Law, Technology and Competition at Penn 2021–2022











## Law, Technology and Competition at Penn

2021-2022





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

For more information about CTIC, visit www.pennCTIC.org. Follow us onTwitter @pennlawctic.

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Christopher Yoo

### Message from the Director

Dear Friends of CTIC,

This annual report commemorates the 15th year of the Center for Technology, Innovation & Competition (CTIC) at Penn Carey Law.

In this report, we took a different approach to telling the year's story by grouping events, projects, and publications in line with the Center's core areas: Competition & Technology, Intellectual Property, Internet & Privacy Law, Emerging Technologies, and Health Care & Life Sciences. CTIC's newest core area, Entertainment & Media Law, will be launched in academic year 2022-2023 by Jennifer Rothman who recently joined Penn Carey Law as the Nicholas F. Gallicchio Profesessor of Law. We are thrilled that Prof. Rothman, a nationally recognized intellectual property scholar and the leading expert on the right of publicity, now serves on the CTIC faculty and will help propel the Center's work in these dynamic and increasingly significant areas.

Social impact was a recurring theme in CTIC's events and research this past year. Symposia examined the racial dimensions of various aspects of health law, African Americans' vulnerability to bias and discrimination online, and the impact of technological advancements on the criminal justice system. CTIC's 1 World Connected project, launched to help close the global digital divide, completed two studies this year—one on the effect of mobile Internet on the well-being of individuals and how it differs by gender, and another on how community networks, a promising way to bring more people online, can be sustainable.

CTIC's faculty and staff grew this year. Four Penn professors joined CTIC's affiliated faculty with expertise in economics, marketing, and medical ethics and health policy. CTIC brought aboard three new fellows and welcomed two visiting scholars, an economist from the Weizenbaum Institute for the Networked Society and a law professor from Humboldt University of Berlin.

As always, CTIC is profoundly grateful to its Penn colleagues, global collaborators and participants, donors, and friends for their extraordinary contributions to the Center's work and success during the 2021-2022 academic year. Their loyal support allows CTIC to maintain its status as one of the world's leading academic centers on law and technology.

#### **Christopher Yoo**

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

## About CTIC

CTIC's mission is to forge a collaborative community of innovative researchers and students committed to learning and advancing the discipline of law and technology. CTIC focuses its work in five areas: Competition & Technology, Intellectual Property, Internet & Privacy Law, Emerging Technologies, and Health Care & Life Sciences. The Center accomplishes its mission in three ways.

CTIC conducts cutting-edge research and initiates pathbreaking projects, publications, and events that explore the full range of scholarly perspectives.

CTIC helps students and the next generation of scholars, policymakers, and practitioners better position themselves to contribute to and enrich our technologically dynamic world through innovative law and technology curricula, joint degree programs, fellowships and internships, and engagement with technology-focused student groups at the law school and elsewhere in the Penn community.

CTIC educates policymakers and the public on critical issues where law and technology converge. We invite agency officials and their staff, international academics, and interested individuals to attend CTIC symposia and other events, and post and promote research findings, commentary, and other publications.

CTIC draws upon the expertise of Penn Carey Law's nationally and internationally recognized law and technology experts as well as the University of Pennsylvania's School of Engineering and Applied Science (SEAS), Warren Center for Network & Data Sciences, Wharton School, Penn Medical Ethics & Health Policy, and other renowned Penn schools and centers. CTIC also collaborates with other law schools and their technology centers on events covering developments in law and STEM, intellectual property, and other areas.



# **CTIC Faculty**



#### **DAVID ABRAMS**

"Crime significantly dropped when the COVID pandemic hit, but there are still deeper takeaways from the pandemic's effect on crime that merit further exploration. The combination of the recent spike in homicides and shootings, the effect of the social justice protests of 2021, and other aspects of crime like police stops makes it apparent that there are still serious questions that need answers. So I continue my research on the factors that impact crime."

#### **David Abrams**

#### Professor of Law, Business Economics, and Public Policy

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

#### **Expertise**

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

#### **Secondary Appointments**

Business Economics and Public Policy, 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

#### **Representative Publications**

*The Patent Troll: Benign Middleman or Stick-Up Artist?* (Univ. of Chicago Becker Friedman Inst. for Econ. Working Paper No. 2019-51 2019) (with Ufuk Akcigit, Gorhan Oz & Jeremy Pearce).

Patent Value and Citations: Creative Destruction or Strategic Disruption? (U. of Pa. L. & Econ. Rsch. Paper Series No. 13-23, 2013) (with Ufuk Akcigit & Jillian Popadak).

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).

#### **Recent Publications**

*Do Cops Know Who to Stop? Assessing Optimizing Models of Police Behavior with a Natural Experiment* (Faculty Scholarship at Penn Carey Law 2816, Mar. 4, 2022) (with Hanming Fang & Priyanka Goonetilleke).

*COVID and Crime: An Early Empirical Look*, 194 JOURNAL OF PUBLIC ECON. 104344 (2021).

When in Rome... On Local Norms and Sentencing Decisions, 19 J. EUR. ECON. Ass'N 700 (2021) (with Roberto Galbiati, Emeric Henry & Arnaud Philippe).



#### **CYNTHIA DAHL**

"I love intellectual property practice for its potential to protect and even incentivize positive change through creation. As our society faces challenges to our health, our economic livelihoods, and even our cultural fabric, we are supporting clients making a difference."

#### **Cynthia Dahl**

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

As Director of the Detkin Intellectual Property and Technology Legal Clinic, Cynthia Dahl specializes in counseling clients on creating economic value through protecting intellectual property and technological innovation. Before joining Penn Carey 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 and 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 nonlegal professionals. She is also interested in university technology transfer and 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
- Penn Entrepreneurial Engineers and Penn Carey Law (PEEPL)
- Advanced Intellectual Property Clinic
- Externship, Penn Office of Audit, Compliance and Privacy
- Independent Study, Keiretsu Forum

#### **Representative Publications**

Reviewing Inter Partes Review Five Years In: The View from the University Technology Transfer Offices, in Research Handbook on Intellectual Property and Technology Transfer 339 (Edward Elgar 2020).

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

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 Pa. 2019).

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).

#### **Recent Publications**

*Did the America Invents Act Change University Technology Transfer?*, 19 Tex. INTELL. PROP. L.J. 1 (2021).



#### **ALLISON HOFFMAN**

"Health care continues to pose challenging and interesting questions at the forefront of critical areas of law, policy, and regulation, including public health care financing, antitrust law and policy, administrative law, and public health regulation."

#### **Allison Hoffman**

#### Professor of Law

Allison Hoffman is an expert in health care law and policy. Her work examines some of the most important legal and social issues of our time, including the Affordable Care Act, Medicare and retiree health care expenses, and long-term care. In summer 2020, Hoffman cotaught a class on COVID-19 and the law. In 2018, she received the Robert A. Gorman Award for Excellence in Teaching.

Hoffman has extensive experience working as a lawyer and business consultant in the health care industry. She practiced law at Ropes & Gray LLP, where she counseled clients on health care regulatory matters. She has also provided strategic business advice to health care companies as a consultant at the Boston Consulting Group and the Bridgespan Group. From 2010 to 2017, Hoffman was a member of the UCLA School of Law faculty and before that, 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).

Long-Term Care Policy after Covid-19 – Solving the Nursing Home Crisis, 383 New Eng. J. Med. 903 (2020) (with Rachel Werner & Norma Coe).

Health Care's Market Bureaucracy, 66 UCLA L. REV. 1926 (2019).

*Reimagining the Risk of Long-Term Care*, 16 Yale J. Health Pol'Y L. & Ethics 239 (2016).

*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 POLITICS OF MEDICARE (Routledge, 3d ed. forthcoming) (with Theodore Marmor).

How a Pandemic Plus Recession Foretell the Post-Job-Based Horizon of Health Insurance, 71 DEPAUL L. REV. 1201 (2022).

A Public Option for Employer Health Plans, 22 Yale J. Health Pol'Y L. & Ethics 299 (2021) (with Howell Jackson & Amy Monahan).



#### **DAVID HOFFMAN**

"Eviction is at the center of a set of social ills that are often difficult to understand and disentangle. Our goal is to offer a previously unidentified but plausible cause of evictions: commuting time to court. When the court system requires defendants to show up by a particular time—in this case, 8:45 a.m.—or default their rights with near certainty, our research shows that longer transit times to court result in significantly higher likelihoods of being evicted."

#### **David Hoffman**

#### William A. Schnader Professor of Law; Deputy Dean

David Hoffman's scholarship uses observational and experimental data to explore individuals' behavior relating to legal rules and practices. In contract law, he has recently worked to build and analyze a novel dataset of several hundred thousand Philadelphia residential leases, which has identified the growing use of standardized leases that often contain illegal terms and how geography and race affect the kinds of lease terms tenants face. A new draft paper will focus on the determinants of default evictions in Philadelphia.

Hoffman's previous scholarship has examined digitized contracting over blockchain networks as well as the contractual documents governing initial coin offerings, the role of nonparties in contract adjudication, and how firms use form contracts as brands to better engage users with digital platforms. 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. He 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**

*Transactional Scripts in Contract Stacks*, 105 MINN. L. Rev. 319 (2020) (with Shaanan Cohney).

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

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).

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**

CONTRACT AND RELATED OBLIGATION: THEORY, DOCTRINE, AND PRACTICE (American Casebook Series, 8th ed. 2022) (with Robert Summers & Robert Hillman).

*Nonparty Interests in Contract Law*, 170 U. PA. L. Rev. (forthcoming 2022) (with Cathy Hwang & Omri Ben-Shahar).

*Leases as Forms,* 19 J. Empirical Legal Stud. 90 (2022) (with Anton Strezhnev).

The Social Cost of Contract, 121 COLUM. L. REV. 979 (2021) (with Cathy Hwang).



#### **HERBERT HOVENKAMP**

"Promoting competitive consumer and labor markets in a time of great change and uncertainty"

#### 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 was named a Penn Integrates Knowledge professor in 2017, part of a university-wide initiative to integrate research across different educational disciplines. He holds appointments in the University of Pennsylvania Carey Law School and in the departments of Legal Studies and Business Ethics at the Wharton School. Before joining the University of Pennsylvania, Hovenkamp was a law professor 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. He has been a Rockefeller Foundation Fellow and Fellow of the American Council of Learned Societies at Harvard Law School, a Faculty Scholar and Presidential Lecturer at the University of Iowa, and a recipient of the John Sherman Award from the U.S. Department of Justice. He was awarded a Penn Carey 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, 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 (Kluwer/Aspen, 4th & 5th eds. 1978-2022) (with Phillip Areeda et al.).

Federal Antitrust Policy: The Law of Competition and Its Practice (West Academic Hornbook Series, 6th ed. 2020).

The Opening of American Law: Neoclassical Legal Thought, 1870-1970 (Oxford 2015).

*Framing the Chicago School of Antitrust Analysis*, 168 U. PA. L. REV. 1843 (2020) (with Fiona Scott Morton).

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

#### **Recent Publications**

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

Antitrust Interoperability Remedies, 122 COLUM. L. REV. FORUM (forthcoming 2022).

