Protection in a University Setting*, in 1 ACADEMIC ENTREPRENEURSHIP FOR MEDICAL AND HEALTH SCIENTISTS, issue 3, art. 5 (Nalaka Gooneratne, Rachel McGarrigle & Flaura Winston eds., Univ. of Penn. 2019).

*Intellectual Property: Commercializing in a University Setting*, in 1 ACADEMIC ENTREPRENEURSHIP FOR MEDICAL AND HEALTH SCIENTISTS, issue 3, art. 1 (Nalaka Gooneratne, Rachel McGarrigle & Flaura Winston eds., Univ. of Penn. 2019).



**ALLISON HOFFMAN**

“This year COVID-19 brought deep attention to all of the facets of health law and regulation, showing many of the flaws in our current system, including the disorganized way that we pay for and deliver medical care. Over the next year, the national spotlight will illuminate legal questions about the development of treatments and vaccines for COVID, as well as continued public health regulation to contain its spread.”



## Allison 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. In summer 2020 she co-taught a class on COVID-19 and the Law.

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. In Spring 2019, she was a visiting professor and Oscar M. Ruebhausen Distinguished Senior Fellow at Yale Law School. Hoffman was awarded Penn Law's 2018 Gorman Award for Excellence. 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 Reform
- Torts
- Health Law and Policy

### Representative Publications

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

*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 Jackson).

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

### Recent Publications

*The American Pathology of Inequitable Access to Medical Care*, in *THE OXFORD HANDBOOK OF COMPARATIVE HEALTH LAW* (David Orentlicher & Tamara Hervey eds., Oxford forthcoming 2020) (with Mark Hall).

*The Irony of Health Care's Public Option*, in *DEBATING THE PUBLIC OPTION* (Anne Alstott & Ganesh Sitaraman eds., Harvard forthcoming 2020).

*How Medicalization of Civil Rights Could Disappoint*, 72 STAN. L. REV. ONLINE 165 (2020).

*As Coronavirus Shut Down Support Systems, the Struggles of Dementia Patients and Caregivers Only Get Worse*, PHILA. INQ., May 3, 2020, at E2 (with Sara Manning Peskin & Jason Karlawish).

*The Threat of Coronavirus Medical Bankruptcy*, THE HILL, April 1, 2020.

*The ACA's Choice Problem*, 45 J. HEALTH POL'Y & L. 501 (2020).

*Health Law & Ethics*, in *HEALTH SYSTEMS SCIENCE 220* (Susan Skochelak et al. eds., 2d ed., Elsevier 2020) (with William Sage & I. Glenn Cohen).

*Health Care's Market Bureaucracy*, 66 UCLA L. REV. (2019).

*The Neglect of Long-Term Care*, LAW & POL. ECON. PROJ. (Dec 5, 2019).

*The Myth of Health Insurance Choice*, THE HILL, Aug. 1, 2019.



**DAVID HOFFMAN**

“The COVID-19 pandemic has led to numerous disruptions that demonstrate the shortcomings of contracts in the face of disaster. During the Great Pause of March and April 2020, it became obvious that not performing certain contracts had become necessary to stop the virus. The law says shockingly little about pandemics and contracts. One of the only ways that parties can get out of performing contracts is if there’s some major unexpected event that counts as a *force majeure*—an unforeseeable circumstance that prevents someone from fulfilling a contract. But there’s some debate as to whether pandemics, which are arguably quite foreseeable, count as unexpected. Other than that, our courts generally enforce contracts as written—and that predictable enforcement is thought of as a feature, not a bug, of American law.”



## 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 digitized contracting over blockchain networks as well as the contractual documents governing Initial Coin Offerings. He has also written about whether millennials have developed a distinctive set of views that relate to their experiences with online commercial transactions and how firms use form contracts as brands to better engage users with digital platforms. He is currently building and analyzing a dataset of several hundred thousand Philadelphia residential leases. Before joining the legal academy, Hoffman was a litigation associate at Cravath, Swaine & Moore LLP in New York and served as 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
- Empirical Approaches to Contract Law
- Corporations

### Representative Publications

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

*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).

*"They Saw a Protest": Illiberalism and the Speech-Conduct Distinction*, 64 STAN. L. REV. 851 (2012) (with Dan Kahan et al.).

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

### Recent Publications

*Transactional Scripts in Contract Stacks*, 105 MINN. L. REV. (forthcoming 2020) (with Shaanan Cohney).

*The Social Cost of Contract*, 121 COLUM. L. REV. (forthcoming 2020) (with Cathy Hwang).

*Coin-Operated Capitalism*, 119 COLUM. L. REV. 591 (2019) (with Shaanan Cohney, Jeremy Sklaroff and David Wishnick).

*Hushing Contracts*, 96 WASH. U. L. REV. 165 (2019) (with Erik Lampmann).



**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. Hovenkamp is a Penn Integrates Knowledge Professor, part of a University-wide initiative to integrate research across different educational disciplines. He holds a joint appointment between Penn Law and The Wharton School. Prior to joining Penn, Hovenkamp was a Professor of Law at the University of Iowa and the University of California, Hastings College of the Law. Hovenkamp is a Fellow of the American Academy of Arts and Sciences.

Hovenkamp has been the Rockefeller Foundation Fellow and a Fellow of the American Council of Learned Societies at Harvard Law School, a Faculty Scholar and Presidential Lecturer at the University of Iowa, and the recipient of the University of Iowa Collegiate Teaching Award. Hovenkamp was awarded a Penn Law LLM teaching award in 2019.

### Expertise

Antitrust, Torts, Intellectual Property, American Legal History

### Secondary Appointments

Legal Studies and Business Ethics, The 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
- Antitrust: Mergers, IP & Vertical Restraints
- Law and Commerce in American History
- Torts

### Representative Publications

ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION (4<sup>th</sup> & 5<sup>th</sup> eds. Kluwer/Aspen) (with Phillip Areeda et al.).

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, 6th ed., 2020)

*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).

### Recent Publications

PRINCIPLES OF ANTITRUST (2d ed. West Academic forthcoming 2021)

*Antitrust and Platform Monopoly*, 130 YALE L.J. (forthcoming 2021).

*House Judiciary Inquiry into Competition in Digital Markets: Statement of Herbert Hovenkamp* (Univ. of Penn. Inst. for Law & Econ. Res. Paper No. 20-38 2020).

*Framing the Chicago School of Antitrust Analysis*, 168 U. PA. L. REV. (forthcoming 2020) (with Fiona Scott Morton).

*FRAND and Antitrust*, 105 CORNELL L. REV. (forthcoming 2020).

*The Looming Crisis in Antitrust Economics*, 100 B.U. L. REV. (forthcoming 2020).

*Antitrust's Borderline* (Univ. of Penn. Inst. for Law & Econ. Res. Paper No. 20-44 2020).

*Is Antitrust's Consumer Welfare Principle Imperiled?*, 45 J. CORP. L. 65 (2020).

*Apple v. Pepper: Rationalizing Antitrust's Indirect Purchaser Rule*, 120 COLUM. L. REV. F. 14 (2020).

*On the Meaning of Antitrust's Consumer Welfare Principle*, CONCURRENTIALISTE, Jan 17, 2020.

*Justice Department's New Position on Patents, Standard Setting, and Injunctions*, REG. REV., JAN 6, 2020.

*Competition Policy for Labour Markets* (OECD Roundtable on Competition Issues for Labor Markets 2019).

*Are Agreements to Address Climate Change Anticompetitive?*, REG. REV., Sept. 11, 2019.

*Anticompetitive Mergers in Labor Markets*, 94 IND. L.J. 1031 (2019) (with Ioana Marinescu).

*The Warren Campaign's Antitrust Proposals*, REG. REV., Mar. 25, 2019.

*Platforms & the Rule of Reason: The American Express Case*, 2019 COLUM. BUS. L. REV. 35 (2019).

*Regulation and the Marginalist Revolution*, 71 FLA. L. REV. 455 (2019).

*Intellectual Property & Competition*, in RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW 231 (Roger Blair & D. Daniel Sokol eds., 2019).



**GIDEON PARCHOMOVSKY**

“Copyright law employs a one-size-fits-all strict liability regime against all unauthorized users of copyrighted works. The current regime takes no account of the blameworthiness of the unauthorized user or of the information costs she faces. Nor does it consider ways in which the rights holders may have contributed to potential infringements, or ways in which they could have cheaply avoided them. My research this year, with Abraham Bell, calls for the establishment of three distinct liability categories — inadvertent, standard, and willful infringements — and tailors a specific menu of remedies for each of the categories.”

## 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 for a comprehensive property theory and for the need to introduce a value-oriented theory. Parchomovsky received the LLM teaching award for 2014-2015, the Harvey Levin Memorial Award for Teaching Excellence for 2012-2013, and the A. Leo Levin Award presented to the best teacher of a first-year course for 2010-2011.

### 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
- Trademarks

### 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

*The Paradox of Insurance* (Univ. of Penn. Inst. for Law & Econ. Res. Paper No. 20-20 2020) (with Peter Siegelman).

*Reversing the Fortunes of Active Funds* (Univ. of Penn. Inst. for Law & Econ. Res. Paper No. 20-04 2020) (with Adi Libson).

*The Reverse Agency Problem in the Age of Compliance* (Univ. of Penn. Inst. for Law & Econ. Res. Paper No. 19-38 2019) (with Asaf Eckstein).

*Corporate Law for Good People*, 115 NW. U. L. REV. 115 (2020) (with Yuval Feldman & Adi Libson).

*Autonomy*, 70 U. TORONTO L.J. (forthcoming 2020) (with Alex Stein).

*Restructuring Copyright Infringement*, 98 TEX. L. REV. 679 (2020) (with Abraham Bell).

*The Privacy Interest in Property*, 166 U. PA. L. REV. 917 (2019) (with Abraham Bell).

*Toward the Personalization of Copyright Law*, 86 U. CHI. L. REV. 527 (2019) (with Adi Libson).

*Toward a Horizontal Fiduciary Duty in Corporate Law*, 104 CORNELL L. REV. 803 (2019) (with Asaf Eckstein).



**R. POLK WAGNER**

“All too often, I find that advocates of ‘patent quality’ describe reforms that simply involve issuing far fewer patents — or issuing fewer or no patents in particular areas of technology or industry. This, I think, is a mistake. There are answers to the question of how we can prevent the issuance of poor-quality patents that are likely to be both extremely effective and also profoundly counterproductive. Therefore, it is important to tread quite carefully when seeking to improve patent quality and to understand the limits of legislation.”



## R. Polk Wagner

Michael A. Fitts Professor of Law

Polk Wagner is an expert in intellectual property with a focus on 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. Wagner was Deputy Dean of Penn Law from 2017-2019 and was the recipient of the Robert A. Gorman Award for Excellence in Teaching in 2015. 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
- ML: Introduction to Patent Law Online

### Representative Publications

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

“People are not irrevocably chaotic decision makers; the level of clarity in human thinking depends on how hard a problem is. In the COVID-19 era, I know with certainty whether I’m staying home, but the confidence interval around ‘I am being careful’ is really wide. Concrete guidance makes challenges easier to resolve. If masks work, states and communities should require them unequivocally. Cognitive biases are the reason to mark off six-foot spaces on the supermarket floor or circles in the grass at a park. For social-distancing shaming to be a valuable public-health tool, average citizens should reserve it for overt defiance of clear official directives — failure to wear a mask when one is required — rather than mere cases of flawed judgment.”

## Tess Wilkinson-Ryan

Professor of Law and Psychology

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. Wilkinson-Ryan served as Deputy Dean of Penn Law from 2017-2019. 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
- Consumer Law
- Ethical Leadership for Lawyers

### Representative Publications

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

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

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

### Recent Publications

*Justifying Bad Deals*, 169 U. PA. L. REV. (forthcoming 2020).

*Our Minds Aren't Equipped for This Kind of Reopening*, THE ATLANTIC, July 6, 2020.



**CHRISTOPHER YOO**

“Attitudes towards digital services have changed dramatically over the past few years. I have recently begun a project with Rakesh Vohra, my colleague in the Engineering School and the Economics Department, supported by the John S. and James L. Knight Foundation. We hope to provide a foundation for evidence-based decisionmaking regarding the economics of digital services. The project aims to further our understanding of technology companies whose business models are based on user data. The resulting research should provide a stronger foundation for the proper scope of antitrust enforcement and regulatory intervention.”

## Christopher Yoo

John H. Chestnut Professor of Law, Communication, and Computer & Information Science; Founding Director, Center for Technology, Innovation and Competition

Christopher Yoo is 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 big data and antitrust, 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 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, Regulated Industries, Presidential Power, First Amendment, Cyberwar

### 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

- Antitrust
- Internet Law
- Telecommunications Law
- Privacy
- Technology and Policy
- Introduction to Intellectual Property
- Copyright Theory
- Law & Innovation Seminar
- Intellectual Property Scholarship

### 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 Spulber).

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

*Beyond Network Neutrality*, 19 HARV. J.L. & TECH. 1 (2005).

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

### Recent Publications

*Privacy vs. Transparency: Handling Protected Materials in Agency Rulemaking*, 96 IND. L.J. (forthcoming 2021) (with Kellen McCoy).

*Due Process in Antitrust Enforcement: Normative and Comparative Perspectives*, 94 S. CAL. L. REV. (forthcoming 2021) (with Thomas Fetzer, Shan Jiang & Yong Huang).

*The Post-Chicago Antitrust Revolution: A Retrospective*, 168 U. PA. L. REV. (forthcoming 2020).

*The Emerging Role of the Network in Online Contracting: Cloud Computing, 5G, and Network Slicing*, 1 J.L. & INNOVATION (forthcoming 2020).

*Self-Actualization and the Need to Create as a Limit on Copyright*, in LIMITATIONS AND EXCEPTIONS TO COPYRIGHT LAW IN COMPARATIVE PERSPECTIVE (Shyamkrishna Balganesh, Wee Loon Ng-Loy & Haochen Sun eds., Cambridge forthcoming 2020).

*Network Effects in Action*, in GAI REPORT ON THE DIGITAL ECONOMY 159 (Douglas Ginsburg & Joshua Wright eds., George Mason 2020).

*Network Neutrality and 5G*, in THE FUTURE OF THE INTERNET — INNOVATION, INTEGRATION AND SUSTAINABILITY 121 (Guenter Knieps & Volcker Stocker eds., Nomos 2019).

*Lowering Legal Barriers to RPKI Adoption* (Univ. of Penn. Law Sch. Pub. Law Res. Paper No. 19-02 2019) (with David Wishnick).

*Intellectual Property and the Economics of Product Differentiation*, in 1 RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY 262 (Ben Depoorter & Peter Menell eds., Edward Elgar 2019).

*Free or Fee?: The Economics of Advertising Support vs. Direct Payments for Media Content*, in MEDIA MARKETS AND COMPETITION LAW 59 (Antonio Bavasso, Douglas Ginsburg & David Evans eds., Competition Pol'y Int'l 2019).

*Copyright and Personhood Revisited*, 2019 U. ILL. L. REV. 1039 (2019).

*James Wilson as Architect of the Presidency*, 16 GEO. J.L. & PUB. POL'Y 51 (2019).

*Due Process in International Antitrust Enforcement: An Idea Whose Time Has Come*, CPI ANTITRUST CHRON., Sept. 2019.

Book Review, ANTITRUST & PUB. POLICIES (2019).

*Procedural Fairness in Antitrust Enforcement: The U.S. Perspective*, in ANTITRUST PROCEDURAL FAIRNESS 31 (D. Daniel Sokol & Andrew Guzman eds., Oxford 2019) (with Hendrik Wendland).

*The Emerging Internet of Things: Opportunities and Challenges for Privacy and Security*, in GOVERNING CYBERSPACE DURING A CRISIS IN TRUST 41 (Aaron Shull ed., Centre for International Governance Innovation 2019).



## David Wishnick

### Academic Fellow

David Wishnick's scholarship focuses on the interactions between law and technology in shaping financial markets and business forms. Before joining Penn Law, 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
- Law & Innovation Seminar

### Representative Publications

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

### Recent Publications

*Reengineering Financial Market Infrastructure*, 105 MINN. L. REV. (forthcoming 2020).

*Technocratic Essentialism and Financial Regulation*, 130 YALE L.J. (forthcoming 2020) (with Peter Conti-Brown).

*Private Markets, Public Options, and the Payment System*, 37 YALE J. ON REG. (forthcoming 2020) (with Peter Conti-Brown).

*Coin-Operated Capitalism*, 119 COLUM. L. REV. 591 (2019) (with Shaanan Cohnen, David Hoffman & Jeremy Sklaroff).

*Lowering Legal Barriers to RPKI Adoption*, (Univ. of Penn. Law Sch. Pub. Law Res. Paper No. 19-02 2019) (with Christopher Yoo).





## Anita Allen

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

Anita Allen is an expert in privacy law, the philosophy of privacy, bioethics, and contemporary values. She is recognized for scholarship about legal philosophy, women's rights, and race relations. She began her legal career as an Associate Attorney with Cravath, Swaine & Moore. In 2018, Allen was elected President of the American Philosophical Association, Eastern Division. She was elected to the American Academy of Arts and Sciences in 2019 and 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 four books and more than a hundred 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 has been an active member of editorial, advisory, and charity boards, and in professional organizations relating to her expertise in law, philosophy and health care. She chairs the board of the Electronic Privacy Information Center and is on the board of the National Constitution Center. She is a member of the Pennsylvania Board of Judges responsible for setting guidelines for Continuing Judicial Education in the Commonwealth.

### Expertise

Privacy Law, Information Law, Bioethics, 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
- Higher Education Law and Policy

### Representative Publications

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

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

*Synthesis and Satisfaction: The Impact of American Philosophy on India's Constitutional Privacy Right*, 20 THEORETICAL INQ. L. 343 (2019).

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

*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 is a leading scholar of insurance law and policy and a devoted teacher. His research explores insurance law, institutions, and markets using methods from history, economics, psychology, and sociology. His 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. Baker served as the Reporter for the American Law Institute's Restatement of the Law Liability Insurance and the Director of the Health Insurance Exchange Research Group of Penn's Leonard Davis Institute of Health Economics. He is also a co-founder of Picwell, a data analytics company that builds tools to match people to insurance plans. Baker was the recipient of the A. Leo Levin Award for Excellence in an Introductory Course at Penn Law in 2014. 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. His current research focus includes cyber liability and insurance, aggregate insurance litigation, and secondary insurance markets.

#### 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, The Wharton School

#### Education

JD 1986, AB 1982 Harvard University

#### Courses Taught

- Torts
- The 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 Griffith).

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

*Uncertainty > Risk: Lessons for Legal Thought from the Insurance Runoff Market*, 61 B.C.L. REV. (forthcoming 2020).

*Behavioral Finance, Decumulation and the Regulatory Strategy for Robo-Advice*, in *THE DISRUPTIVE IMPACT OF FINTECH ON RETIREMENT SYSTEMS* 149 (Julie Agnew & Olivia Mitchell eds., Oxford 2019) (with Benedict Dellaert).

*Regulating Robo Advice Across the Financial Services Industry*, 103 IOWA L. REV. 713 (2018) (with Benedict 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, technology, and business-government relations in policymaking. He is a public member of the Administrative Conference of the United States and Chair of its Committee on Rulemaking. 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 on a committee of the National Academies of Sciences, Engineering, and Medicine studying ways to improve the inspection of offshore oil and gas development facilities. 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
- Regulatory Analysis and Decision-Making

### Representative Publications

*AI in Adjudication and Administration*, 85 BROOK. L. REV. (forthcoming 2020) (with Lavi Ben-Dor).

*Contracting for Algorithmic Accountability*, 6 ADMIN. L. REV. ACCORD (forthcoming 2020) (with Erik Lampmann).

*Deploying Machine Learning for a Sustainable Future*, in A BETTER PLANET: FORTY BIG IDEAS FOR A SUSTAINABLE FUTURE 200 (Daniel Esty ed., Yale 2019).

*Transparency and Algorithmic Governance*, 71 ADMIN. L. REV. 1 (2019) (with David Lehr).

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



## 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. He also contributes to CTIC's work on comparative competition law. 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 published papers in *Stanford Law Review*, *Columbia Law Review*, and *University of Chicago Law Review*.

### Expertise

Law and Economics, Health Care Policy, Health Care Regulation, Health Economics, Business Entities, Class Actions, Criminal Law, Finance, Insurance Law, Jury Decision Making, Labor Economics, Mental Health Law, Product Liability Litigation, Regulated Industries, Torts

### 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

*Requiem for a Paradox: The Dubious Rise and Inevitable Fall of Hipster Antitrust*, 51 ARIZ. ST. L. J. 293 (2019) (with Joshua Wright, Elyse Dorsey & Jan Rybnicek).

*Empirical Law and Economics*, in 1 OXFORD HANDBOOK OF LAW AND ECONOMICS: METHODOLOGY AND CONCEPTS 29 (Francesco Parisi ed., Oxford 2017) (with Jonah 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 Hylton eds., Edward Elgar 2012) (with John MacDonald & Thomas Stratmann).

*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, the relationship between free speech and the Internet, the complexities of the Freedom of Information Act, and the abuses of the "war on terror." Kreimer has also represented plaintiffs in an array of constitutional litigation. He was awarded the 2011 Beacon Award for Exemplary Pro Bono Service in 2011 and the A Leo Levin Teaching Award in 2006 at Penn Law.

### 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 in the 21<sup>st</sup> Century
- 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* 135 (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).



### **Peter Decherney**

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

Peter Decherney's research focuses primarily on the law's impact on media industries, having authored or edited six books on copyright, Hollywood, and other topics. He is the Faculty Director of Penn's Online Learning Initiative and the Director of Penn's Cinema and Media Studies Program. Decherney 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 contributor to *Inside Higher Ed*.

### **Expertise**

Cinema and Media Studies  
Copyright

### **Secondary Appointments**

Annenberg School for Communication

### **Education**

PhD 2000 New York University  
BA 1993 Vassar College



### **Ezekiel Dixon-Román**

Associate Professor of Social Policy, School of Social Policy and Practice

Broadly conceived, Ezekiel Dixon-Román's research rethinks and reconceptualizes the technologies of quantification from a critical theoretical lens. His research also focuses on how power and inequality are reproduced, especially in human learning and development, and the ways in which sociotechnical systems of quantification are working on, with, and in the body to generatively form and shape the movement and flow of power, difference, and inequality. He is Faculty Director of the Master of Science in Social Policy Program (MSSP), Chair of the Data Analytics for Social Policy Certificate of the MSSP Program, and leads the Social Policy and Practice-Aliadas en Cadena Initiative, which is an evaluation of the Venezuela-based NGO's flagship program that provides training and certification in information and communication technologies for vulnerable women. Dixon-Román is also a faculty affiliate of Penn's Latin American & Latino Studies; Gender, Sexuality, and Women's Studies; and the Warren Center for Network & Data Sciences, as well as an Honorary Faculty Member in the Institute for Gender, Race, Sexuality and Social Justice at the University of British Columbia.