*Monopolizing and the Sherman Act,* 64 Wm. & Mary L. Rev. (forthcoming 2022).

The Invention of Antitrust, 95 S. CAL. L. REV. (forthcoming 2022).

Worker Welfare and Antitrust, 89 U. CHI. L. REV. (forthcoming 2022).

A Miser's Rule of Reason: The Supreme Court and Antitrust Limits on Student Athlete Compensation, 78 N.Y.U. ANN. SURV. AM. L. 1 (2022).

Antitrust Error Costs, 24 U. PA. J. Bus. L. 293 (2022).

Antitrust Liability for False Advertising: A Response to Carrier & Tushnet, 107 Iowa L. Rev. ONLINE 82 (2022) (with Susannah Gagnon).

Digital Cluster Markets, 2022 COLUM. BUS. L. REV. 246.

President Biden's Executive Order on Promoting Competition: An Antitrust Analysis, 64 Ariz. L. Rev. 383 (2022).

Selling Antitrust, 73 HASTINGS L.J. 1621 (2022).

Addressing the Divisions in Antitrust Policy, Concurrences Rev. (Nov. 15, 2021).

Antitrust and Platform Monopoly, 130 Yale L.J. 1952 (2021).

Antitrust Harm and Causation, 99 WASH. U. L. REV. 787 (2021).

Competitive Harm from Vertical Mergers, 59 Rev. Indus. Org. 139 (2021).

The Looming Crisis in Antitrust Economics, 101 B.U. L. REV. 489 (2021).

Vertical Control, 96 N.Y.U. L. Rev. ONLINE 215 (2021).



#### **GIDEON PARCHOMOVSKY**

"I advocate a reconceptualization of patent law: do away with the USPTO's sole criterion—whether an invention is patentable—and instead implement a mechanism of "patent scores." After the USPTO decides that an invention is patentable, it should then apply a 1-5 qualitative scale to the invention, which would determine, among other things, its protection term. This novel design for the patent system would significantly improve its functioning."

#### **Gideon Parchomovsky**

Robert G. Fuller, Jr. Professor of Law

Gideon Parchomovsky specializes in intellectual property, property law, and cyber law. Parchomovsky has 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 for Excellence in an Introductory 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**

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

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

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).

#### **Recent Publications**

Are All Risks Created Equal? Rethinking the Distinction Between Legal and Business Risk in Corporate Law, 102 B.U. L. REV. (forthcoming 2022) (with Adi Libson).

SPACtivism, 100 WASH. U. L. REV. (forthcoming 2022) (with Sharon Hannes & Adi Libson).

Sentencing Co-Offenders, 99 WASH. U. L. REV. 1425 (2022) (with Ehud Guttel & Ittai Paldor).

*Third Party Moral Hazard and the Problem of Insurance Externalities,* 51 J. LEGAL STUD. 93 (2022) (with Peter Siegelman).

Preliminary Damages, 75 VAND. L. REV. 239 (2022) (with Alex Stein).

Autonomy, 71 U. TORONTO L.J. 61 (2021) (with Alex Stein).

*Corporate Law for Good People*, 115 Nw. U. L. Rev. 1125 (2021) (with Adi Libson).

Propertizing Fair Use, 71 VA. L. REV. 1255 (2021) (with Abraham Bell).

*Reversing the Fortunes of Active Funds*, 99 Tex. L. Rev. 581 (2021) (with Adi Libson).

The Agent's Problem, 70 DUKE L.J. 1509 (2021) (with Asaf Eckstein).



#### **JENNIFER ROTHMAN**

"The right of publicity has long been directed at protecting both the economic and the noneconomic interests of identity-holders. Through my work, I demonstrate that the same is true for trademark and unfair competition laws, which have long protected a person's autonomy and dignity interests as well as their market-based ones."

#### Jennifer Rothman

Nicholas F. Gallicchio Professor of Law

Jennifer Rothman is nationally recognized for her scholarship in the field of intellectual property law. She is the leading expert on the right of publicity and is frequently sought after to consult on legislation, high-profile litigation, and the development of creative projects. Rothman holds a secondary appointment at the Annenberg School for Communication. In addition to focusing on conflicts between intellectual property rights and other constitutionally protected rights such as the freedom of speech, her scholarship explores the intersections of tort and property law, particularly in the context of the right of publicity, copyright, trademark, and unfair competition law. Her current research focuses on the ways intellectual property law is employed to turn people into a form of property and how it regulates the production and content of expression. Rothman's most recent article appears in the Harvard Law Review and addresses what she calls an "identity thicket" of overlapping and conflicting rights over a person's identity. Her recent book, The Right of Publicity: Privacy Reimagined for a Public World, published by Harvard University Press, has been described as the "definitive biography of the right of publicity." She is the author of Rothman's Roadmap to the Right of Publicity, the preeminent website for all things right of publicity related (www.rightofpublicityroadmap.com).

Before joining the Penn Carey Law faculty in the summer of 2021, Rothman held the William G. Coskran Chair at LMU Loyola Law School in Los Angeles, where she received the 2019-2020 David P. Leonard Faculty Service Award for outstanding teaching and service. From 2005 to 2007, she was an associate professor at Washington University School of Law in St. Louis. Rothman is an elected member of the American Law Institute and an adviser on the *Restatement of the Law (Third) of Torts: Defamation and Privacy*, and an affiliated fellow at the Yale Information Society Project at Yale Law School.

#### **Expertise**

Trademarks & Unfair Competition, Right of Publicity, Copyright, Torts, First Amendment, Intellectual Property Theory, Enter-tainment & Media Law, Privacy Law

#### **Secondary Appointments**

Annenberg School for Communication

#### Education

JD University of California, Los Angeles School of Law MFA University of Southern California, School of Cinematic Arts AB Princeton University

#### **Courses Taught**

- Introduction to Intellectual Property Law and Policy
- Trademarks and Unfair Competition
- Right of Publicity
- Torts
- First Amendment

#### **Representative Publications**

The Right of Publicity: Privacy Reimagined for a Public World (Harvard 2018).

*The First Amendment and the Right(s) of Publicity*, 130 YALE L.J. 86 (2020) (with Robert Post).

*Commercial Speech, Commercial Use and the Intellectual Property Quagmire,* 101 VA. L. REV. 1929 (2015).

The Inalienable Right of Publicity, 100 GEO. L.J. 185 (2012).

*Liberating Copyright: Thinking Beyond Free Speech*, 95 CORNELL L. Rev. 463 (2010).

#### **Recent Publications**

*Navigating the Identity Thicket: Trademark's Lost Theory of Personality, The Right of Publicity, and Preemption,* 135 Harv. L. Rev. 1271 (2022).



#### **R. POLK WAGNER**

"It is not possible to overstate the importance of claim construction to the soundness of the patent system, especially including patent quality. Unless and until all persons involved—the patentee, the examiners, the courts, and the competitors or the public—have a framework for agreement concerning the scope of a patent claim, there is almost no point in trying to do anything else."

#### **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 more than 20 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 Carey Law from 2017 to 2019 and received the Robert A. Gorman Award for Excellence in Teaching in 2015. Before joining the Penn Carey Law faculty in 2000, Wagner served as a law clerk to Judge Raymond C. Clevenger III of the U.S. Court of Appeals for the Federal Circuit. He was the 1994-1995 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**

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

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

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).



#### **TESS WILKINSON-RYAN**

"When considering contracts that seem straightforward, parties often interpret some terms to be vague or ambiguous. Until notified otherwise, I want to give one party the chance to make the argument that they were allowed to understand a conversation and interpret the terms of the contract their way."

#### **Tess Wilkinson-Ryan**

Professor of Law and Psychology

Tess Wilkinson-Ryan studies the psychology of legal decisionmaking, particularly the role of moral judgment, with a 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. As a student at Penn Carey Law, she was an Associate Editor of the *University of Pennsylvania Law Review*. In 2012, Wilkinson-Ryan was awarded the A. Leo Levin Award for Excellence in an Introductory Course and in 2014 the Harvey Levin Memorial Award for Teaching Excellence.

#### **Expertise**

Contracts, Behavioral Economics, Law and Social Sciences

#### **Education**

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

#### **Courses Taught**

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

#### **Representative Publications**

Justifying Bad Deals, 169 U. PA. L. REV. 193 (2020).

*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).

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

#### **Recent Publications**

A Comment on Colla and Gulati, Cheeky Contracting, 85 L. & CONTEMP. PROBS. 127 (2022).



#### **CHRISTOPHER YOO**

"This past year, I had the honor to serve as the Expert for the Broadband Commission on Sustainable Development's Working Group on Smartphone Access. Efforts to close the digital divide have reached a turning point. Of the estimated 2.7 billion people who remain offline, 85% have access to an Internet connection. This Working Group empirically studied which strategies had proven the most promising in overcoming barriers preventing people from obtaining access to smartphones and other devices essential to getting connected. We are now helping to organize action-oriented task forces designed to make the report's recommendations a reality."

#### **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 world's leading authorities on law and technology and is recognized as one of the most cited scholars in administrative, regulatory, and intellectual property law. His major research projects include examining big data and antitrust; empirically 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 United States; and studying copyright theory as well as network neutrality. The author of more than 100 scholarly works, Yoo testifies frequently before the U.S. Congress, Federal Communications Commission, Federal Trade Commission, U.S. Department of Justice, and foreign governments. As a student at Northwestern, he served as an Associate Articles Editor of the Northwestern University Law Review. Before joining the academy, Yoo served as a law 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**

Internet and Communications Law, Antitrust, Privacy Law, Copyright, 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, University of California, Los Angeles AB 1986 Harvard University

#### **Courses Taught**

- Internet Law
- Antitrust
- Privacy
- Introduction to Intellectual Property

• Intellectual Property Scholarship

- Artificial Intelligence and the Law
- Law & Innovation Seminar
- Copyright Theory
- Technology and Policy

#### **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) (review essay).

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

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

#### **Recent Publications**

Community Networks as Models to Address Connectivity Gaps in Underserved Communities, 38 INFO. DEV. (forthcoming 2022) (with Leon Gwaka & Müge Haseki).

*Optimizing Cybersecurity Risk in Medical Cyber-Physical Devices*, 64 WM. & MARY L. Rev. (forthcoming 2022) (with Bethany Lee).

The Overlooked Systemic Impact of the Right to Be Forgotten: Lessons from Adverse Selection, Moral Hazard, and Ban the Box, 170 U. Pa. L. Rev. ONLINE (forthcoming 2022).

The Political Dynamics of Legislative Reform: What Will Catalyze the Next Telecommunications Act of 1996?, 37 BERKELEY TECH. L.J. (forthcoming 2022) (with Tiffany Keung).

Are Digital Platforms Public Utilities?: Lessons from the Concept's Historical Foundations in U.S. Law, 15 J.L. & ECON. REG. 9 (2022) (with Giovanna Massarotto).

*Municipal Fiber in the United States: A Financial Assessment,* 46 TELECOMM. Pol'v 102292 (2022) (with Timothy Pfenninger & Jesse Lambert).

*Net Neutrality, Network Slicing, and the Deployment of 5G and 6G, in* EUROPE'S FUTURE CONNECTED: POLICIES AND CHALLENGES FOR 5G AND 6G NETWORKS 65 (Erik Bohlin & Francesco Cappelletti eds., European Liberal Forum 2022) (with Tiffany Keung).

*Privacy in the Age of Contact Tracing: An Analysis of Contact Tracing Apps in Different Statutory and Disease Frameworks*, 4 J.L. & INNOVATION 102 (2021) (with Apratim Vidyarthi).

*Privacy vs. Transparency: Handling Protected Materials in Agency Rulemaking*, 96 IND. L.J. 1259 (2021) (with Kellen McCoy).

*Due Process in Antitrust Enforcement: Normative and Comparative Perspectives*, 94 S. CAL. L. REV. 843 (2021) (with Thomas Fetzer, Shan Jiang, & Yong Huang).

The First Amendment, Common Carriers, and Public Accommodations: Net Neutrality, Digital Platforms, and Privacy, 1 J. FREE SPEECH L. 463 (2021).

Herbert Hovenkamp as Antitrust Oracle: Appreciating the Overlooked Contributions of the New Harvard School, in Herbert Hovenkamp: The Dean OF AMERICAN ANTITRUST LAW, LIBER AMICORUM 3 (Nicholas Charbit & Sébastien Gachot eds., Concurrences 2021).

Self-Actualization and the Need to Create as a Limit on Copyright, in LIMITATIONS AND EXCEPTIONS TO COPYRIGHT LAW IN COMPARATIVE PERSPECTIVE 12 (Shyamkrishna Balganesh, Wee Loon Ng-Loy & Haochen Sun eds., Cambridge 2021).

Conway's Law, the Mirroring Hypothesis, and the Overlooked Importance of Technological Considerations, CPI ANTITRUST CHRON., Oct. 2021, at 49.

STRATEGIES AND BUSINESS MODELS FOR IMPROVING BROADBAND CONNECTIVITY IN LATIN AMERICA AND THE CARIBBEAN: GUIDELINES FOR THE PLANNING, INVESTMENT, AND ROLLOUT OF BROADBAND NETWORKS (Interamerican Development Bank Report 2021) (with Pau Puig Gabarró, Antonio García Zaballos, Enrique Iglesias Rodriguez, Ana Sepúlveda, & Alex Wong).

Internet Connectivity Among Indigenous and Tribal Communities in North America - A Focus on Social and Educational Outcomes (Univ. of Pa. Pub. L. & Legal Theory Rsch. Paper Series No. 21-13, 2021) (with Leon Gwaka & Müge Haseki).

What Is the Relationship Between Language and Thought?: Linguistic Relativity and its Implications for Copyright (Univ. of Pa. Pub. L. & Legal Theory Rsch. Paper Series No. 21-32, 2021).



#### 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. Allen is recognized for scholarship about legal philosophy, women's reproductive rights, and diversity, equity, and inclusion in higher education. A graduate of Harvard Law School with a PhD in philosophy, she began her legal career as an associate at Cravath, Swaine & Moore LLP. In 2018, she was elected president of the American Philosophical Association, Eastern Division. She was elected to the American Academy of Arts and Sciences in 2019 and 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 six books and more than 120 articles, book chapters, and essays, has also contributed to popular magazines, newspapers, and blogs and frequently appears on nationally broadcast television and radio programs. She has been an active member of editorial, advisory, and charity boards as well as professional organizations relating to her expertise in law, philosophy, and health care. She serves on the boards of the Future of Privacy Forum, Electronic Privacy Information Center, and National Constitution Center. She was presented the 2022 Privacy Award of the Berkeley Center for Law and Technology.

#### Expertise

Privacy and Data Protection Law, Philosophy of Privacy, Ethics, Bioethics, Philosophy of Law, Torts, Constitutional Law, Health Law, Non-Profit Organizations, Diversity, Equity and Inclusion in Higher Education 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 (ThomsonReuters/West, 3d ed. 2016).

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

Dismantling the "Black Opticon": Privacy, Race, Equity, and Online Data-Protection Reform, 131 YALE L.J. FORUM 907 (2022).

HIPAA at 25-A Work in Progress, 384 New Eng. J. Med. 2169 (2021).

Presidential Address: The Philosophy of Privacy and Digital Life, 93 Proc. Am. Phil. Ass'n 21 (2019).



#### Tom Baker

#### William Maul Measey Professor of Law and Health Sciences

Tom Baker is a highly regarded insurance expert, a leading scholar of insurance law and policy, and a devoted law teacher. His research explores insurance law, institutions, and markets using methods from history, economics, psychology, and sociology. His many books, articles, and reports address such topics as the impact of insurance on personal injury and securities litigation, health insurance reform, insurance underwriting and claims management, the historical development of insurance institutions, insurance company restructuring, and many aspects of insurance coverage. His current research topics include cyber liability and insurance, long-term care insurance, secondary insurance markets, and the empirical study of insurance litigation. Baker served as the Reporter for the American Law Institute's Restatement of the Law, Liability Insurance, and is a co-founder of Picwell, a health data analytics company that provides advanced decision support tools to health insurance exchanges, insurers, and employers. Before joining the Penn Carey Law faculty in 2008, Baker served for eleven years as the inaugural Connecticut Mutual Professor and Director of the Insurance Law Center at the University of Connecticut. After graduating from Harvard Law School, Baker clerked for Judge Juan R. Torruella of the U.S. Court of Appeals for the First Circuit, practiced with the law firm of Covington & Burling LLP, served as Associate Counsel to the Independent Counsel Iran/Contra, and entered law teaching as an associate professor at the University of Miami Law School.

#### **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**

SHAREHOLDER LITIGATION (Univ. of Chicago 2010) (with Sean Griffith).

The Medical Malpractice Myth (Univ. of Chicago 2005).

Back to the Future of Cyber Insurance, 2019 PLUS J. 1.

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. Coglianese is a public member of the Administrative Conference of the United States and chairs its Committee on Rulemaking. He is also a co-chair of the American Bar Association's Administrative Law Section Committee on Regulatory Policy, past co-chair of the Section's Committee on Rulemaking and Committee on E-government, and a past member of the Section's Council. Coglianese served on committees of the National Academies of Sciences, Engineering, and Medicine where he studied ways to improve regulatory design and enforcement and currently chairs a committee on new coast guard authorities. Coglianese has served as a consultant to the Administrative Conference of the United States, Environment Canada, Organization for Economic Cooperation and Development, U.S. Department of Commerce, U.S. Department of Transportation, and U.S. Environmental Protection Agency. He developed and serves as the faculty director of Penn Carey Law's executive education certificate program in regulatory analysis and decision-making. He was a founding editor of the peer-reviewed journal Regulation & Governance and founded and serves as faculty advisor to The Regulatory Review.

#### **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**

Algorithm vs. Algorithm, 72 DUKE L.J. 1281 (2022) (with Alicia Lai).

Antitrust by Algorithm, 2 Stan. Computational Antitrust 1 (2022) (with Alicia Lai).

Moving Toward Personalized Law, U. CHI. L. REV. ONLINE 1 (2022).

*Regulating New Tech: Problems, Pathways, and People*, 1 TechREG CHRONICLE (2021).

*Unrules*, 73 STAN. L. REV. 885 (2021) (with Gabriel Scheffler & Daniel Walters).



#### **Jonathan Klick**

Charles A. Heimbold, Jr. Professor of Law

Jonathan Klick's work focuses on identifying the causal effects of laws and regulations on individual behavior using cuttingedge econometric tools. Specific topics he addresses include the relationship between abortion access and risky sex, the health behaviors of diabetics, the effect of police on crime, addiction as rational choice, how liability exposure affects the labor market for physicians, as well as a host of other issues. His scholarship has been published in numerous peer-reviewed journals, including the *Journal of Economic Perspectives*; *The Journal of Law & Economics*; *The Journal of Law, Economics, & Organization*; and *The Journal of Legal Studies*. He has published papers in the *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**

*Is the Digital Economy Too Concentrated?* (U. of Pa. L. & Econ. Rsch. Paper Series No. 21-12, 2021).

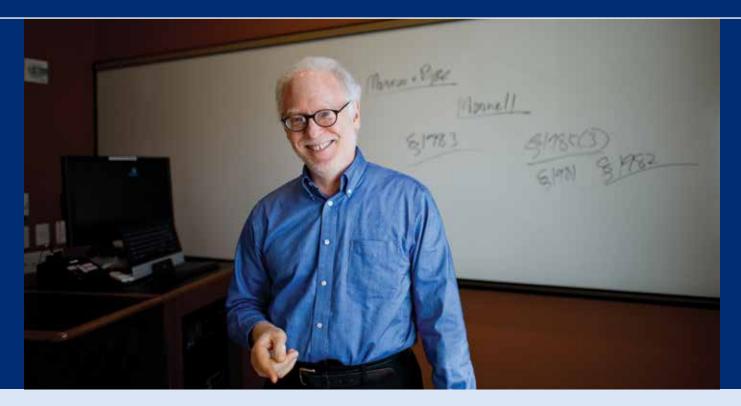
Requiem for a Paradox: The Dubious Rise and Inevitable Fall of Hipster Antitrust, 51 ARIZ. ST. L.J. 293 (2019) (with Joshua Wright, Elyse Dorsey & Jan Rybnicek).

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

Does Anyone Get Stopped at the Gate? An Empirical Assessment of the Daubert Trilogy in the States, 20 Sup. Ct. Econ. Rev. 1 (2012) (with Eric Helland).

*Two Dimensions of Regulatory Competition*, 26 INT'L REV. L. & ECON. 56 (2006) (with Francesco Parisi & Norbert Schulz).

#### **CTIC Secondary Faculty**



#### 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 Beacon Award for Exemplary Pro Bono Service in 2011 and Penn Carey Law's A. Leo Levin Award for Excellence in an Introductory Course in 2006.

#### 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 21st Century
- Individual Rights and Health Care
- Privacy and Disclosure

#### **Representative Publications**

*Spelling Out* Spokeo, 165 U. PA. L. REV. ONLINE 47 (2016) (with Craig Konnoth).

"Spooky Action at a Distance": Intangible Injury in Fact in the Information Age, 18 U. P.A. 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).



# Juan Camilo Castillo

Assistant Professor of Economics, School of Arts and Sciences

Juan Camilo Castillo's main interests are in industrial organization, microeconomic theory, and market design with a focus on online platforms and the digital economy. He has also worked on ways to accelerate widespread access to COVID-19 vaccines and analyzed the economics of violence and illegal drug markets. He has written or co-written papers published by *The Review of Economics and Statistics, American Political Science Review*, and *Science*.

# **Expertise**

Industrial Organization, Microeconomic Theory, and Market Design

# Education

Ph.D. 2020 Stanford University MS 2013, BS Physics 2012, BS Industrial Engineering 2012 Universidad de los Andes, Colombia

# **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. Decherney has testified before the U.S. Copyright Office on many occasions and filed amicus briefs in several cases, including the U.S. 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 written for *The New York Times, Forbes*, and *Inside Higher Ed*. He is also an award-winning documentary and virtual reality filmmaker.