### **Expertise**

Cultural Studies of Education, Quantification, and Social Policy, Philosophy of Science, Critical Theories of "Difference"

### **Secondary Appointments**

Graduate School of Education  
Department of Africana Studies  
Annenberg School for Communication

### **Education**

PhD 2007, MA 2004 Fordham University  
MA 2002 The University of Chicago  
BA 2000 North Carolina Central University





### Gerald Faulhaber

Professor Emeritus of Business Economics and Public Policy, The Wharton School

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

#### Expertise

Applied Microeconomics, Industrial Organization, Network Neutrality for the Internet, File Sharing and Copyright Fair Use, 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, Department of Business Economics and Public Policy, The 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, the European Union, Japan, South Africa, and the United States. He has also published two textbooks, *Economics of Regulation and Antitrust* (5th ed., MIT 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;  
Co-founding Director, The Warren Center for Network & Data Sciences

Michael Kearns's primary research interests are 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. In 2019, Kearns co-authored *The Ethical Algorithm: The Science of Socially Aware Algorithm Design* (Oxford 2019) (with Aaron Roth).

#### **Expertise**

Machine Learning, Algorithms and Complexity

#### **Secondary Appointments**

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

#### **Education**

PhD 1989 Harvard University  
BS 1985 University of California, Berkeley

### **Annie Liang**

Assistant Professor of Economics, School of Arts & Sciences

Annie Liang's research focuses primarily on economic theory and the application of machine learning methods for model building and evaluation. Prior to becoming an Assistant Professor of Economics, Liang served as a Postdoctoral Researcher for Microsoft Research New England.

#### **Expertise**

Economic Theory, Machine Learning

#### **Education**

PhD 2016 Harvard University  
SB 2011 Massachusetts Institute of Technology





### Aviv Nevo

George A. Weiss and Lydia Bravo Weiss University Professor; Professor of Marketing, The 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 areas of research include health economics, healthcare, telecommunications, and real estate brokerages, as well as the demand for packaged goods and its implications for mergers and market power. Nevo served as Chief Economist of 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



### 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. Turow is an elected Fellow of the International Communication Association and received a Distinguished Scholar Award by the National Communication Association. He has authored eleven books, edited five, and written more than 150 articles on mass media industries. His most recent book is titled *The Aisles Have Eyes: How Retailers Track Your Shopping, Strip Your Privacy, and Define Your Power* (Yale 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, The Wharton School

Kevin Werbach's research focuses on the legal, business, and policy implications of emerging technologies. His interests include artificial intelligence and business analytics, blockchain and distributed ledger technologies, gamification (applying digital game design techniques to business), and telecommunications regulation. 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 500,000 students worldwide have registered for his pioneering Coursera massively open online course (MOOC). In 2018, he published *The Blockchain and the New Architecture of Trust* (MIT 2018).

### 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



### Lauren Steinfeld

Lecturer-in-Law, University of Pennsylvania Carey Law School; Chief Privacy Officer, Penn Medicine; Senior Advisor on Privacy, University of Pennsylvania

Lauren Steinfeld serves as Chief Privacy Officer for Penn Medicine. In this position, Steinfeld leads and oversees the HIPAA compliance program and other privacy initiatives for Penn's six hospitals, over 250 physician practices, and the School of Medicine research program. In addition, Steinfeld teaches a Privacy Law course at Penn Law with Professor Christopher Yoo. She previously served as Chief Privacy Officer for the University of Pennsylvania. Prior to joining Penn, she worked at the Office of Management and Budget as the Associate Chief Counselor for Privacy and before that, as Attorney Advisor to Federal Trade Commissioner Mozelle Thompson.

### Education

JD 1992 New York University School of Law

BA 1989 University of Pennsylvania



### **Rakesh Vohra**

George A. Weiss and Lydia Bravo Weiss University Professor of Economics and Electrical and Systems Engineering; Co-founding Director, The Warren Center for Network & Data Sciences

Rakesh Vohra is an expert on mechanism design whose interdisciplinary work on game theory is at the intersection of engineering and economics. His research on allocation of scarce resources has been important in the advancement of game, pricing, and auction theory. Vohra holds primary appointments in the Department of Economics and the Department of Electrical and Systems Engineering along with a secondary appointment in the Department of Computer and Information Science. He came to Penn as part of the Penn Integrates Knowledge program, which is a University-wide initiative to integrate research across different educational disciplines. Prior to joining Penn, Vohra was the John L. and Helen Kellogg Professor of Managerial Economics & Decision Sciences at Northwestern University.

### **Expertise**

Game Theory, Mechanism Design, Operations Research

### **Secondary Appointments**

Computer and Information Science Department, School of Engineering and Applied Science

### **Education**

Ph.D. 1985, University of Maryland

M.Sc. 1981, London School of Economics

B.Sc. 1980, University College London



### **Victor Boyajian**

Partner, Dentons

Victor Boyajian heads Dentons's Global Venture Technology practice and legacy Technology, Media and Telecommunications sector. A recognized leader in his field, Boyajian represents emerging growth technology companies and Fortune 500 companies in a broad array of venture capital, private equity, securities, and strategic transactions around the globe. He counsels senior executives, boards of directors, and venture firm principals on a wide range of issues, including business strategy, finance, mergers and acquisitions, executive compensation, board governance, intellectual property and litigation strategy. Boyajian has also been recognized for his deep network among venture firms and investment banks. Boyajian's clientele reflects a cross-section of industries, including software, digital media, mobile and Internet/e-commerce.

### **Education**

JD 1985 University of Pennsylvania Carey Law School

BA 1982 University of Rochester



### **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 Science Campus Mannheim Taxation (Mannheim Taxation). He is also an Adjunct Professor at the Mannheim Business School and a research associate at the Leibniz Centre for European Economic Research (ZEW) in Mannheim.

### **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 private equity firm. 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. He is a member of the Board of Overseers at University of Pennsylvania Carey Law School. He is also a member of the Executive 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 a U.S. Circuit Judge for the Third Circuit. Prior to that appointment, Judge Jordan served as a U.S. District Judge for the District of Delaware from 2002 to 2006. He was a law clerk for Judge James L. Latchum, U.S. District Court for the District of Delaware, and an Assistant U.S. 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 Carey Law School

PhD 1999 Cornell University

BS 1993 Michigan State University





### **Trevor Cloak**

Member, Cozen O'Connor

From the food and beverage industry to the software and technology sector, Trevor Cloak acts as an advocate for clients operating in a variety of disciplines with respect to their intellectual property transactional, prosecution, enforcement, and litigation needs. He has experience representing clients in all aspects of intellectual property due diligence, and in drafting and negotiating technology, software, and software-as-a-service agreements. Cloak teaches Introduction to Technology Law and Ethics.

### **Education**

JD 2008 Vanderbilt Law School

BS 2005 Middlebury College



### **Gayle Gowen**

Lecturer-in-Law, Legal Practice Skills Senior Lecturer, University of Pennsylvania Carey Law School

Gayle Gowen teaches Legal Practice Skills, a mandatory year-long class for first year law students. Prior to joining Penn, she was a patent attorney at Schott, P.C. Before that, she practiced as both a patent attorney and a commercial litigator at Morgan, Lewis & Bockius in Philadelphia. Gowen also served as a law clerk to the Honorable Marjorie O. Rendell of the U.S. Court of Appeals for the Third Circuit. Gowen teaches Introduction to Technology Law and Ethics.

### **Education**

JD 1998 University of Pennsylvania Carey Law School

MS 1995 Carnegie Mellon University

BS 1991 Massachusetts Institute of Technology



### Leon Gwaka

#### Research Fellow

Leon Gwaka's research focuses on digital infrastructure transformation in resource constrained communities and its impact on achieving the Sustainable Development Goals. His work is currently involved with the 1 World Connected project under the supervision of Professor Christopher Yoo.

With funding from USAID and ResilientAfrica Network, Gwaka led the implementation of the MOSMAC project in Beitbridge, Zimbabwe and conducted a critical impact assessment of this intervention for his PhD. This project was selected in the top ten of BCFN Young Earth Solutions 2017. Between 2013-2015, Gwaka trained as a professional accountant in South Africa and taught taxation.

#### Education

PhD 2019 University of the Western Cape

M Tech 2015 Cape Peninsula University of Technology



### Sangyong Han

#### Research Fellow

Sangyong Han's primary research interests focus on the impacts of technological changes on telecommunications and media industries, policy makers, and overall society. 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 worked on an FCC Broadband Deployment Advisory Committee project for Professor Christopher Yoo and has been working on comparative studies on broadband deployments around world.

Han received his PhD in Mass Communications from Pennsylvania State University, where he participated in various research projects including the National Science Foundation (NSF) Project: A National Research Agenda for Broadband at the Institute for Information Policy in the Donald P. Bellisario College of Communications. Before coming 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 use of mobile health applications by pregnant women and healthcare workers in Nepal, mobile phone use by newly connected communities in Rwanda, ICT practices of immigrant women entrepreneurs in New York City, broadband adoption by communities of low-socioeconomic status in the U.S., and social media use by media organizations in Afghanistan. Haseki was a USAID Research and Innovation fellow at the University of Cape Town in South Africa, where she worked on an ICT-for-development project. As a USAID Youlead! Fellow, Haseki 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

Non-Resident Research Fellow

Sharada Srinivasan's research focuses on the 1 World Connected project, specifically on empirical validation of innovative initiatives that address supply-and-demand-side challenges to improve broadband adoption globally. She develops case studies on innovative community-level projects and studies their relative cost-effectiveness. Srinivasan communicates these insights to academics, policymakers, and investors. Her recent work focuses on fixed wireless deployments in the U.S. and the impact of a telemedicine deployment in Vanuatu.

Srinivasan is an active participant in the intersessional work of the United Nations Internet Governance Forum. In 2018-19, she co-led the production of the Connecting and Enabling the Next Billions - Phase IV final output report. Srinivasan is also part of the EQUALS Research Group focused on issues pertaining to Internet access and serves on the IEEE Humanitarian Activities Committee's Assessment sub-committee.

In the past, she has engaged with regulatory barriers to Internet deployment in the developing world, cybersecurity, encryption policy, and network neutrality at internship stints with the Global Public Policy Institute, Berlin and the Centre for Internet and Society, Bangalore. She was an Amazon Fellow at the tenth UN Internet Governance Forum and a Global Internet Governance Fellow at the European Summer School of Internet Governance 2015. Srinivasan joined the World Bank Group as part of their Young Professionals Program in fall 2019.

#### Education

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



### **Caroline Olson**

#### **Managing Director**

As Managing Director, Caroline 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 student and practitioner-oriented events, social media strategy, and providing innovative approaches to the growth and development of 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 in addition to working in human resources. Prior to 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





# Major Conferences

Big Data and Competition Law: Setting the Agenda

Transactional Scripts and Legal Order: A “Smart Contracts” Workshop

*University of Pennsylvania Law Review* Symposium: The Post-Chicago Antitrust Revolution

Cyber Insurance and Cyber Resilience: A Workshop for Researchers and Practitioners

*Journal of Law & Innovation* Symposium: Rethinking Innovation Policy — The Role of the State

The Federalist Society Symposium: Regulating Big Tech

## Big Data and Competition Law: Setting the Agenda

September 7, 2019

Beijing, China

As a part of their continuing multi-year project, CTIC, the Competition Law Centre of the University of International Business and Economics (UIBE), and the Mannheim Centre for Competition and Innovation (MaCCI) cohosted a conference at the Penn Wharton China Center on antitrust and big data. Conference attendees engaged in an interdisciplinary discussion about the technological and economic foundations of competition law as well as corporate and government perspectives of big data in practice.