Expertise Cinema and Media Studies, Copyright

# Secondary Appointments

Annenberg School for Communication

Education PhD 2000 New York University BA 1993 Vassar College

# **CTIC Affiliated Faculty**





# **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. He is Faculty Director of the Master of Science in Social Policy Program (MSSP), chairs the Data Analytics for Social Policy Certificate of the MSSP Program, and leads the Social Policy and Practice-Aliadas en Cadena Initiative, 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 a faculty affiliate of the University of Pennsylvania's Latin American & Latino Studies; Gender, Sexuality, and Women's Studies; and the Warren Center for Network & Data Sciences. He is 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 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 (FCC) from 2000 to 2001. He is an expert in microeconomics, management, and the public policy aspects of technology and telecommunications firms. His 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





# Holly Fernandez Lynch

John Russell Dickson, MD Presidential Assistant Professor of Medical Ethics, Perelman School of Medicine

A lawyer and bioethicist by training, Holly Fernandez Lynch conducts conceptual and empirical research and scholarship in bioethics and health law with the goal of influencing institutional and governmental policy. An expert in clinical research ethics and regulation and Food and Drug Administration (FDA) pharmaceutical policy, she is founder and cochair of the Consortium to Advance Effective Research Ethics Oversight (www.AEREO.org) and an active member of the NYU Working Group on Compassionate Use and Preapproval Access (CUPA). At the University of Pennsylvania, she co-chairs the Research Ethics and Policy Lecture Series and teaches in both the Master of Law and Master of Bioethics programs, with courses including Fundamentals of Health Law and Policy, Ethics, Regulation, and Politics of Science, and Bioethics and the Body. Fernandez Lynch has worked as an attorney in private practice, as a bioethicist serving NIH's Division of AIDS, as an analyst with President Obama's Commission for the Study of Bioethical Issues, and as executive director of Harvard Law School's bioethics and health law research program. She was named a Greenwall Faculty Scholar in 2019 and elected a fellow of the Hastings Center in 2021.

### **Expertise**

Clinical Research Ethics, Ethics of Gatekeeping in Health Care, Access to Investigational Medicines Outside Clinical Trials, Food and Drug Administration (FDA) Policy

#### **Secondary Appointments**

University of Pennsylvania Carey Law School

#### **Joseph Harrington**

Patrick T. Harker Professor; Department Chair, 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, Econometrica, Journal of Political Economy*, and *Management Science*. His research focuses on collusion and cartels with the objectives of understanding collusive practices and designing competition policy to detect and deter collusion. This work is often at the interface of theory and practice and has been presented before numerous competition authorities, including those of Chile, the European Union, Japan, South Africa, and the United States. He has authored or co-authored three books or monographs on collusion, *How Do Cartels Operate?* (Now Publishers 2006), *The Theory of Collusion and Competition Policy* (MIT 2017), and *Hub-and-Spoke Cartels: Why They Form, How They Operate, and How to Prosecute Them* (MIT 2021). He has also written two textbooks, *Economics of Regulation and Antitrust* (MIT, 5th ed. 2018) and *Games, Strategies, and Decision Making* (Worth Publishers, 2d ed. 2015).

# Expertise

Industrial Organization, Microeconomic Theory

#### Education

PhD 1984 Duke University BA 1979 University of Virginia



# Kartik Hosanagar

John C. Hower Professor; Professor of Operations, Information and Decisions, The Wharton School

Kartik Hosanagar's research focuses on the digital economy, in particular on the impact of analytics and algorithms on consumers and society, Web3, Internet media, Internet marketing, and e-commerce. Hosanagar serves as a department editor for the journal Management Science and has previously served as a senior editor for the journals Information Systems Research and MIS Quarterly. He is a ten-time recipient of MBA or undergraduate teaching excellence awards at the Wharton School, has received several best paper awards, and has been recognized as one of the world's top 40 business professors under 40. He was the founding CEO of Jumpcut Media, a disruptive start-up at the intersection of Web3 and Hollywood. He also co-founded and developed the core intellectual property for Yodle Inc., a venture-backed firm acquired by Web.com in 2016. He has served on the advisory boards of Milo (acquired by eBay) and is involved with many other start-ups as either an investor or board member. His past consulting and executive education clients include Google, American Express, Citi, and others. Hosanagar was a co-host of the SiriusXM show, The Digital Hour.

### **Expertise**

Internet Advertising, E-Commerce, Digital Media

#### **Education**

PhD, MPhil 2003 Carnegie Mellon University MS 1999, BS 1998 Birla Institute of Technology and Science

## **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. Kearns integrates problems in these areas with methods from theoretical computer science and related disciplines. While most 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, he 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; Department of Statistics and Data Science and the Department of Operations, Information and Decisions, The Wharton School

## Education

PhD 1989 Harvard University BS 1985 University of California, Berkeley



# **Emily Largent**

Emanuel and Robert Hart Assistant Professor of Medical Ethics and Health Policy, Perelman School of Medicine

Emily Largentis the Emanuel and Robert Hart Assistant Professor of Medical Ethics and Health Policy at Penn's Perelman School of Medicine. She is Senior Fellow at the Leonard Davis Institute of Health Economics and is affiliated with the Center for Health Incentives and Behavioral Economics. Largent's work explores ethical and regulatory aspects of human subject research and the translation of research findings into care with a focus on Alzheimer's disease. Her work is supported by the National Institute on Aging. In 2020, she was named a Greenwall Faculty Scholar; her project, *Autonomy on the Precipice of Cognitive Decline*, seeks to understand how our evolving understanding of Alzheimer's disease affects patients and their families. Largent's work has been published in leading bioethics and medical journals, including *The Hastings Center Report, American Journal of Bioethics, The New England Journal of Medicine*, and *JAMA*. She co-authored *Clinical Research Ethics Consultation: A Casebook* (Oxford 2012).

#### **Expertise**

Ethics of Clinical Research, Translation of Clinical Research into Patient Care, Effects of Cognitive Decline on Patients and Families

# **Secondary Appointments**

University of Pennsylvania Carey Law School

#### Education

PhD, JD 2016 Harvard University BSN 2006 University of Pennsylvania School of Nursing BSFS 2004 Georgetown University School of Foreign Service

# Ani Nenkova

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

Ani Nenkova's main areas of research are computational linguistics and artificial intelligence with emphasis on developing computational methods for analysis of text quality and style, discourse, affect recognition, and summarization. Nenkova and her collaborators are recipients of the best student paper award at SIGDial in 2010 and the best paper award at EMNLP- CoNLL in 2012. The Penn team co-led by Nenkova won the audio-visual emotion recognition challenge (AVEC) for word-level prediction in 2012. She is a co-editor-in-chief of *Transactions of the Association for Computational Linguistics (TACL)* and formerly an editorial board member of *Computational Linguistics* (2009-2011) and associate editor for *IEEE/ACM Transactions on Audio, Speech and Language Processing* (2015-2018). Nenkova regularly serves as an area chair/senior program committee member for ACL, NAACL and AAAI. She was a program co-chair for SIGDial 2014 and NAACL-HLT in 2016.

### **Expertise**

Artificial Intelligence, Computational Linguistics, Computational Methods

# Education

PhD 2006 Columbia University MA Sofia University



### **Aviv Nevo**

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

Aviv Nevo draws from his experience across academic, government, 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, health care, 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 U.S. 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 Media Systems and Industries, Annenberg School for Communication

Joseph Turow's work lies at the intersection of marketing, digital media, and society. His writings explore the power dynamics that shape cultural materials through which people learn about the world. Turow is an elected fellow of the International Communication Association and received a Distinguished Scholar Award from the National Communication Association. In 2012, the TRUSTe Internet privacy-management organization designated him a "privacy pioneer" for his research and writing on marketing and digital privacy. He has authored twelve and edited five books and has written more than 160 articles on mass media industries. His most recent book is *The Voice Catchers: How Marketers Listen In to Exploit Your Feelings* (Yale 2021).

# **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



# **Rakesh Vohra**

George A. Weiss and Lydia Bravo Weiss University Professor; Department of Economics, School of Arts and Sciences; Department of Electrical and Systems Engineering, School of Engineering and Applied Science; 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 the 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 the University of Pennsylvania through the Penn Integrates Knowledge program, a university-wide initiative to integrate research across different educational disciplines. Before joining Penn, Vohra was the John L. and Helen Kellogg Professor of Managerial Economics & Decision Sciences at Northwestern University. He is the author of *Prices and Quantities* (Cambridge 2020) and *Principles of Pricing: An Analytical Approach* (Cambridge 2012).

#### **Expertise**

Game Theory, Mechanism Design, Operations Research

# **Secondary Appointments**

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

### **Education**

PhD 1985 University of Maryland MSc 1981 London School of Economics BSc 1980 University College London

# **Kevin Werbach**

Liem Sioe Liong/First Pacific Company Professor; 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). Werbach was the editor of After the Digital Tornado: Networks, Algorithms, Humanity (Cambridge 2020). 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



**Pinar Yildirim** Assistant Professor of Marketing, The Wharton School

Pinar Yildirim studies media, technology, and information economics. She focuses on applied theory and applied economics of online platforms, effects of technology and AI, social and economic networks, media bias, and political economy. Her research has appeared in top economics and business marketing journals, including the American Economic Review, Marketing Science, Journal of Economics & Management Strategy, Quantitative Marketing & Economics, Journal of Marketing Research, Management Science, and Journal of Marketing. Yildirim is on the editorial boards of Marketing Science and Journal of Marketing Research. She is also an area editor for International Journal of Research in Marketing. Yildirim has received the Erin Anderson Award for Emerging Mentor and Scholar, the Seenu Srinivasan Young Scholar Award in Quantitative Methodology, and a Teaching Excellence Award from the Wharton School. She teaches in Wharton's executive education, MBA, and undergraduate programs and is a frequent contributor to Knowledge@Wharton and XM Wharton Business Radio.

#### **Expertise**

Advertising, Industrial Organization, Media, News Media, Open Innovation, Political Economy, Privacy, Social Media, Social Networks, Two-sided Matching

#### Education

PhD. 2012, MS 2006 University of Pittsburgh BS 2004 Middle East Technical University, Turkey



# **Thomas Fetzer**

Chair of Public Law, Regulatory Law and Tax Law, University of Mannheim Law School, Germany

Since 2012, Thomas Fetzer has served as Chair of Public Law, Regulatory Law and Tax Law at the University of Mannheim Law School in Germany. He is an academic director of the Mannheim Center for Competition and Innovation (MaCCI) and the Leibniz Science Campus MannheimTaxation as well as a research associate at the Leibniz Center for European Economic Research (ZEW). From 2014 to 2017, he served as Vice Dean and then Dean of the School of Law and Economics. In 2021, he was appointed Vice-President for Strategic Planning, Internationalization and Equal Opportunity. His research focuses on the law of sector-specific regulation of network industries, in particular telecommunications regulation, competition, and regulatory issues in the digital economy, and European tax law.

#### **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 and senior managing partner of PIPV Capital, an IP-based private equity firm, and chairs the board of directors for both Ibere Pharmaceuticals and Zelira Therapeutics. He has over 35 years of experience in the legal, finance, business management, health care, and pharmaceutical industries. Before co-founding PIPV Capital, Imasogie conceptualized and established GlaxoSmithKline Ventures and was its founding vice president. He has also held senior commercial and R&D positions for other pharmaceutical companies. At the University of Pennsylvania, Imasogie is a member of the Board of Trustees and a member of its Executive Committee. He chairs the Advisory Board of the University of Pennsylvania Carey Law School, where he teaches a course entitled Intellectual Property and National Economy Value Creation.

# 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

# Matthew Pearson Partner, Akin Gump Strauss Hauer & Feld LLP

In 2006, Kent Jordan was appointed by President George W. Bush to serve as a U.S. Circuit Judge for the Third Circuit. Before the appointment, Judge Jordan served as U.S. District Judge for the District of Delaware from 2002 to 2006. He is a former law clerk to Judge James L. Latchum, U.S. District Court for the District of Delaware, and Assistant U.S. Attorney for the District of Delaware where he served as Civil Chief in 1991 and 1992. Before taking the bench, Judge Jordan served as an officer and 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 is a patent litigator in the areas of pharmaceuticals, chemistry, and biology, with a focus on biologics and cancer treatments. Before entering private practice, Pearson clerked for Judge Kent Jordan of the U.S. District Court for the District of Delaware and for 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**

Assistant Deputy General Counsel, Technology and Licensing, Comcast Corporation

Trevor Cloak advises Comcast on intellectual property and technologyrelated matters, including complex technology transactions. Before working at Comcast, he was a member at the law firm Cozen O'Connor, where he represented clients on all aspects of intellectual property due diligence and in drafting and negotiating technology, software, softwareas-a-service, and other intellectual property agreements. At Penn Carey Law, Cloak teaches an introductory course on technology law and ethics.

#### Education

JD 2008 Vanderbilt Law School BS 2005 Middlebury College

# Lauren Steinfeld

Chief Privacy Officer, Penn Medicine; Assistant Vice President for Audit, **Compliance and Privacy** 

Lauren Steinfeld serves as Chief Privacy Officer for Penn Medicine and Assistant Vice President for Audit, Compliance and Privacy. Steinfeld leads and oversees the HIPAA compliance program and other privacy initiatives for Penn's six hospitals, more than 250 physician practices, and the School of Medicine research program. She teaches privacy law at the University of Pennsylvania Carey Law School with Prof. Christopher Yoo and is a Coursera instructor in Regulatory Compliance Specialization, which has over 13,000 learners. She previously served as Chief Privacy Officer for the University of Pennsylvania.

Before joining Penn, Steinfeld worked at the Office of Management and Budget (OMB) as the Associate Chief Counselor for Privacy. In this role in the Clinton Administration, she worked closely on drafting the HIPAA privacy rules as well on governmental data sharing, financial privacy, and ECPA privacy matters. She also served as Attorney Advisor to Federal Trade Commissioner (FTC) Mozelle Thompson.

#### Education

JD 1992 New York University School of Law BA 1989 University of Pennsylvania





# 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. He is currently involved with the 1 World Connected project under the supervision of Prof. 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. The project was selected as one of the top ten 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, policymakers, 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 Prof. Christopher Yoo and has been working on comparative studies on broadband deployments around the 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 United States for his graduate studies, Han worked as a marketing director in the mobile Internet sector in Korea for six years.

# Education

PhD 2016 Pennsylvania State University MA 2009 Indiana University Bloomington BA 2000 Hankuk University of Foreign Studies





# Müge Haseki Research Fellow

Müge Haseki's research concentrates on the 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 in disadvantaged and underserved communities. Haseki has conducted research on the use of mobile health applications by pregnant women and health care 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 United States, 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, she worked on the entrepreneurship development program for youth in Sri Lanka.

# Education

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

# Sindhura K S Research Fellow

Sindhura K S works on the 1 World Connected project. She analyzes the socioeconomic benefits of Internet connectivity and access to smartphone devices, addresses barriers, and explores methods to increase smartphone access in communities with a lack of digital infrastructure and resources.

Sindhura was an asset management analyst at Goldman Sachs, where she evaluated strategies to enhance the environment, social, and governance alignment of investments and administered a suite of mutual funds for retirement investors. Before that, Sindhura was a software engineer in the asset management technology unit of Fidelity Investments.

# Education

MBA 2021 Indian Institute of Management Bangalore BEng 2017 Ramaiah Institute of Technology, Bangalore



# Giovanna Massarotto

Academic Fellow

Giovanna Massarotto's scholarship focuses on how technology affects society and the intersection of law, economics, and computer science. She is an active scholar and author of *Antitrust Settlements: How a Simple Agreement Can Drive the Economy* (Wolters Kluwer 2019) and of papers in many prestigious journals, including the *Journal of Competition Law & Economics* and *John Marshall Review of Intellectual Property Law.* 

Massarotto has been invited to speak at the OECD Blockchain Policy Forum, Competition and Markets Authority (CMA), and multiple universities such as the University of Oxford, Stanford Center for Legal Informatics, Codex, University of Zurich (UZH), and the Global Antitrust Institute (GAI). Before arriving at Penn, she was a visiting research fellow at Fordham University in New York and then worked in Washington, D.C., for an economic consulting firm specializing in intellectual property law, economic regulation, and antitrust in the telecommunications and hightech industries. She was an academic visitor at the University of Oxford and taught for Bocconi University and the University of Iowa Tippie College of Business as an adjunct professor. She is an affiliate of the University College London Centre for Blockchain Technologies (UCL CBT), where she ran and taught a program in legal issues in blockchain technologies.

# **Education**

PhD 2014 University of Bocconi MS 2008, BA 2006 Carlo Cattaneo University-LIUC

# Alex Mueller Research Fellow

Alex Mueller's research focuses on Internet standards development and governance. Over the last year, he led a project studying a set of new Internet architectures and protocols that have been proposed as potential alternatives to the existing model. The project aims to assess the potential implications of these proposals on the future of Internet functionality, interoperability, and openness. He has been instrumental in Penn's admission to the International Telecommunications Union (ITU) as a non-state member, better positioning the university to track important developments and make contributions in global Internet governance.

Mueller served as an adjunct lecturer at the New Jersey Institute of Technology during the fall 2021 semester. Before attending law school, he was an advisory associate in cybersecurity and privacy for a leading global professional services firm where he helped clients strengthen their data protection programs and security postures.

# Education

JD 2021 University of Pennsylvania Carey Law School BS 2016 Marquette University



# Sharada Srinivasan

Non-Resident Research Fellow

Sharada Srinivasan's research contributes to the 1 World Connected project and is focused on the empirical validation of innovative initiatives that address supply-and-demand-side challenges to improve broadband adoption globally. Between 2016-2019, she helped develop 125 case studies on innovative community-level projects, studying their business models and relative cost effectiveness. Her recent work focuses on the impact of a telemedicine deployment in Vanuatu and on fixed wireless deployments in the United States.

Srinivasan has been an active participant in the intersessional work of the United Nations Internet Governance Forum. In 2018-2019, she co-led the production of the Connecting and Enabling the Next Billions – Phase IV final output report. She also served on the EQUALS Research Group (2017-2020) and the IEEE Humanitarian Activities Committee's Projects and Assessment Subcommittee (2018-2019). Srinivasan joined the World Bank Group as part of its Young Professionals Program in 2019, where she currently works in the Digital Development Global Practice on issues relating to broadband adoption and data governance issues.

#### Education

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



# **Caroline Olson** Managing Director

Caroline Olson oversees the daily operations of CTIC and has played a key role in its growth and success. In her leadership position, she has contributed to the Center's program expansion through student and practitioner-oriented events, social media strategy, and the growth and development of staff through innovative approaches.

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. Before 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

Competition & Technology



# Inaugural Research Symposium on the Economics of Digital Services

# September 10-11, 2021

Through a major grant by the John S. and James L. Knight Foundation, CTIC and Penn's Warren Center for Network & Data Sciences awarded grants to scholars worldwide to support new research into the impact of data on the business strategies and practices of today's digital platforms. The symposium convened recipients of nine research grants plus other experts to discuss findings and their ramifications on digital business practices and antitrust policymaking and regulation.



Giovanna Massarotto



Jon Leibowitz



**Opening Remarks** 

# **Rakesh Vohra**

George A. Weiss and Lydia Bravo Weiss University Professor, University of Pennsylvania

# **Christopher Yoo**

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

# The Economics of Digital Services: Views from Enforcement Agency Leaders

#### Makan Delrahim

Adjunct Lecturer in Law, University of Pennsylvania; former Assistant Attorney General, Antitrust Division, U.S. Department of Justice

# Jon Leibowitz

Former Chairman, Federal Trade Commission

# Moderator

Herbert Hovenkamp James G. Dinan University Professor, University of Pennsylvania

# Consumer Surplus and Technology Releases in the App Ecosystem

Jin-Hyuk Kim Associate Professor, University of Colorado Boulder

Yidan Sun Illinois Institute of Technology

Liad Wagman Professor of Economics, Illinois Institute of Technology

Rakesh Vohra



Michael Katz

# Macroeconomic Analysis of Digital Advertising

Jeremy Greenwood Professor of Economics, University of Pennsylvania

**Yueyuan Ma** University of Pennsylvania

**Mehmet Yörükoglu** Professor of Economics, Koç University, Istanbul

# The Effect of Ad-Blocking and Anti-Tracking on Consumer Behavior

**Alessandro Acquisti** Professor of Information Technology and Public Policy, Carnegie Mellon University

**Cristobal Cheyre** Assistant Professor, Cornell University

Alisa Frik UC Berkeley School of Law

Li Jiang Assistant Professor, The George Washington University

Florian Schaub Assistant Professor, University of Michigan



Andrew Sweeting

# **Data Neutrality and Market Competition**

Hanming Fang Professor of Economics, University of Pennsylvania

Soo Jin Kim Assistant Professor, ShanghaiTech University

# Economics of Digital Services: Views from Enforcement Economists

# Michael Katz

Sarin Chair in Strategy and Leadership, UC Berkeley School of Law; former Deputy Assistant Attorney General for Economic Analysis, Antitrust Division, U.S. Department of Justice

# Andrew Sweeting

Professor of Economics, University of Maryland; former Director, Bureau of Economics, Federal Trade Commission

# Moderator

# Aviv Nevo

George A. Weiss and Lydia Bravo Weiss University Professor, University of Pennsylvania; former Deputy Assistant Attorney General for Economic Analysis, Antitrust Division, U.S. Department of Justice

# Competition & Technology | Events



Aviv Nevo

# Media Plurality and News Consumption: The Impact of Search Engines on the Media Industry

Joan Calzada Associate Professor, University of Barcelona

Néstor Duch-Brown Joint Research Centre (JRC), European Commission

**Ricard Gil** Associate Professor, Smith School of Business, Queen's University

# Quantifying the User Value of Social Media Data

**Alessandro Acquisti** Professor of Information Technology and Public Policy, Carnegie Mellon University

**Avinash Collis** Assistant Professor, McCombs School of Business, The University of Texas at Austin

Alex Moehring Massachusetts Institute of Technology

Ananya Sen Assistant Professor, Carnegie Mellon University



Makan Delrahim

# Smart Contracts, IoT Sensors and Democratization of Competitive Landscape

Yannis Bakos Associate Professor, Stern School of Business, New York University

Hanna Halaburda New York University, Associate Professor, Stern School of Business, New York University

# **Competition in Cloud Computing**

Juan Camilo Castillo Assistant Professor of Economics, University of Pennsylvania

Amit Gandhi Professor of Economics, University of Pennsylvania

# Big Data Adoption and Employment in Small and Medium Enterprises

**Ricard Gil** Associate Professor, Smith School of Business, Queen's University



Hanna Halaburda

# Penn Carey Law Antitrust Association (PCLAA) Annual Symposium: Competition Around the Globe and Beyond

# October 29, 2021

Leading scholars and practitioners from the public and private sectors convened to discuss recent U.S. and international developments and trends in competition law enforcement in the digital markets. Panels examined the interaction among antitrust policy, consumer protection, and data protection; ways to promote greater convergence and sound enforcement of laws governing unilateral conduct; use of algorithms, AI, and predictive analytics in business decisions; and the role of regulation in creating more competitive, innovative, and affordable health care services. Top regulatory authorities from the United States, Brazil, Greece, and India participated.