Left: Christopher Yoo

Right: Jiemin Sheng





Conference attendees



Darren Tucker, Alden Abbott



Xinyue Hu

## Welcome

### Yong Huang

Professor, School of Law, University of International Business and Economics

### Christopher Yoo

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

### Thomas Fetzer

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

## Technological Foundations

### Speakers

#### Neil Chilson

Senior Research Fellow for Technology and Innovation, Charles Koch Institute; Former Acting Chief Technologist, Federal Trade Commission

#### Heiko Paulheim

Chair for Data Science, University of Mannheim School of Business Informatics and Mathematics

#### Dengji Zhao

Assistant Professor, ShanghaiTech University School of Information Science and Technology

## Economic Foundations

### Speakers

#### Marc Bourreau

Professor of Economics, Télécom ParisTech

#### Jiong Gong

Professor of Economics, University of International Business and Economics

#### Guofu Tan

Professor of Economics, University of Southern California

## Big Data in Practice: Government Perspectives

### Speakers

#### Alden Abbott

General Counsel, Federal Trade Commission

#### Thomas Weck

Lead Analyst, German Monopolies Commission

#### Xinyue Hu

Deputy Director Level Official, Anti-Monopoly Bureau, State Administration for Market Regulation

#### Qianting Chen

Principal Staff Member, Division of Abuse Investigation, Anti-Monopoly Bureau, State Administration for Market Regulation



Jiang Shan, Yong Huang, Thomas Fetzer

## Big Data in Practice: Corporate Perspectives

### Speakers

#### Thomas Fetzer

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

#### Darren Tucker L'98

Chair, Antitrust Practice Group, Vinson & Elkins

#### Shufeng Cui

Director, Competition Research Centre, Alibaba Research Institute



Top: Qianting Chen

Bottom: Neil Chilson, Heiko Paulheim, Dengji Zhao



## Transactional Scripts and Legal Order A “Smart Contracts” Workshop

October 11, 2019

This workshop fostered conversation on the practical realities of smart contracts among attendees from industry, scholars from law and computer science, and practicing attorneys. It brought together sectors that engage too rarely in a concrete way. The workshop was co-sponsored by CTIC and the Ripple Project, a joint effort between The Wharton School and the School of Engineering and Applied Science at Penn.



Left: David Hoffman



Right: Jason Allen, Andrew Hinkes, Aaron Wright





Workshop attendees



Amanda Gould L'20, Chrissy Pak L'21



Kevin Werbach, Christopher Yoo

## Two Use Cases

### [Agoric: Thirty Years of Smart Contracts and Counting](#) **Bill Tulloh**

Economist, The Agoric Team

### [Clause's Smart Legal Contracts](#)

#### **Houman Shadab**

Professor of Law, New York Law School

## Technological Complexities

### [The "Complexity Tax"](#)

#### **Shaanan Cohny LPS'13 MSE'16 ML'19 PhD'20**

Postdoctoral Research Associate, Center for IT Policy, Princeton University

### [New Developments](#)

#### **Steven Goldfeder**

Postdoctoral Researcher, Cornell Tech; Co-Founder, Offchain Labs

## A Third Use Case

### [Understanding the Smart Contract Stack: A View into LSTA's Automated Revolving Credit Facility](#)

#### **Bridget Marsh**

Executive Vice President and Deputy General Counsel, Loan Syndications & Trading Association

#### **Aaron Wright**

Associate Clinical Professor of Law, Benjamin N. Cardozo School of Law

## Legal Ordering

### [Transactional Scripts and Legal Order](#)

#### **David Hoffman**

Professor of Law, University of Pennsylvania Carey Law School

### [The Agentive Role of Smart Contracts](#)

#### **Jason Allen**

Senior Research Fellow, Humboldt-Universität zu Berlin

## Additional Participants

### **Joseph Bonneau**

Assistant Professor of Computer Science, Courant Institute of Mathematical Sciences, New York University

### **James Grimmelmann**

Tessler Family Professor of Digital and Information Law, Cornell Law School

### **Sarah Hammer WG'99 L'11**

Managing Director, Stevens Center for Innovation in Finance, The Wharton School, University of Pennsylvania

### **Andrew Hinkes**

Of Counsel, Carlton Fields

### **Gregory Klass**

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

### **Praveen Kosuri**

Associate Dean for Clinical Education, Practice Professor of Law, University of Pennsylvania Carey Law School

### **Stuart Levi**

Partner, Co-head of Intellectual Property and Technology Group, Skadden, Arps, Slate, Meagher & Flom LLP and Affiliates

### **Charles Mooney**

Charles A. Heimbald, Jr. Professor of Law, University of Pennsylvania Carey Law School

### **Jeremy Sklaroff L'18 WG'18**

Associate, Davis Polk & Wardwell LLP

### **Andrea Tosato**

Associate Professor, University of Nottingham; Adjunct Lecturer, University of Pennsylvania Carey Law School

### **Peter Van Valkenburgh**

Research Director, Coin Center

### **Kevin Werbach**

Professor of Legal Studies and Business Ethics, The Wharton School, University of Pennsylvania

### **Tess Wilkinson-Ryan L'05 GR'08**

Professor of Law and Psychology, University of Pennsylvania



Bill Tulloh, Charles Mooney

**David Wishnick**

CTIC Academic Fellow, University of Pennsylvania Carey Law School

**Christopher Yoo**

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

**Tal Zarsky**

Visiting Scholar, University of Pennsylvania Carey Law School; Professor of Law, University of Haifa Faculty of Law



Top: Shaanan Cohney, Tess Wilkinson-Ryan, Kevin Werbach  
Bottom: Andrea Tosato, Alex Altieri

## *University of Pennsylvania Law Review* Symposium: The Post-Chicago Antitrust Revolution

October 11-12, 2019

This year, the annual *University of Pennsylvania Law Review* Symposium focused on antitrust and policy. Leading scholars in antitrust and economics critically evaluated the fit between Chicago School assumptions and modern economic evidence and theory. The scholars proposed approaches to enforcement that rely on case- and industry-specific evidence and analysis. The Symposium was co-sponsored by CTIC and the Washington Center for Equitable Growth.



Left: Dean Theodore Ruger

Right: Herbert Hovenkamp, Fiona Scott Morton





Symposium attendees





Howard Shelanski, Jonathan Baker, Andrew Gavil



Howard Shelanski, William Rogerson, Tim Wu, Robert Lande, Jeffrey Wilder, Marina Lao

October 11, 2019

## PANEL 1: THE HISTORY AND FRAMING OF THE CHICAGO SCHOOL

### Framing the Chicago School of Analysis

#### Herbert Hovenkamp

James G. Dinan University Professor, University of Pennsylvania

#### Fiona Scott Morton

Theodore Nierenberg Professor of Economics, Yale School of Management

#### Discussants

##### Jonathan Klick

Professor of Law, University of Pennsylvania Carey Law School

##### Laura Phillips Sawyer

Assistant Professor of Business Administration, Harvard Business School

##### Joshua Wright

University Professor of Law, George Mason University Antonin Scalia Law School; Former Commissioner, Federal Trade Commission

#### Moderator

##### Christopher Yoo

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

## PANEL 2: MONOPOLY POWER

### Nascent Competitors

#### Tim Wu

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

### Antitrust Enforcement, Regulation and Digital Platforms

#### William Rogerson

Charles E. and Emma H. Morrison Professor, Northwestern University

#### Howard Shelanski

Professor of Law, Georgetown University Law Center; Partner, David Polk & Wardwell LLP

#### Discussants

##### Jeffrey Wilder

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

##### Robert Lande

Venable Professor of Law, University of Baltimore School of Law

#### Moderator

##### Marina Lao

Board of Visitors Research Scholar, Edward S. Hendrickson Professor of Law, Seton Hall School of Law

## KEYNOTE ADDRESS

#### Jon Leibowitz

Former Chairman, Federal Trade Commission; Counsel, Davis Polk & Wardwell LLP



Jon Leibowitz



Carl Shapiro, Michael Carrier, Barbara Blank, Mikhael Shor

October 12, 2019

### PANEL 3: MERGER UNDERENFORCEMENT

#### The Elusiveness of Efficiencies in Mergers: Implications for Merger Analysis & Enforcement

##### Nancy Rose

Department Head and Charles P. Kindleberger Professor of Applied Economics, Massachusetts Institute of Technology

##### Jonathan Sallet

Benton Senior Fellow, Benton Institute for Broadband & Society

#### Purposive and Non-Purposive Strategic Conduct, Oligopoly Coordination, and Antitrust

##### Jonathan Baker

Research Professor of Law, American University Washington College of Law

##### Discussants

##### Cory Capps

Partner, Bates White Economic Consulting

##### Katja Seim

Professor of Economics, Yale School of Management

##### Moderator

##### Joseph Harrington

Patrick T. Harker Professor; Department of Business Economics and Public Policy; The Wharton School, University of Pennsylvania

### PANEL 4: ANTITRUST AND PATENT HOLDUP

#### The Role of Antitrust in Preventing Patent Holdup

##### Carl Shapiro

Transamerica Chair in Business Strategy Emeritus, Walter A. Haas School of Business, and Professor of Economics, University of California, Berkeley

##### Discussants

##### Barbara Blank

Deputy Assistant Director for Anticompetitive Practices, Bureau of Competition, Federal Trade Commission

##### Michael Carrier

Distinguished Professor of Law, Rutgers Law School; Visiting Professor, University of Pennsylvania Carey Law School

##### Mikhael Shor

Associate Professor of Economics, University of Connecticut

##### Moderator

##### Jorge Contreras

Professor, University of Utah S.J. Quinney College of Law

#### The Solution to America's Monopoly Problem: Not Less, but Better Economics

##### Michael Kades

Director, Markets and Competition Policy, Washington Center for Equitable Growth

### PANEL 5: RESETTling ANTITRUST PRESUMPTIONS

#### Decision Theory, Presumptions, and Evidentiary Burdens in Antitrust Analysis

##### Andrew Gavil

Professor of Law, Howard University School of Law

##### Steven Salop BA'68

Professor of Economics and Law, Georgetown University Law Center

#### Competition Law as Common Law: American Express and the Evolution of Antitrust

##### Michael Katz

Sarin Chair in Strategy and Leadership Emeritus, Walter A. Haas School of Business, and Professor of Economics, University of California, Berkeley

##### Discussants

##### Alan Meese

Ball Professor of Law, William & Mary Law School

##### John Newman

Associate Professor of Law, University of Miami School of Law

##### Moderator

##### Howard Langer L'77

Founding Partner, Langer, Grogan & Diver P.C.

## Cyber Insurance and Cyber Resilience: A Workshop for Researchers and Practitioners

December 13, 2019

This workshop brought together researchers and practitioners in the world of cyber insurance and cyber resilience to discuss topics facing the field today. The workshop was co-hosted by CTIC and the Warren Center for Network & Data Sciences.



Left: Tom Baker, Robin Warren, Fred Warren

Right: Tyler Moore, Wade Chmielinski



Workshop attendees





Matthew Prevost, Tom Baker, Emma Lalovic, Annamaria Landaverde



Rakesh Vohra, Matthew Prevost

## Setting the Stage: The State of the Market for Insuring Cyber Risks and Pressing Concerns

### Matthew Prevost

Senior Vice President, Cyber Product Line Manager, Chubb

### Annamaria Landaverde

Senior Vice President, Cyber Practice Lead, Munich Reinsurance America

### Emma Lalovic

Manager, High Hazard Underwriting, FM Global

### Moderator

### Tom Baker

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

## Technological Developments: Cyber Risks and Cyber Security

### Tyler Moore

Tandy Associate Professor of Cyber Security & Information Assurance, Tandy School of Computer Science, University of Tulsa

### Daniel Woods

Postdoctoral Fellow, Department of Computer Science, University of Innsbruck

### Wade Chmielinski

Assistant Vice President, Cyber Consultant, FM Global

### Moderator

### Christopher Yoo

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

## The Economics of Networks: Cyber Security, Cyber Insurance, and the Terrorism Analogy

### Ben Golub

Associate Professor of Economics, Harvard University

### Mingyan Liu

Peter and Evelyn Fuss Chair of Electrical and Computer Engineering, University of Michigan

### Alex Braun

Vice Director, Institute of Insurance Economics, University of St. Gallen; Senior Fellow, Wharton Risk Center, The Wharton School, University of Pennsylvania

### Kyle Logue

Douglas A. Kahn Collegiate Professor of Law, University of Michigan Law School

### Moderator

### Rakesh Vohra

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

### Remarks

### Anja Shortland

Professor in Political Economy, King's College London





Mingyan Liu

### Policy Levers to Improve Cyber Security

#### Brittany Baker

Principal Actuarial Consultant, CyberCube

#### Bruce Kobayashi

Professor of Law, George Mason University Antonin Scalia Law School; Former Director, Bureau of Economics, Federal Trade Commission

#### Bryan Choi

Assistant Professor of Law, The Ohio State University Moritz College of Law

#### Shauhin Talesh

Professor of Law, University of California Irvine School of Law

#### Moderator

#### Sasha Romanosky

Policy Researcher, RAND Corporation



Top: Alex Braun, Ben Golub

Bottom: Asaf Lubin, Anja Shortland, Shauhin Talesh, Emma Lalovic

## *Journal of Law & Innovation* Symposium: Rethinking Innovation Policy — The Role of the State

January 24, 2020

Government policy and technological innovation are inextricably intertwined. From the advent of the Internet to advances in modern fintech, the state has played a meaningful but underexplored role. At its third annual symposium, the *Journal of Law & Innovation* explored the mechanisms through which the state has spurred or hindered such innovations. The symposium sought answers to critical questions, including in which sectors policy and regulation should play an active role and whether government involvement in fostering innovation is always desirable.



Left: Roger Noll, Herbert Hovenkamp, Christopher Yoo

Right: Shane Greenstein



Journal members with Christopher Yoo and David Wishnick





Gus Hurwitz



David Wishnick, Hilary Allen, Tom Baker

## Opening Remarks

### Saba Bajwa L'20

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

### Michael Buchwald L'20

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

### Christopher Yoo

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

## Inconvenient Truths: Interpreting the Origins of the Commercial Internet

### Shane Greenstein

Martin Marshall Professor of Business Administration, Harvard Business School

### Commentator

### Janet Abbate MA'88 PhD'94

Professor, Virginia Polytechnic Institute and State University

## Regulation as Partnership

### Gus Hurwitz

Associate Professor of Law, Nebraska College of Law

### Commentator

### David Zaring

Professor of Legal Studies and Business Ethics, The Wharton School, University of Pennsylvania

## Experimental Strategies for Regulating Fintech

### Hillary Allen

Associate Professor of Law, American University Washington College of Law

### Commentator

### Tom Baker

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

## Rethinking the Privacy/Innovation Conundrum

### Tal Zarsky

Visiting Scholar, University of Pennsylvania Carey Law School; Professor of Law, University of Haifa Faculty of Law

### Commentators

### Katherine Strandburg

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

### Yafit Lev-Aretz SJD'14

Assistant Professor of Law, Zicklin School of Business, Baruch College

## Innovation or Jobs? An Inconvenient Truth About Public Financing for "Innovation"

### Camilla Alexandra Hrdy

Associate Professor of Law, University of Akron School of Law

### Commentator

### Michael Abramowicz

Oppenheim Professor of Law, George Washington University School of Law



Camilla Hrdy

### Policy Interventions in Markets Involving Complex Technologies

**Roger Noll**

Professor of Economics Emeritus, Stanford University

**Commentator**

**Herbert Hovenkamp**

James G. Dinan University Professor, University of Pennsylvania

### Closing Remarks

**Christopher Yoo**

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

**David Wishnick**

CTIC Academic Fellow, University of Pennsylvania Carey Law School



Top: Symposium attendees

Bottom: Tal Zarsky



## The Federalist Society Symposium: Regulating Big Tech

March 4, 2020

Fake news, hate speech, free speech, and monopolies. Big Tech is under fire with increasing fervor and regularity. Is this fair? Is there really a problem, and if so, and what should be done about it? The symposium brought together experts from academia, government, think tanks, and the private sector for a robust debate on these issues.



Alden Abbott



Neil Chilson, Nadine Strossen, Adam Candeub, Carrie Goldberg, Arthur Milikh



Christopher Yoo, Salil Mehra, Roger Alford, Jay Himes



Symposium attendees

## Keynote Address

### Alden Abbott

General Counsel, Federal Trade Commission

## Do We Need to Rethink Antitrust for Big Tech?

### Moderator

#### Christopher Yoo

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

### Discussants

#### Roger Alford

Professor of Law, University of Notre Dame Law School; Former Deputy Assistant Attorney General, Antitrust Division, US Department of Justice

#### Jay Himes

Partner, Labaton Sucharow

#### Sahil Mehra

Charles Klein Professor of Law and Government, Temple University Beasley School of Law

## Should Social Media Platforms be Viewpoint Neutral? Should the Government Care?

### Moderator

#### Neil Chilson

Senior Research Fellow for Technology and Innovation, Charles Koch Institute; Former Acting Chief Technologist, Federal Trade Commission

### Discussants

#### Nadine Strossen

John Marshall Harlan II Professor of Law, Emerita, New York Law School; Former President, American Civil Liberties Union

#### Adam Candeub L'95

Professor of Law, Michigan State University College of Law

#### Arthur Milikh

Associate Director, B. Kenneth Simon Center for American Studies and AWC Family Foundation Fellow, The Heritage Foundation

#### Carrie Goldberg

Attorney, C.A. Goldberg





Center for Technology, Innovation and Competition





# Events and Programs

Current and Emerging Issues in Law and Technology

Seismic Shifts in Privacy: California and Beyond

U.S. Patent and Trademark Office Director Andrei Iancu

Book Talk, *The Ethical Algorithm: The Science of Socially Aware Algorithm Design*

The Rise in Antitrust Scrutiny of Big Tech: Transatlantic Perspectives

Law and Technology Scholarship Workshop Series

# Current and Emerging Issues in Law and Technology

October 2, 2019



Shyamkrishna Balganesh, Cynthia Dahl, Gideon Parchomovsky, Christopher Yoo

CTIC faculty explored new and upcoming developments in law and technology. They focused specifically on the Supreme Court's docket for the October 2019 term, newly enacted and pending legislation, and other major changes to the legal landscape affecting innovation and related fields. The event included discussion about Supreme Court cases *Georgia v. Public Resource.Org Inc.*, *Iancu v. Brunetti*, and *Thryv, Inc. v. Click-To-Call Technologies LP*.

## Discussants

### **Shyamkrishna Balganesh**

Professor of Law, University of Pennsylvania Carey Law School

### **Cynthia Laury Dahl**

Practice Professor of Law, University of Pennsylvania Carey Law School

### **Gideon Parchomovsky**

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

### **Christopher Yoo**

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

## Seismic Shifts in Privacy: California and Beyond

November 18, 2019

When the California Consumer Privacy Act (CCPA) went into effect on January 1, 2020, it represented the most sweeping change in U.S. privacy law in years, affecting all companies that serve California residents and meet certain minimal requirements. The new law reaches many companies that had previously not been subject to significant privacy requirements. Many experts are predicting that other states will soon follow suit. Penn faculty and other experts discussed the impact of the CCPA and what to expect next on the privacy frontier.

### Moderator

#### Christopher Yoo

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

### Panelists

#### Seamus Duffy

Partner, Akin Gump Strauss Hauer & Feld LLP

#### Jannie Lau L'02

Chief Legal Officer, General Counsel and Corporate Secretary, InterDigital, Inc.

#### Lisa Sotto L'87

Partner, Hunton Andrews Kurth LLP

#### Lauren Steinfeld BA'89

Chief Privacy Officer, Penn Medicine; Lecturer-in-Law, University of Pennsylvania Carey Law School



Top: Seamus Duffy, Jannie Lau, Lisa Sotto, Lauren Steinfeld, Christopher Yoo

Bottom: Program attendees

## U.S. Patent and Trademark Office Director Andrei Iancu

December 3, 2019

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USPTO Director Andrei Iancu and event attendees

Andrei Iancu, Director of the U.S. Patent and Trademark Office and Under Secretary of Commerce for Intellectual Property, addressed a group of academics, students, entrepreneurs, and private practitioners. Iancu shared his insights about the patent system and discussed possible reforms. The event was co-hosted by the Penn Center for Innovation and the Detkin Intellectual Property and Technology Legal Clinic.

## Book Talk, *The Ethical Algorithm: The Science of Socially Aware Algorithm Design*, with Penn Professors Michael Kearns and Aaron Roth

January 29, 2020

Many recent mainstream media articles and popular books have raised alarm over anti-social algorithmic behavior, especially regarding machine learning and artificial intelligence. The concerns include leakage of sensitive personal data by predictive models, algorithmic discrimination as a side-effect of machine learning, and inscrutable decisions made by complex models. An explosion of recent research in areas such as differential privacy, algorithmic fairness, and algorithmic game theory is forging a new science of socially aware algorithm design.

This program provided Michael Kearns and Aaron Roth the opportunity to discuss their new book, which places these developments in a broader societal context. Ezekiel Dixon-Roman and Marco Enriquez offered insightful commentary.

### Opening Remarks

#### Cary Coglianese

Edward B. Shils Professor of Law and Professor of Political Science, University of Pennsylvania

### Speakers

#### Michael Kearns

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

#### Aaron Roth

Professor, Computer and Information Science, School of Engineering and Applied Science, University of Pennsylvania

### Commentators

#### Ezekiel Dixon-Román

Associate Professor of Social Policy, School of Social Policy and Practice, University of Pennsylvania

#### Marco Enriquez

Senior Applied Mathematician, Office of Data Science, Division of Economic and Risk Analysis, U.S. Securities and Exchange Commission

### Moderator

#### Christopher Yoo

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



Top: Program attendees  
Middle: Michael Kearns  
Bottom: Aaron Roth



# The Rise in Antitrust Scrutiny of Big Tech: Transatlantic Perspectives

February 18, 2020



Thomas Fetzer, Herbert Hovenkamp, Christopher Yoo

Attitudes towards big tech have undergone a sea change. Regarded for two decades as paragons of enterprise and innovation, digital platforms are now the subject of investigations by U.S. antitrust enforcement authorities and multiple European enforcement actions, including two multibillion-dollar judgments against Google. In addition, calls for subjecting large tech companies to tougher antitrust scrutiny now span the political spectrum, reflected in the enforcement policy of the Trump Administration, the endorsement by every Democratic candidate for President, and the growing debate over neo-Brandeisian/hipster antitrust. Antitrust scholars discussed emerging developments and offered their views about what the future may bring.

## Speakers

### Herbert Hovenkamp

James G. Dinan University Professor, University of Pennsylvania

### Thomas Fetzer

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

## Moderator

### Christopher S. Yoo

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

## Law and Technology Scholarship Workshop Series

Each year, CTIC invites scholars to the Law School to present new work in fields related to CTIC's research in law and technology. We were delighted to welcome an impressive group of scholars this year.