Bhawna Gulati



Ioannis Lianos



Alexandre Cordeiro

# **Opening Remarks**

Vivian Terng LLM Candidate '21, University of Pennsylvania Carey Law School

# **Cases that Shaped Antitrust Law in the United States**

**Howard Langer** Adjunct Professor, University of Pennsylvania Carey Law School

# How Antitrust Authorities Are Handling the New Challenges

Alexandre Cordeiro President, Administrative Council for Economic Defense (CADE), Brazil

Bhawna Gulati Joint Director, Competition Commission of India (CCI), India

**Caldwell Harrop** Assistant Chief, International Section, Antitrust Division, U.S. Department of Justice

**Ioannis Lianos** President, Hellenic Competition Commission (HCC), Greece

# Moderator

Vivian Terng LLM Candidate '21, University of Pennsylvania Carey Law School

# Competition & Technology | Events



Caldwell Harrop



Christopher Yoo, Giovanna Massarotto, Thibault Schrepel, Ana Carolina Ramirez

# Unilateral Conduct Vis-à-Vis Investigation on Different Jurisdictions

William Kovacic

Global Competition Professor of Law and Policy and Director of the Competition Law Center, George Washington University Law School

Ravisekhar Nair Partner, Economic Laws Practice, India

Barbara Rosenberg Partner, Barbosa Müssnich Aragão, Brazil

Ian Simmons Partner, O'Melveny & Myers LLP, United States

Moderator Szu-Yi (Julie) Lee LLM Candidate '21, University of Pennsylvania Carey Law School

# **Keynote Address**

Herbert Hovenkamp James G. Dinan University Professor, University of Pennsylvania

# Algorithms, Artificial Intelligence and Antitrust

**Giovanna Massarotto** Academic Fellow, Center for Technology Innovation & Competition (CTIC), University of Pennsylvania Carey Law School

Thibault Schrepel Associate Professor, VU Amsterdam University; Faculty Affiliate, Stanford University CodeX Center

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

Moderator Ana Carolina Ramirez LLM Candidate '21, University of Pennsylvania Carey Law School

# CTIC | 2021-2022



Herbert Hovenkamp and symposium attendees



PCLAA board members

# Perspectives on Health Care: The Role of Antitrust and Regulation

Angus Corbett Adjunct Professor, University of Pennsylvania Carey Law School

# Ioana Marinescu

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

# Peter Mucchetti

Partner, Clifford Chance; Vice Chair, ABA Antitrust Division's Healthcare and Pharmaceuticals Committee

## Moderator

# Carolina Destailleur Bueno

LLM Candidate '22, University of Pennsylvania Carey Law School

# **Closing Remarks**

Ana Carolina Ramirez LLM Candidate '21, University of Pennsylvania Carey Law School

# Antitrust Trends for M&A Practice

# April 15, 2022

A panel of legal experts discussed trends and regulations pertaining to acquisitions of smaller companies by Big Tech and their effect on the venture capital and emerging company markets. The event was co-sponsored by the Penn Carey Law Antitrust Association (PCLAA) and M&A Society.



Jeff Farah, Melanie Toledo Daniel Sokol, Kelly Fayne

**Jeff Farrah** General Counsel, National Venture Capital Association (NVCA)

Kelly Fayne Partner, Latham & Watkins LLP

**D. Daniel Sokol** Carolyn Craig Franklin Chair in Law and Business, USC Gould School of Law

# Moderator Melanie Toledo LLM Candidate '22, University of Pennsylvania Carey Law School

# Do Digital Markets Need a New Antitrust Regime? Views from Europe and the U.S.

# April 25, 2022

Europe's recently enacted Digital Markets Act reflects a new legal approach to competition that bases liability on the size of firms rather than on market dominance while also employing regulatory-style remedies. The U.S. Congress is considering following suit, but not all support a similar change to the current U.S. scheme. U.S. and EU participants debated the issues.



Christopher Yoo, Herbert Hovenkamp, Heike Schweitzer

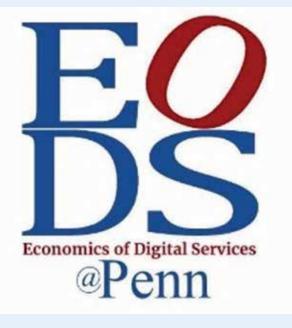
Herbert Hovenkamp James G. Dinan University Professor, University of Pennsylvania

Heike Schweitzer Chair for Private Law, Economic Law and Competition Law, Humboldt University of Berlin

# Moderator

**Christopher Yoo** 

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

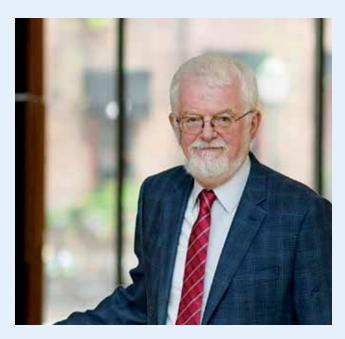


# **Economics of Digital Services (EODS)**

On November 3, 2019, the John S. and James L. Knight Foundation awarded CTIC and Penn's Warren Center for Network & Data Services a \$350,000 three-year grant to fund new independent research into the role data play in digital platforms' business models and the resulting impact on antitrust policy and law. The initiative's co-leaders are Prof. Christopher Yoo and Rakesh Vohra, the George A. Weiss and Lydia Bravo Weiss University Professor of Economics and Electrical and Systems Engineering and the Warren Center's founding co-director.

The first phase of the initiative concluded in September 2021 with the release of full papers, an EODS blog with articles by the researchers, and a symposium where findings were presented and discussed among EODS initiative leaders, researchers, and antitrust experts. Papers covered digital advertising, blockchains and smart contracts, ad-blocking and anti-tracking, search engines, cloud computing, value of social media, data neutrality, big data and employment, and the value of technology releases in the Apple iOS app ecosystem. All materials and the event playback are located at www.pennEODS.org.

Following another competitive application process, the initiative's second phase will begin with the selection of new grant recipients and conclude in September 2022 with the publication of research papers and blog articles as well as another symposium event.



Herbert Hovenkamp

# Herbert Hovenkamp Liber Amicorum: The Dean of American Antitrust Law

Dubbed "the dean of American antitrust law" by *The New York Times*, CTIC core faculty member Herbert Hovenkamp, Penn's James G. Dinan University Professor, is universally recognized as one of the most cited and authoritative antitrust scholars. Contemporary U.S. antitrust doctrine has been forged in large part by his scholarship, which covers every aspect of antitrust law and has been cited in more than three dozen U.S. Supreme Court opinions and well over 1,000 lower court decisions. Fittingly, a tribute book of contributions from academics, civil servants, and colleagues was published in July 2021 by Concurrences.

Edited by Nicolas Charbit & Sebastien Gachot, the collection is structured as a traditional European liber amicorum, or Festschrift, which celebrates and honors a person's life and work through the eyes of peers, colleagues, and former students. The work includes contributions that address areas of Prof. Hovenkamp's scholarship: antitrust reform, the role of economics in antitrust law and innovation, and intellectual property.

Prof. Christopher Yoo wrote the lead chapter, *Herbert Hovenkamp as Antitrust Oracle: Appreciating the Overlooked Contributions of the New Harvard School*, with the aim of clarifying the core commitments that underlay Prof. Hovenkamp's scholarship and the New Harvard School that he champions. According to Prof. Yoo, "A better understanding of Hovenkamp's work and the New Harvard School should prove invaluable to anyone wishing to understand antitrust's likely future."

Intellectual Property

# Is Copyright Phanatical?

# December 1, 2021

The intellectual property litigator who successfully represented the Philadelphia Phillies in *Phillies v. Harrison/Erickson Inc.* discussed the federal court's decision in a copyright dispute concerning the team's mascot, the Phillie Phanatic. The Penn Intellectual Property Group (PIPG) was a co-sponsor.



## Cynthia Dahl, David Wolfsohn

# **Cynthia Laury Dahl**

Practice Professor of Law and Director of the Detkin IP and Technology Legal Clinic, University of Pennsylvania Carey Law School

**David Wolfsohn** Partner, Duane Morris LLP

# Seventh Annual Copyright Scholarship Roundtable

# June 21-22, 2022

The roundtable brought together the country's leading copyright scholars to discuss recently written academic papers covering various issues and perspectives. Eight papers were chosen for inclusion. Columbia Law School co-sponsored and hosted this year's event.

# COPYRIGHT SCHOLARSHIP ROUNDTABLE



# An Empirical Study of Copyright's Substantial Similarity Test

Clark Asay Professor of Law, Brigham Young University Law School

#### Commentator

Matthew Sag Georgia Reithal Professor of Law, Loyola University Chicago School of Law

# Fighting Image Piracy or Copyright Trolling? An Empirical Study of Photography Copyright Infringement Lawsuits

#### Melissa Eckhause

Visiting Assistant Professor of Law, University of Detroit Mercy School of Law

# Commentator

Mala Chatterjee Furman Fellow, New York University School of Law

# **Digital Futility**

**Thomas Haley** Research Assistant Professor of Law, University of Virginia School of Law

# Commentator

# **Christopher Yoo**

John H. Chestnut Professor of law, Communication, and Computer & Information Technology, University of Pennsylvania

# The Emperor's New Copyright

Kristelia Garcia Associate Professor of Law, University of Colorado Law School

Commentator Justin Hughes Hon. William Matthew Byrne, Jr. Distinguished Professor of Law, Loyola Law School

# **Proving Copying**

Shyamkrishna Balganesh Sol Goldman Professor of Law, Columbia Law School

Commentator Alfred Yen Professor of Law, Boston College Law School

# Fair Use and Fair Price

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

Commentator Joseph Fishman Professor of Law, Vanderbilt Law School

### **Co-Creating Equality**

Sarah Polcz Fellow, Center for Law and the Biociences, Stanford Law School

Commentator

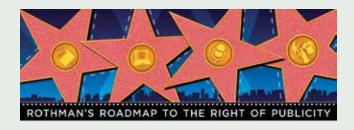
Laura Heymann Chancellor Professor of Law, William & Mary Law School

# Intellectual Property and the Manufacture of Aura

Stefan Bechtold Global Professor of Law, New York University School of Law

# Commentator

**Dan Burk** Distinguished and Chancellor's Professor of Law, University of California, Irvine School of Law



# Spotlight on the Right of Publicity

In March 2022, *Harvard Law Review* published Penn Carey Law and CTIC core faculty member Jennifer Rothman's article, *Navigating the Identity Thicket: Trademark's Lost Theory of Personality, the Right of Publicity, and Preemption.* In it, Prof. Rothman explains how trademark, unfair competition, and state right of publicity laws point in different directions. She explains how a broader vision of trademark law can provide significant guidance on navigating the identity thicket.