### Paul Gugliuzza

Visiting Professor of Law, Temple University  
Beasley School of Law  
*Law, Fact, and Patent Validity*

### Peter Menell

Koret Professor of Law, University of California, Berkeley  
*In Search of Copyright's Lost Ark: Interpreting the Right to Distribute in the Internet Age*

### Gideon Parchomovsky

Robert G. Fuller, Jr. Professor of Law, University of Pennsylvania  
Carey Law School  
*Two Conceptions of Fair Use*

### Jennifer Rothman

Professor of Law and the Joseph Scott Fellow, Loyola Law School, Los Angeles  
*The First Amendment and the Right(s) of Publicity*

### Tal Zarsky

Visiting Scholar, University of Pennsylvania Carey Law School;  
Professor of Law, University of Haifa Faculty of Law  
*Optimizing Breach Notification*



Top left: Paul Gugliuzza  
Top right: Peter Menell  
Middle left: Gideon Parchomovsky  
Middle right: Jennifer Rothman  
Bottom: Tal Zarsky



Center for Technology, Innovation and Competition



# Student-Oriented Programs

Detkin Intellectual Property and Technology Legal Clinic

*Journal of Law & Innovation*

Career Speaker Series

Cutting-Edge Degree Programs in Law and Engineering

CTIC Summer Public Interest Fellowships

CTIC and the Penn Intellectual Property Group

Partners of Entrepreneurial Engineering and Penn Law



Cynthia Dahl with Clinic Students

## Detkin Intellectual Property and Technology Legal Clinic

In 2019-2020, Penn Law's Detkin Intellectual Property and Technology Legal Clinic completed its seventh 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 and other creative work.

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. This year, representative client projects included a technology to replace animal testing in labs and an invention to more accurately disperse active ingredients in drug solutions.

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. Through simulations, shared classes, and even shared clients, the students learn from and among their professional peers.

"The 'learning by doing' model is incredibly valuable," says Sarah Marmon L'21. "One of the best experiences I had was writing a response to a refusal to register a trademark. My partner and I conducted the research, wrote and edited the arguments, and then led the call with the U.S. Patent and Trademark Office Examiner in charge of the file. I learned so much by getting to take on substantive legal work at such a high level of responsibility."

Besides PCI, students represent entrepreneurial ventures, inventors, nonprofits, and individual artists and creators in a broad-based transactional practice. Students work with clients seeking to commercialize cutting edge technologies and protect their innovation in a changing legal landscape. Increasingly, students have been called upon to grapple with issues surrounding privacy, protection and ownership of data, and authorship of product created through artificial intelligence. By facing these client counseling challenges even before they enter the profession, the Detkin Clinic is equipping Penn Law students with the skills and flexibility they need to practice as IP and technology lawyers.



## *Journal of Law & Innovation*

CTIC created a faculty-run *Journal of Law & Innovation* focused on law and technology. During the fall semester, students work with the faculty editors and read prominent legal scholarship on that year's *Journal* topic.

During the spring, students assist with the organization and execution of a major symposium on the topic (see Major Conferences), work with the symposium authors to substantively edit their pieces, and help to publish the *Journal* before the end of the academic year.

The topic of this year's symposium was "Rethinking Innovation Policy — The Role of the State." The event built on the success of past symposia, which focused on "Algorithms, Big Data, and Contracting — The Law of Agreements in a Digital Era" and "Revisiting the Kinship between Copyright and Patent Law."

"Being on the *Journal of Law & Innovation* and spending this past year as co-editor-in-chief contributed so much to my law school experience," says Saba Bajwa L'20. "It gave me not only a community of law and technology-interested students, and alumni who stayed involved, but also a space to work with people who sought an active and creative journal experience. The *Journal* seminar, where we analyzed and assessed legal scholarship with CTIC faculty, shaped my thinking in a way that informed how I approached all my other classes. I'm excited to see how the *Journal* grows, and to continue the *Journal* network beyond law school."

### 2019-2020 Editorial Board

#### Editors-in-Chief

Saba Bajwa L'20  
Michael Buchwald L'20

#### Board Members

Amanda Gould L'20  
Harrison Gunn L'20  
Thomas Kienzle L'20  
Louis Lesser L'20  
Sue Anna Yeh L'20  
Nadia Zivkov L'20  
Adam Zuckerman L'20



*Journal* members at the Franklin Institute



Top left: Srikala Atluri

Top right: David Goldman

Bottom left: Stuart Rosen

Bottom right: Jennifer Ying

## Career Speaker Series

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Each year, CTIC invites Penn Law alumni and other practicing attorneys to campus to share with students their professional experiences and insights and discuss their respective careers in law and technology. This year we were delighted to have the following distinguished practitioners speak:

**Srikala Atluri**

Director and Associate General Counsel, Patents, Hewlett Packard Enterprise

**David Goldman L'03**

Director of Satellite Policy, SpaceX

**Stuart Rosen L'84**

Senior Vice President and General Counsel, Broadcast Music, Inc.

**Jennifer Ying L'10**

Partner, Morris, Nichols, Arscht & Tunnell LLP

## 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.

In partnership with the School of Engineering and Applied Science (SEAS), Penn Law offers joint-degree programs in law and technology: the JD/Master of Computing and Information Technology (MCIT), which requires no 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.

“The modern practice of technology has become much more demanding,” said Christopher Yoo, John H. Chestnut Professor of Law, Communication, and Computer & Information Science. “Penn’s innovative joint degree programs are designed to create a new type of professional with advanced training in both law and engineering.” Students appreciate the opportunity afforded them in this accessible, flexible, and content-rich program.

In addition, Penn Law offers a Master in Law degree (ML) and a Certificate in Law for Penn students and professionals planning careers in technology and entrepreneurship, fields increasingly defined by regulation and innovation. Pairing the MCIT or the MSE with the ML degree results in a powerful combination offered in an accessible format, giving those planning careers as non-lawyers in the technology sector an opportunity to immerse themselves in the law intersecting this field while continuing to work or study in their primary pursuits outside of the law school.

“Since 2014 the ML program has educated SEAS students, entrepreneurs, and a diverse group of technologists in the law impacting and shaping this exciting and rapidly changing field, giving them a deeper and more nuanced understanding of their work and its potential, affording them tremendous advantage in the field while enabling them to create value and opportunity for themselves and the entities and stakeholders they serve,” said Catharine Restrepo L’93, Executive Director of the ML Program.

Graduates of the program develop key analytical and critical thinking skills as well as a knowledge base that will prepare them for technology-related careers as inventors, leaders of IT firms, startups and more. “Students appreciate the career preparation afforded them in focused, topically relevant and interesting course offerings,” said George Pandya, BS’20 SEAS/BS’20 Wharton, a recent graduate of Penn’s Jerome Fisher Program in Management and Technology, where he studied Mechanical Engineering and Operations, and a current candidate in the MSE ’21 in Nanotechnology and the ML ’21. “The ML foundational curriculum in Regulatory, Business, and US Law, combined with JD classes in Patents, Property, and Corporations, taught by preeminent legal scholars, have proven both fascinating and invaluable as I plan my career in technology entrepreneurship.”

In 2019, Penn Law pioneered a new program offering LLM students the opportunity to concentrate their studies in Intellectual Property and Technology Law. Eighteen students earned the honor in the program’s inaugural year.



Top: Christina Chen

Bottom: Delaney Butler



Left: Gerald Adams



Right: Joshua Burd

### **CTIC Awards 2020 Summer Public Interest Fellowships to Gerald Adams L'22 and Joshua Burd L'22**

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The CTIC Summer Public Interest Fellowship provides funding for students who secure internships with public interest or government organizations that are doing work relevant to technology policy, intellectual property, cyber law, privacy, and related fields. These fellowships are open to Penn Law 1Ls and 2Ls and offer students the opportunity to gain experience in technology law that might not otherwise be available to them.

This year, CTIC was proud to award summer public interest fellowships to Gerald Adams L'22, who worked for the Federal Communications Commission in the Office of Commissioner Geoffrey Starks, and to Joshua Burd L'22, who worked in the Smart Grid and Cyber-Physical Systems Office at the National Institute for Standards and Technology (NIST).

## CTIC and the Penn Intellectual Property Group

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

### 2019-2020 Leadership

#### Co-Presidents

Sofia Bonfiglio L'21

Harrison Gunn L'20

#### Officers

Milad Emamian L'21

Michael Hilyard L'21

Alicia Lai L'21

Louis Lesser L'20

Lillian Li L'21

Sarah Marmon L'21

Donald Marra L'20

Sara Zhou L'21

### U.S. Copyright Office Visits Penn Law

March 4, 2020

At an event co-hosted by CTIC and PIPG, representatives from the U.S. Copyright Office met with students and discussed the basics of copyright law, the duties of the Copyright Office, and some of the recent cases with which the Office has been involved.

U.S. Copyright Office Discussants

#### Kevin Amer

*Deputy General Counsel*

#### Terry Hart

*Assistant General Counsel*

#### Jalyce Magnum

*Attorney-Advisor for the Office of General Counsel*

The logo for the Penn Intellectual Property Group (PIPG) features the letters "PIPG" in a large, serif font. The "P" and "G" are dark blue, while the "I", "P", and "G" are red. Below the letters is a thin horizontal line.

EST. 2001

Penn Intellectual Property Group





Cynthia Dahl

## Partners of Entrepreneurial Engineering and Penn Law

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The Partnership for Entrepreneurial Engineering and Penn Law (PEEPL) is a student-run legal counseling simulation supervised by CTIC's 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 Science.

The teams choose a real-world technology to develop into a simulated business, which they 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 the technology.

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 and to teach the teams to consider legal advice within business realities.

Donald Marra L'20 and Milad Emamian L'21 were co-chairs of PEEPL in the 2019-2020 academic year. "Participating in PEEPL was an exciting opportunity to expand on what we have learned in the classroom," Marra and Emamian commented. "It was rewarding to work with creative engineering students to simulate advising clients. The mock startup companies benefited from exploring a variety of intellectual property protections including patents, copyrights, trademarks, and trade secrets. We especially appreciated counseling the engineering students and demonstrating how intellectual property issues intersect with their entrepreneurial ideas."





Center for Technology, Innovation and Competition



# Projects and News

Penn Algowatch Initiative

Comparative Study of Chinese, the E.U., and U.S. Competition Law

1 World Connected

New Initiative on the Economics of Digital Services

NSF Grant on Securing the Routing Infrastructure

CTIC Faculty and the American Law Institute (ALI)

Federal Communications Commission's Broadband Deployment Advisory Committee

UN Working Group on School Connectivity and GIGA

Administrative Conference of the U.S. Project on Protected Materials in Public Rulemaking Dockets

Special Master in NFL Concussion Settlement

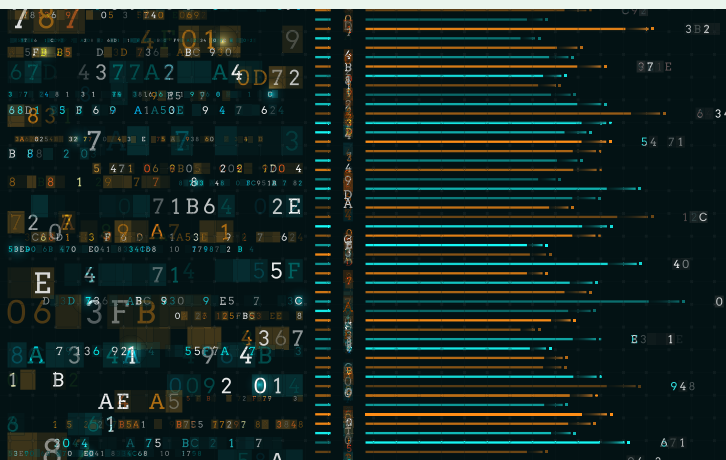
New Initiative in Public Interest Technology

Iron Tech Lawyer Invitational

Massive Open Online Courses (MOOC's) Intellectual Property Law Specialization

Clerkships in Patent Law

Faculty Notes



## Penn AlgoWatch Initiative

The Penn AlgoWatch Initiative provides intellectual and moral leadership on the challenges raised by the interactions between algorithms and society. An outgrowth of interdisciplinary dialogue across Penn's campus over the last several years, the project aspires to produce scientific, legal, and regulatory solutions to the issues raised by algorithmic bias, privacy violations, and related behaviors.

The project is headed by Michael Kearns of the School of Engineering and Applied Science, Ezekiel Dixon-Román of the School of Social Policy and Practice, and Christopher Yoo and is supported by machine learning expert Kristian Lum. Together, they hope to establish and encourage best practices, critique methods of design, and educate the public about the social issues surrounding our algorithmic era.

The centerpiece of the Initiative will be a public website featuring two broad categories of content and services: "auditing" of existing algorithms, services, and systems; and "tools" for best practices in algorithm and system design. The Initiative has the potential to significantly impact machine learning, mainly in the monitoring of large-scale services for algorithmic discrimination, privacy, transparency, and other concerns.



## Comparative Study of Chinese, the E.U., and U.S. Competition Law

One of the distinctive aspects of technology is its tendency to transcend national borders, both because of standardization and because of the ease with which information can flow around the world. The U.S. and Chinese cases against Qualcomm and the EU cases against Google underscore the need for businesses around the world to better understand how antitrust laws and competition policy are likely to be applied. To address this need, CTIC initiated a multi-year research project to compare how key antitrust issues are handled in China, the E.U., and the U.S. Phase one of the project focused on due process in antitrust enforcement. The team's research output has had a significant impact, having influenced the work of the U.S. Justice Department Antitrust Division's Multilateral Framework on Procedures, the International Competition Network's (ICN's) Framework for Competition Agency Procedures, and the Organization for Economic Cooperation and Development's (OECD's) Recommendation on Procedural Fairness.

Phase two examines the antitrust issues posed by big data. The research team initiated its efforts at a kickoff conference at the Penn Wharton China Center in Beijing.

"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."

Yoo is joined in the project by Wharton Professor Joseph Harrington. Chinese partners include Professor Yong Huang of the University of International Business and Economics Law School and Professor Guobin Cui of Tsinghua University. European expertise is provided by Professor Thomas Fetzer, Dean Emeritus and Professor of Law, School of Law and Economics, University of Mannheim. The project is supported by Penn Global's China Research Engagement Fund as well as corporate contributors.



Jiang Shan, Yong Huang, Thomas Fetzer

## 1 World Connected



Top: Müge Haseki in Eastern Province, Rwanda

Bottom: Sharada Srinivasan in Maewo Island, Vanuatu

CTIC has continued to lead 1 World Connected, its initiative to help more people around the world enjoy the benefits of Internet connectivity. As of now, roughly half to the world's citizens are not online, and global adoption rates are slowing. 1 World Connected conducts empirical research into innovative initiatives to bring more people online.

Since its inception in 2016, 1 World Connected's accomplishments have been impressive. The project team has created a unique database of more than 1,000 connectivity initiatives across the globe; conducted more than 100 case studies covering different technologies and interventions in domains such as agriculture, education, financial inclusion, and health; and is conducting major research projects in Nepal, Rwanda, and Vanuatu. The empirical data they have gathered provide key decisionmakers with a data-driven foundation for determining what really works. The project has also produced a remarkable series of research material, including publications, policy briefs, videos, and podcasts.

1 World Connected collaborates with numerous international organizations to promote Internet adoption. These include:

- UN Internet Governance Forum's Dynamic Coalition on Innovative Approaches to Connecting the Unconnected
- UN Secretary General High-Level Panel on Digital Cooperation's Global Connectivity Working Group
- Research Coalition of EQUALS: Global Partnership to Bridge the Digital Gender Divide
- Education for the Most Marginalised post-COVID 19 (EMMpost-Covid-19) Working Group (2020–present)
- Inter-American Development Bank

Postdoctoral fellow Müge Haseki highlighted the importance of 1 World Connected's involvement in these fora, saying, "Development goals cannot be achieved without strong public-private partnerships and coalitions as it requires different expertise, knowledge and resources to identify innovative solutions. 1 World Connected brings a unique perspective that is data-driven."

The project is continuing to expand. GSMA has awarded 1 World Connected a major grant to study the impact of mobile Internet connectivity on women's socioeconomic well-being in Bangladesh and Ghana.

## New Initiative on the Economics of Digital Services

CTIC has secured a \$350,000 grant from the John S. and James L. Knight Foundation for its initiative to provide a basis for evidence-based decision-making regarding the economics of digital services. The goal is to provide a better understanding of technology companies whose business models are predicated on access to user data. The resulting research should provide a stronger foundation for the proper scope antitrust enforcement and regulatory intervention.

The grant was made as part of Knight Foundation's \$50 million initiative to support scholarly inquiry and novel approaches that will strengthen our democracy as the digital age progresses.

"Attitudes towards digital services have changed dramatically over the past few years," noted Christopher Yoo. "The project's goal is to develop a better understanding of the market dynamics for online services and the business strategies that digital platforms are pursuing. We are grateful for the Knight Foundation's support to help make this happen."

The project will be led by Yoo and Rakesh Vohra, George A. Weiss and Lydia Bravo Weiss Professor of Economics and Engineering and Co-director of the Warren Center for Network & Data Sciences.

It will explore two key areas. The first is digital platforms' greater reliance on algorithms and data. The second examines the economic implications of vertical integration and other emerging business models employed by tech companies.

To explore these issues, Yoo and Vohra will implement an interdisciplinary effort, leveraging Penn's Law, Engineering, Wharton, and Annenberg Schools and its Department of Economics. Grant funding will be provided to scholars both inside and outside of Penn in order to conduct theoretical and empirical studies on the issues raised by digital platforms. Research results will be shared through training and policy outreach programs as well as conferences, especially those geared toward government officials interested in learning more about the technical and economic underpinnings of modern digital services.

"We hope our efforts will help support an analytically sound assessment of how to regulate digital services," said Yoo.



Top: Christopher Yoo

Bottom: Rakesh Vohra



David Wishnick gives Lightning Talk at North American Network Operators' Group Conference

## NSF Grant on Securing the Routing Infrastructure

Christopher Yoo and David Wishnick collaborated on a National Science Foundation-funded project to identify legal obstacles to the adoption of Internet routing security technologies and to propose strategies to overcome those obstacles. The project focused on the deployment of a promising framework for securing Internet routing known as the Resource Public Key Infrastructure (RPKI) in North America. Their work provided insights into the role that law plays in the development and diffusion of innovative technology.

To deliver on these goals, Yoo and Wishnick canvassed the field of network engineering to identify all potentially significant legal barriers to the adoption of the RPKI framework. The team interviewed practicing engineers and academics alike, learning that the set of perceived barriers to RPKI was broader than had originally been identified in public dialogue. This led the team to conduct an independent analysis of the legal problems at issue.

The team's analysis provided network engineers with a new perspective on the problem of RPKI non-adoption. It helped identify which barriers were salient across the entire community, and it revealed that some of the perceived legal barriers to RPKI adoption were based on misunderstandings. Most significantly, the team developed a set of actionable recommendations for the American Registry of Internet Numbers (ARIN), which operates the RPKI repository for North America, and for the larger networking community. These recommendations have become central to the ongoing dialogue between ARIN and its members regarding reform of the RPKI legal framework. ARIN has adopted two of the recommendations, and its community members continue to debate others.

In addition to practical impact, the project has yielded useful results at the level of academic theory. The research conducted under this grant shed light on the dynamics of technology adoption in the Internet setting. The challenge in these situations is to encourage disparate actors to move towards the valuable state of widespread adoption.

This project revealed that nonprofits like ARIN and the North American Network Operators Group (NANOG) and early adopters each have important roles to play in promoting the deployment of new technologies. The fewer legal barriers there are, the easier this process will be. CTIC's work has played a key role in shifting the adoption curve for RPKI by encouraging groups like ARIN and NANOG to address the legal issues head on.



## CTIC Faculty and the American Law Institute (ALI)

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. Shyamkrishna Balganesh serves as an Adviser for the Project on Restatement of the Law, Copyright. 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 that of a typical Restatement.

Anita Allen and Christopher Yoo both served as Advisers for the Project on Principles of the Law, Data Privacy. The ALI membership approved the final draft in May 2019.

Yoo also serves on the Board of Advisers for the Project on Principles for a Data Economy, that the ALI is conducting jointly with the European Law Institute (ELI). The ALI Council has approved the first three parts of this project and is preparing to submit them to the Membership for approval. The remaining three parts have been drafted and await further consideration.

David Hoffman has been an elected ALI member since 2011. Tom Baker was elected to the ALI membership in 2000 and served as one of the Reporters for the Project on Restatement of the Law, Liability Insurance, which was completed in 2019.

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, David  
Hoffman





## Federal Communications Commission's Broadband Deployment Advisory Committee

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In March 2019, Christopher Yoo completed his two-year term as a member of the Federal Communications Commission (FCC)'s Broadband Deployment Advisory Committee (BDAC). Yoo was subsequently reappointed to a second two-year term from 2019 to 2021 by FCC Chairman Ajit Pai.

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 served on the working group charged with drafting a model state code and the Ad Hoc Committee on Rates and Fees. He also led the BDAC's efforts to assess current deployment practices empirically. Yoo is currently serving on the working group studying how to increase broadband deployment and adoption in low-income communities. The working group is paying particular attention to insights drawn from responses to the COVID-19 pandemic.

"High-speed Internet access creates undeniable 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 expanded Internet access to citizens across the country."

## UN Working Group on School Connectivity and GIGA

Christopher Yoo has been named an External Expert and Advisor for the UN Working Group on School Connectivity. The Group will also serve as an advisory group for GIGA, a UNICEF and ITU-backed project centered on global school connectivity that aims to connect every school to the internet by 2030.

“The COVID-19 pandemic has made school connectivity more important than ever,” Yoo said. “1 World Connected’s case studies have provided real-world insights into the best ways to bring students online.”

Building on the research and scholarship of its members, the Group focuses on connecting schools around the world and providing key advice and advocacy efforts with the goal of “ensuring that every young person has access to information, opportunity, and choice.”

According to UNICEF Director Henrietta Fore, over 360 million young people around the world lack access to the digital age because of poverty, geography, or other circumstances. Moreover, a 2019 Broadband Commission report supports the finding that a 10 percent increase in mobile broadband deployment caused a 0.8 percent increase in the GDP.

The Working Group also provides guidance on the financing and development of the e-schools initiative as well as focuses on issues of technologies, business models, the link between quality teaching and inclusive learning, and improving the employability of students.

The Group is comprised of key players in various disciplines, including academia, the Information and Communications Technology industry, intergovernmental organizations, and governmental policy and regulation.



Christopher Yoo



### **Administrative Conference of the U.S. Project on Protected Materials in Public Rulemaking Dockets**

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The Administrative Conference of the U.S. (ACUS) has invited Christopher Yoo to serve as a consultant for its project recommending administrative procedures for handling protected materials in public rulemaking dockets.

The emergence of the Internet has vastly increased the public's ability to participate in governmental processes. At the same time, it has heightened the risks of online disclosure of personally and commercially sensitive information. This means that agencies must strike a balance between the need to promote governmental transparency and the obligation to protect individual privacy.