The article is just one of Prof. Rothman's recognized works in the right of publicity area. Her book, *The Right of Publicity: Privacy Reimagined for a Public World* (Harvard 2018), has been described as the "definitive biography of the right of publicity." She is also the creator of *Rothman's Roadmap to the Right of Publicity* (rightofpublicityroadmap.com), an online resource that provides analyses of state right of publicity laws and commentary on recent cases and legislation.

CTIC's newest faculty member, Prof. Rothman was recently named the Nicholas F. Gallicchio Professor of Law at Penn Carey Law. An instructor in intellectual property law and policy, trademarks and unfair competition, and other areas, Prof. Rothman will help establish and develop CTIC's newest core area of focus, Entertainment & Media Law, during the 2022-2023 academic year.

Internet & Privacy Law

# State Efforts to Regulate Social Media: Publishers or Common Carriers?

# September 29, 2021

Presented by the Penn Carey Law Chapter of the Federalist Society and sponsored by CTIC, the event examined state efforts to regulate social media.



Richard Epstein, Amanda Shanor

**Richard Epstein** Laurence A. Tisch Professor of Law, New York University School of Law

# Commentator

**Amanda Shanor** Assistant Professor of Legal Studies & Business Ethics, The Wharton School, University of Pennsylvania

# Race and Privacy Regulation

# February 9, 2022

Penn Prof. Anita Allen presented her pathbreaking scholarship on the "Black Opticon," three categories of vulnerability to bias and discrimination faced by African Americans online. Co-sponsored by CTIC, the event was part of the Penn Program on Regulation's 2021-2022 Lecture Series on Race and Regulation, co-sponsored by Penn's Office of Equity and Inclusion, which examined government's regulatory contributions to racial inequities and the policy changes that can help dismantle racist structures.



Anita Allen



Ezekiel Dixon-Román

#### Anita Allen

Henry R. Silverman Professor of Law and Professor of Philosophy, University of Pennsylvania

#### Discussant

#### Ezekiel Dixon-Román

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

#### Moderator

#### **Christopher Yoo**

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

### Opening and Concluding Remarks

#### **Cary Coglianese**

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

# Privacy and Law in the Modern Age

## March 25, 2022

In this American Constitution Society (ACS) event sponsored by CTIC, panels of lawyers, nonprofit leaders, government officials, and academics covered a broad range of unfolding topics, from workplace privacy and reproductive justice to voter privacy and medical autonomy, plus relevant First and Fourth Amendment issues. Two elected U.S. officials participated in the symposium: U.S. Representative Mary Gay Scanlon (D-PA 5th District) and U.S. Senator Sheldon Whitehouse (D-RI). Additional co-sponsors were ACS chapters at Drexel University Thomas R. Kline School of Law, Rutgers Law School, Temple University Beasley School of Law, University of Pennsylvania Carey Law School, and Villanova University School of Law. Saul Ewing Arnstein & Lehr LLP, Ballard Spahr LLP, If/When/How, and Penn Carey Law's HeLPP also co-sponsored the event.



Christopher Hallock, Tom Spiggle, Jamisen Etzel

Mary Gay Scanlon

#### **Opening Remarks**

Sophia Lee Professor of Law and History, University of Pennsylvania

#### **Privacy in the Workplace**

**Christopher Hallock** Senior Deputy Attorney General, Pennsylvania Office of Attorney General

Jamisen Etzel Partner, Lynch Carpenter

**Tom Spiggle** Founder, The Spiggle Law Firm

#### **Reproductive Justice**

Kimberly Mutcherson Co-Dean and Professor of Law, Rutgers Law School

Anita Allen Henry. R. Silverman Professor of Law and Professor of Philosophy, University of Pennsylvania

Kathryn Kolbert Attorney, People for the American Way

## CTIC | 2021-2022

AARY GA



Tess Wilkinson-Ryan, Anupam Chander, Christopher Yoo



#### **Voter Privacy and Election Integrity**

Al Schmidt President and CEO, Committee of Seventy

David Becker Executive Director, Center for Election Innovation & Research

Marian Schneider Senior Voting Rights Policy Counsel, ACLU of PA

**Diana Robinson** Civic Engagement Director, Make the Road PA

Morning Keynote Mary Gay Scanlon U.S. House of Representative (D-PA 5th District)

#### Watching the Watchers: Surveillance Capitalism

**Tess Wilkinson-Ryan** Professor of Law and Psychology, University of Pennsylvania Carey Law School

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

Anupam Chander Scott K. Ginsburg Professor of Law and Technology, Georgetown University Law Center

#### Free Speech and Social Media

**Amanda Shanor** Assistant Professor of Legal Studies & Business Ethics, The Wharton School, University of Pennsylvania

Ben Wizner Director, ACLU Speech, Privacy, and Technology Project

**Rachel Levinson-Waldman** Deputy Director, Liberty and National Security, Brennan Center for Justice

**Dawn Nunziato** William Wallace Kirkpatrick Research Professor, George Washington University Law School

# Privacy's Intersectionality: Reproductive Autonomy and the LGBTQIA+ Community

Scott Skinner-Thompson Associate Professor of Law, University of Colorado Law School

**Rebecca Levin Nayak** Partner, Jerner Law Group, P.C.

Andrew Hall JD Candidate '24, Rutgers Law School

# Internet & Privacy Law | Events



Wayne Logan, Kiel Brennan-Marquez, Jumana Musa



#### Abdul El-Sayed, MD

Harry A. and Margaret D. Towsley Foundation Policymaker in Residence, Gerald R. Ford School of Public Policy, University of Michigan

#### J. Bart DeLone

Chief Deputy Attorney General, Pennsylvania Office of Attorney General

#### **Dorit Reiss**

Professor of Law and the James Edgar Hervey '50 Chair of Litigation, University of California Hastings College of the Law

#### **Emily Largent**

Emanuel & Robert Hart Assistant Professor of Medical Ethics and Health Policy, University of Pennsylvania

#### Injury and Data: Who Has Standing in Data Litigation?

#### Jordan Fischer

Assistant Teaching Professor of Law and Director, Center for Law and Transformational Technology, Drexel University Thomas R. Kline School of Law

#### **Megan Iorio**

Senior Counsel and Amicus Director, EPIC

Aaron Lawson Partner, Edelson PC



Theodore Ruger, Sheldon Whitehouse

#### Fourth Amendment in the Digital Age

#### Jumana Musa

Director, Fourth Amendment Center, National Association of Criminal Defense Lawyers (NACDL)

#### **Kiel Brennan-Marquez**

Associate Professor & William T. Golden Scholar and Director, Center on Community Safety, Policing, and Inequality, University of Connecticut School of Law

#### Wayne Logan

Steven M. Goldstein Professor, Florida State University College of Law

#### **Afternoon Keynote**

Sheldon Whitehouse U.S. Senator (D-RI)

#### Host

#### **Theodore Ruger**

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

# Private "Censorship": Social Media and Universities

# April 14, 2022

Technically, only the government can censor, but social media and universities are increasingly deplatforming certain communications to avoid being criticized or even ostracized. Speakers debated the growing threat of private "censorship" on the free flow of ideas and presented their views on whether and how the law should step in when private censorship goes beyond certain bounds. The event was co-sponsored by the Penn Carey Law Chapter of the Federalist Society.



Christopher Yoo and Adam Candeub

#### Adam Candeub L'95

Professor of Law and Director of the Intellectual Property, Information & Communications Law Program, Michigan State University College of Law

#### **Christopher Yoo**

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

# Eighth Computer Science and the Law Roundtable

## May 17-18, 2022

To promote interdisciplinary work bridging law and engineering, CTIC held its eighth roundtable that brought together leading scholars pursuing research at the intersection of law and computer science. The roundtable will continue to advance such interdisciplinary work and provide an institutional home for future scholars in both fields.



Christopher Yoo



Konstantinos Stylianou

# Tutorial on the Regulatory Structures Governing Software and Artificial Intelligence

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

# A Proposal for Notice and Choice Requirements of a New Consumer Privacy Law

**Scott Jordan** Professor, Samueli School of Engineering, University of California, Irvine

# The Internet as a Dynamic System: How CS and Law Think About Dynamics

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

#### Moderator

#### **Christopher Yoo**

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

#### Can the Government Compel Decryption? Don't Trust — Verify

Aloni Cohen Assistant Professor, University of Chicago



Alex Mueller



Silvia Elaluf Calderwood

#### Using Zero-Knowledge to Reconcile Law Enforcement Secrecy and Fair Trial Rights in Criminal Cases

**Ran Canetti** 

Professor and Director of the Center for Reliable Information System and Cyber Security, Boston University

#### **Rebecca Wexler**

Assistant Professor of Law and Faculty Co-Director of the Berkeley Center for Law & Technology, UC Berkeley School of Law

#### Moderator

#### **Bryan Choi**

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

#### **Algorithmic Audits**

**Colleen Chien** Professor of Law, Santa Clara University School of Law

#### New IP: The Uncertain Future of China's "Future Internet"

#### Alexander Mueller

Research Fellow, Center for Technology, Innovation and Competition (CTIC), University of Pennsylvania Carey Law School

#### Moderator

#### Justin (Gus) Hurwitz

Professor of Law and Menard Director of the Nebraska Governance and Technology Center (NGTC), University of Nebraska



Gerald Adams



Bryan Choi

## Internet & Privacy Law | Events



David Clark and roundtable attendees



Giovanna Massarotto

#### Friction-By-Design Regulation as 21st Century TPM

#### **Brett Frischmann**

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

#### **The Quantum Internet**

#### **Christopher Yoo**

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

#### Moderator

**David Thaw** Assistant Research Professor, School of Computing and Information, University of Pittsburgh

#### **Smart Contracts**

#### William Lehr

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

# AI's Zero-day: The Rise of Adversarial Machine Learning, a Right to Hack Back, and the Future of Cybersecurity

**Gerald Adams** JD Candidate '22, University of Pennsylvania Carey Law School

#### Moderator

#### Konstantinos Stylianou

Associate Professor, University of Leeds School of Law



Gus Hurwitz



#### **1 World Connected**

The 1 World Connected initiative was launched in 2016 to provide an empirical foundation for efforts to close the global digital divide. Only two-thirds of the world's roughly eight billion people are currently able to enjoy the benefits of Internet connectivity. The insights generated by 1 World Connected's research projects provide key decisionmakers, such as government departments and international organizations, with a data-driven foundation for determining what really works to bring the unconnected online.

#### **Increasing Connectivity**

1 World Connected's initial work focused on creating databases of the technologies and business models used to establish connectivity. Other studies have explored the use of municipal fiber and fixed wireless to connect people in smaller cities and rural areas in the United States, information that is critical for allocating the \$65 billion investment in broadband infrastructure enabled by the 2021 Infrastructure Investment and Jobs Act.