This project is designed to provide insights into the best administrative practices for reconciling the tension between these two considerations. The primary analysis is embodied in a report authored by Yoo with the support of Kellen McCoy L'21. ACUS's Committee on Rulemaking has drafted a recommendation based on this analysis that will be considered at the ACUS Plenary Session scheduled for December 2020.

## Special Master in National Football League Concussion Settlement

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On March 5, 2020, the U.S. District Court for the Eastern District of Pennsylvania appointed David Hoffman to serve as a Special Master to help to oversee the agreement settling the litigation between the National Football League (NFL) and some of its retired players over concussion injuries.

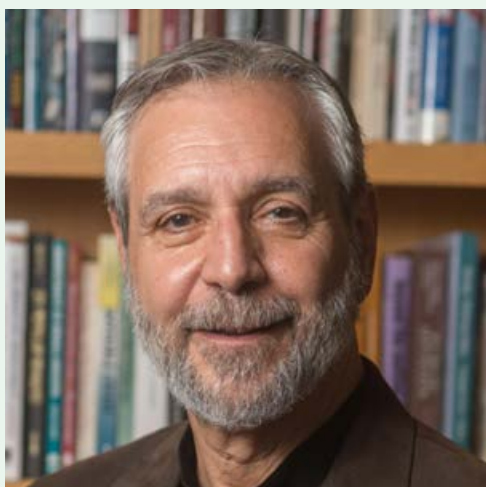
The litigation centers on the retired players' claims that repetitive traumatic head injuries from their football careers have caused, or will likely cause, long-term neurological issues. The lawsuit contends that the NFL exhibited negligence in failing to warn players of these risks.

Hoffman's duties as a special master include oversight of determinations whether individuals are properly members of the settlement class, monetary and derivative claimant awards, compensation and expenses for litigation-related administrators, benefit levels, and adjudication of motions related to settlement implementation.

Hoffman's appointment is in addition to the prior appointments of Penn Provost Wendell Pritchett and Penn Law Vice-Dean Jo-Ann Verrier.



David Hoffman



Top: Michael Delli Carpini



Bottom: Christopher Yoo

## New Initiative in Public Interest Technology

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This year, the University of Pennsylvania joined the Public Interest Technology University Network (PIT-UN), a group of 36 college and university members committed to building the nascent field of public interest technology and growing a new generation of civic-minded technologists. Founded in 2019, PIT-UN focuses on five major goals, including support for interdisciplinary curricula; development of experiential learning opportunities; career support for jobs in public interest technology; infrastructure, support, and resources for faculty; and sharing of institutional data to assess efforts.

In partnership with the Provost's Office, this endeavor is being led by Christopher Yoo and Michael Delli Carpini, the Inaugural Faculty Director of the Stavros Niarchos Foundation Paideia Program and the Oscar H. Dandy Professor of Communication & Democracy, Annenberg School for Communication.



## Iron Tech Lawyer Invitational

On April 17, student representatives from Penn Law and the School of Engineering and Applied Science (SEAS) competed in Georgetown Law's Iron Tech Lawyer Invitational. The Iron Tech Lawyer Invitational is an international competition designed to help students showcase legal technologies and data analysis tools to help improve access to justice. This year was Penn's first year at the competition.

Cynthia Dahl of Penn Law's Detkin Intellectual Property and Technology Legal Clinic supervised two separate interdisciplinary teams. One team worked with Community Legal Services (CLS) to create PhilaForm, a "guided interview" to help users qualify for and apply to state tax reduction programs. The team designed a web-based application to empower low-income Philadelphia residents to apply to existing but underutilized city and state real estate tax abatement programs to lower their tax liability and avoid accruing interest, fees and foreclosure in a rapidly gentrifying city. The students involved in PhilaForm included Zachary Furcolo L'21, Yinran Pan L'21, Maria Tartakovsky L'21, Vince Gubitosi SEAS '20, Natalie Wiegand SEAS '20, and Kevin Yin SEAS '20.

A second team worked for Broad Street Ministry to create a "digital lockbox" to safeguard the important identification and health records of people facing housing insecurity.

The CLS team was selected to present PhilaForm at the conference and will continue to work with CLS in fall 2020 to further develop and test the tool. The digital lockbox team plans to launch as a company in the near future.

"We really enjoyed the cross-disciplinary nature of the project," said the law students in a collective statement. "Working closely with Community Legal Services we were able to customize the application so that it met real needs in the legal community. Additionally, most of us have technical backgrounds ourselves, and this was a unique opportunity to be able to combine those with our legal education."



Participants in the virtual Iron Tech Invitational



### Massive Open Online Courses: Intellectual Property Law Specialization

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Penn Law offers eight massive open online courses (MOOCs) on the Coursera platform that bring legal education to learners far beyond the traditional pool of JD, LLM, and ML candidates. Working alongside the Legal Education Programs team, Professors Michael Knoll and Polk Wagner recruited many of Penn Law's top standing, clinical, and adjunct faculty to produce innovative courses that afford non-attorneys the opportunity to obtain a practical legal education. These courses focus on intellectual property law and regulatory compliance, responding to a steep increase in demand for legal knowledge from professionals across industries.

Four of the eight classes are part of the Intellectual Property Law Specialization. Through these courses, students learn the differences among the various forms of intellectual property rights, including patents, copyrights, and trademarks, and their various applications to human innovations. Drawing from that knowledge, students work to develop a trademark strategy for a company, analyze a patent document, and address a copyright cease-and-desist request, for example. These hands-on projects give students the necessary framework to craft integrated intellectual property strategies tailored to an organization's core business goals.

The courses in the Intellectual Property Law Specialization include Patent Law and Introduction to Intellectual Property both taught by Professor Wagner, Copyright Law taught by Professor Shyamkrishna Balganesh, and Trademark Law taught by Professor Cynthia Dahl.

## Clerkships in Patent Law

CTIC is proud of the Penn Law students and graduates who recently completed clerkships, are currently clerking, or are due to clerk for distinguished patent law judges:

### **Pratik Agarwal L'18**

The Honorable Jon P. McCalla, U.S. District Court for the Western District of Tennessee, 2020-21 Term

### **Judah Bellin L'18**

The Honorable Leonard P. Stark, U.S. District Court for the District of Delaware, 2019-20 Term

### **Lavi Ben Dor L'20**

The Honorable Kent A. Jordan, U.S. Court of Appeals for the Third Circuit, 2021-22 Term

### **Greg Bischooping L'18**

The Honorable Kent A. Jordan, U.S. Court of Appeals for the Third Circuit, 2020-21 Term

### **Josh Bloom L'13**

The Honorable Kent A. Jordan, U.S. Court of Appeals for the Third Circuit, 2019-20 Term

### **Michelle Bone L'19**

The Honorable Raymond C. Clevenger III, U.S. Court of Appeals for the Federal Circuit, 2019-20 Term; The Honorable James Donato, U.S. District Court of the Northern District of California, 2020-21 Term

### **Matt De Stasio L'18**

The Honorable Laura T. Swain, U.S. District Court for the Southern District of New York, 2019-20 and 2020-21 Terms

### **Maura Douglas L'18**

The Honorable William F. Kuntz, U.S. District Court for the Eastern District of New York, 2019-20 Term

### **Robert Hampton L'18**

The Honorable Jimmie V. Reyna, U.S. Court of Appeals for the Federal Circuit, 2021-22 Term

### **Kayla Katz L'20**

The Honorable Stanley R. Chesler, U.S. District Judge for the District of New Jersey, 2020-21 Term

### **Rhochelle Krawetz L'21**

The Honorable Timothy B. Dyk, U.S. Court of Appeals for the Federal Circuit, 2022-23 Term

### **Alicia Lai L'21**

The Honorable Kathleen M. O'Malley, U.S. Court of Appeals for the Federal Circuit, 2021-22 Term

### **Leo Park L'17**

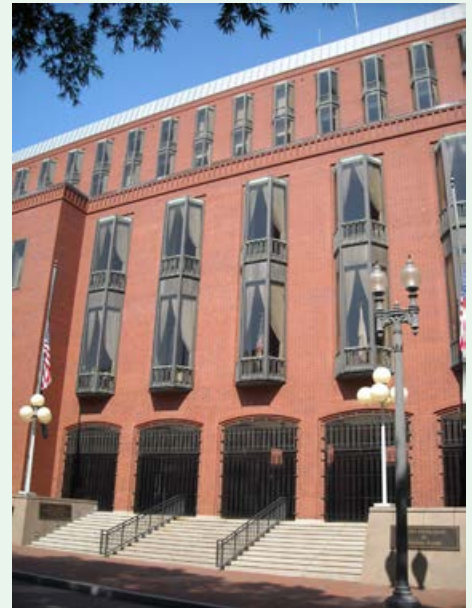
The Honorable Barbara M.G. Lynn, U.S. District Court for the Northern District, 2019-20 Term

### **Elana Stern L'18**

The Honorable P. Kevin Castel, U.S. District Court for the Southern District of New York, 2019-20 Term

### **Thomas Vaseliou L'19**

The Honorable Richard G. Taranto, U.S. Court of Appeals for the Federal Circuit, 2020-21 Term



U.S. Court of Appeals for the Federal Circuit

## Faculty Notes

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CTIC is proud of its faculty members' accomplishments in the last year.

- David Abrams developed a tool for tracking crime during the COVID-19 pandemic, which was featured in an article in *The Economist*
- Shyamkrishna Balganesh filed amicus briefs in the landmark copyright cases *Google v. Oracle* and *Georgia v. Public Resource.Org*
- Allison Hoffman had opinion pieces published in *The Hill* and *The Philadelphia Inquirer*
- Allison Hoffman moderated a fireside chat, *Health Policy and Politics in Turbulent Times*, with former Florida Governor Jeb Bush
- Allison Hoffman provided insight into the patient's perspective when choosing health care plans in *Salon*
- Allison Hoffman & Tom Baker were awarded a Robert Wood Johnson Foundation grant in support of their work to organize the 2020 Health Insurance Exchange Conference, "Ten Years After the ACA: Imagining Health Insurance Futures"
- David Hoffman and Tess-Wilkinson-Ryan created a podcast series, *Promises, Promises*, to discuss influential contract cases
- David Hoffman provided insight on contract law in an article on leases during the pandemic in the *Philadelphia Inquirer*
- Herbert Hovenkamp received the Jerry S. Cohen Award for Antitrust Scholarship
- Aviv Nevo and Christopher Yoo were invited to speak at the U.S. Department of Justice Antitrust Division and the Federal Trade Commission's Public Workshop on their Draft Vertical Merger Guidelines.
- Polk Wagner testified before the Senate Judiciary Committee's Subcommittee on Intellectual Property on "Promoting the Useful Arts: How can Congress Prevent the Issuance of Poor Quality Patents"
- Tess Wilkinson-Ryan's article *Our Minds Aren't Equipped for This Kind of Reopening* was published in *The Atlantic*
- Christopher Yoo's work was cited in Justice Clarence Thomas's dissent in *Selia Law v. CFPB*.
- Christopher Yoo was named to the Board of Directors of TPRC.
- Christopher Yoo co-organized the Third Annual Junior Faculty Forum on Law and STEM (with Mark Lemley of Stanford Law School and David Schwartz of the Northwestern University Pritzker School of Law).
- Christopher Yoo delivered a keynote address at the Australian Competition and Consumer Commission's 17th Annual Competition Law and Economics Workshop.







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

[www.law.upenn.edu/institutes/ctic/](http://www.law.upenn.edu/institutes/ctic/)



3501 Sansom Street  
Philadelphia, PA 19104-6204

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