During this academic year, CTIC collaborated with the UN Broadband Commission for Sustainable Development's Working Group on Smartphone Access on an initiative to address this principal barrier to Internet adoption. The Working Group, cochaired by Vodafone, ITU, and the United Nations Office of the High Representative for the Least Developed, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS), includes experts from diverse global organizations and government departments. The group appointed Prof. Christopher Yoo as the lead expert. The report, containing detailed case studies and recommendations on addressing device access barriers, will be released in conjunction with the convening of the UN General Assembly in September 2022.

1 World Connected also examined community networks as models to address connectivity gaps in underserved communities and found them to be a promising potential solution to closing the digital divide. Knowledge on current initiatives has been fragmented while systematic analysis of existing models has been limited. As a result, CTIC sought to bridge the information gap and identify the likely determinants of a sustainable community network. The team examined 21 networks across different countries and continents for insights into their structure and components and created a database of case studies. The team made findings as to persons involved (users, managers, trainers), technology options, organizational approaches, and environment-related issues. The findings, along with identified success factors and recommendations, are contained in the 2022 CTIC report, Community networks as models to address connectivity gaps in underserved communities. Written by Prof. Yoo and CTIC fellows Leon Gwaka and Müge Haseki, the report will be useful to practitioners implementing community networks.

#### Education

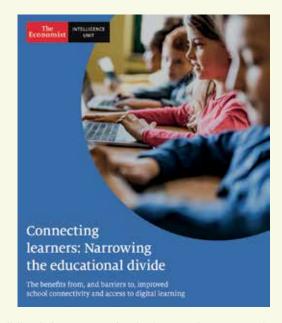
Education is another major focus for 1 World Connected. Prof. Yoo was named an external expert and advisor for GIGA, a UNICEFand International Telecommunication Union (ITU)-backed project centered on global school connectivity that aims to connect every school to the Internet by 2030. He served as an expert interviewee in an Economist Intelligence Unit (EIU) report commissioned by Ericsson, an international communications technology company, in partnership with UNICEF, entitled Connecting learners: Narrowing the educational divide. Published in 2021, the report focuses on the benefits from and barriers to improved school connectivity and access to digital learning and revealed that providing connectivity to schools not only empowers children to access to world-class digital content, but also enables local entrepreneurship, online banking access, improved information channels during emergencies, and opportunities for employment through digital platforms and the gig economy.

#### Gender

1 World Connected's work has expanded to include the social benefits created by extending connectivity. For example, CTIC's most recently completed research project is a study on the impact of mobile Internet uptake on women in Bangladesh and Ghana in partnership with the GSMA Foundation and GSMA's Connected Women program. Prof. Yoo and CTIC fellows Leon Gwaka, Müge Haseki, and Himani Mehta developed a novel multi-dimensional index to examine the link between mobile Internet use and well-being among men and women. Results identified certain mobile Internet use patterns and effects on well-being that were not previously reported. The study also examined the differences between men and women regarding Internet use, the positive and negative impacts of mobile connectivity, the mechanisms through which mobile Internet connectivity delivers this impact, and the role social norms play in the process. The CTIC team's research and findings served as the foundation of the GSMA/University of Pennsylvania report, Mobile Internet Use, Well-being and Gender: Understanding the Links, published in 2022. Before the report's publication, the team presented its findings at the TPRC 50th Annual Research Conference on Communications, Information and Internet Policy in September 2021.

#### **The Project Continues**

The 1 World Connected team will continue to conduct studies, write publications, make recommendations, and participate in prestigious forums such as the TPRC Research Conference on Communications, Information and Internet Policy and the Global Digital Health Forum. CTIC will also continue its collaborations with numerous international organizations to promote Internet accessibility and adoption. These include GSMA Mobile for Development Foundation, Broadband Commission for Sustainable Development, ITU's Partner2Connect Digital Coalition, and EQUALS: The Global Partnership for Gender Equality in the Digital Age.



"[J]ust building infrastructure for the Internet is not enough. Telecom providers and regulators like to focus on building things, but they also need to focus on helping users make better use of their connectivity through programs that teach digital literacy and security."

-Christopher Yoo





Emerging Technologies

# Current and Emerging Issues in Technology, Intellectual Property, and Entertainment & Media Law

# September 29, 2021

Penn Carey Law faculty examined cases on the U.S. Supreme Court's docket for the October 2021 term, newly enacted and pending legislation, and other major changes to the legal landscape.



Jennifer Rothman, Christopher Yoo Herbert Hovenkamp, Gideon Parchomovsky

Herbert Hovenkamp James G. Dinan University Professor, University of Pennsylvania

#### **Gideon Parchomovsky**

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

#### Jennifer Rothman

Nicholas F. Gallicchio Professor of Law and Professor of Communication, University of Pennsylvania

#### Moderator

#### **Christopher Yoo**

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



# Fourth Junior Faculty Forum for Law and STEM

# October 15-16, 2021

Launched in 2017, the Junior Faculty Forum for Law and STEM spotlights and promotes interdisciplinary research conducted by young scholars on how STEM developments inform the law and vice versa. The event is a joint project of CTIC, Northwestern Pritzker School of Law, and Stanford Law School.



Karen Tani



Theodore Ruger

# Health AI for Good Rather Than Evil? The Need for a New Regulatory Framework for AI-Based Medical Devices

Sara Gerke Assistant Professor of Law, Penn State Dickinson Law

#### Commentators

**Brian Litt** Professor of Neurology and Professor of Bioengineering, Perelman School of Medicine, University of Pennsylvania

#### **Theodore Ruger**

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

#### **Brains Without Money: Poverty as Disabling**

**Emily Murphy** Associate Professor of Law, University of California Hastings College of the Law

#### Commentators

Martha Farah Walter H. Annenberg Professor in Natural Sciences, Department of Psychology, University of Pennsylvania

Jasmine Harris Professor of Law, University of Pennsylvania Carey Law School

#### Karen Tani

Seaman Family University Professor, University of Pennsylvania



**Dorothy Roberts** 

Peter Liu

#### **Monitoring Corporate Cybersecurity & Data Privacy Risk**

**Tabrez Ebrahim** Associate Professor, California Western School of Law

#### Commentators

**Lisa Fairfax** Presidential Professor, University of Pennsylvania Carey Law School

Josephine Wolff Associate Professor, The Fletcher School, Tufts University

#### **The End of Accidents**

Matthew Wansley Assistant Professor of Law, Benjamin N. Cardozo School of Law

#### Commentators

**Tom Baker** William Maul Measey Professor of Law and Professor of Business Economics and Public Policy, University of Pennsylvania

#### **Rahul Mangharam**

Associate Professor, School of Engineering and Applied Science, University of Pennsylvania





#### **The PrEP Penalty**

**Doron Dorfman** Associate Professor of Law, Syracuse University College of Law

#### Commentators

#### Peter Liu

Assistant Professor of Clinical Medicine, Perelman School of Medicine, University of Pennsylvania

#### **Dorothy Roberts**

George A. Weiss University Professor of Law and Sociology and the Raymond Pace and Sadie Tanner Mossell Alexander Professor of Civil Rights, University of Pennsylvania Carey Law School

#### **The Accidental Innovation Policymakers**

**Rachel Sachs** Treiman Professor of Law, Washington University in St. Louis School of Law

#### Commentators

#### Rebecca Eisenberg

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

#### **Bhaven Sampat**

Professor, Mailman School of Public Health, Columbia University



Martha Farah

# Emerging Technologies | Events



Ngozi Okidegbe



David Schwartz

#### **Pharmaceutical Patents and Adversarial Examination**

**Dmitry Karshtedt** Associate Professor of Law, The George Washington University Law School

Commentators Arti Rai Elvin R. Latty Professor of Law, Duke University School of Law

**David Schwartz** Frederic P. Vose Professor of Law and Associate Dean of Research and Intellectual Life, Northwestern University Pritzker School of Law

#### **Discredited Data**

Ngozi Okidegbe Assistant Professor of Law, Benjamin N. Cardozo School of Law

Commentators Richard Berk Emeritus Professor of Criminology and Statistics, University of Pennsylvania

Sandra Mayson Professor of Law, University of Pennsylvania Carey Law School

#### Humans in the Loop

**Rebecca Crootof** Assistant Professor of Law, University of Richmond School of Law

#### Commentators

**Kristian Hammond** Professor of Computer Science, McCormick School of Engineering, Northwestern University

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

**Gitanjali Swamy** Managing Partner, IoTask



Christopher Yoo



Rachel Sachs, Mark Lemley

#### **Privatization and Law Enforcement Privilege**

**Rebecca Wexler** Assistant Professor of Law, UC Berkeley School of Law

Commentators Jane Bambauer Professor Law, James E. Rogers College of Law, University of Arizona

#### **Steven Bellovin**

Percy K. and Vida L. W. Hudson Professor of Computer Science, The Fu Foundation School of Engineering and Applied Science, Columbia University

#### Machine Learning as Natural Monopoly

**Tejas Narechania** Robert and Nanci Corson Assistant Professor of Law, UC Berkeley School of Law

#### Commentators

Amit Gandhi Professor of Economics, University of Pennsylvania

Mark Lemley William H. Neukom Professor of Law, Stanford Law School

# *Journal of Law & Innovation* Symposium: Innovation and Criminal Justice

# January 28, 2022

Technological advancement continues to impact every aspect of the criminal justice system, from crowdsourced surveillance to the use of algorithms in sentencing decisions. These innovations have the power to advance justice or exacerbate existing legal and societal flaws. Penn Carey Law's *Journal of Law & Innovation* (JLI) explored these innovations and their impact on the criminal justice system at its fifth annual symposium.



#### **Opening Remarks**

Gerald Adams L'22 Editor-in-Chief, Journal of Law & Innovation

#### **David Abrams**

Professor of Law, Business Economics, and Public Policy and JLI Faculty Advisor, University of Pennsylvania

#### **Christopher Yoo**

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

Gerald Adams



David Abrams



Christopher Yoo



Carla Reyes, Hannah Bloch-Webe

#### **Understanding Criminal Justice Innovation**

#### Meghan Ryan

Associate Dean for Research, Altshuler Distinguished Teaching Professor, and Professor of Law, Dedman School of Law, Southern Methodist University

#### Discussant

#### **Aurélie Ouss**

Janice and Julian Bers Assistant Professor, School of Arts and Sciences, University of Pennsylvania

# Emerging Technology's Language Wars: Artificial Intelligence in Criminal Justice

**Carla Reyes** Assistant Professor of Law, Southern Methodist University Dedman School of Law

#### Discussant

Hannah Bloch-Wehba Associate Professor of Law, Texas A&M University School of Law

#### Gunshot Detection Systems and Reasonable Suspicion: Innovating Policing or Propagating Bias?

#### Maneka Sinha

Assistant Professor of Law, University of Maryland Carey School of Law

#### Discussant

**Rebecca Wexler** Assistant Professor of Law and Faculty Co-Director of the Berkeley Center for Law & Technology, UC Berkeley School of Law

#### **Algorithmic Grey Holes**

Alicia Solow-Niederman Climenko Fellow and Lecturer on Law, Harvard Law School

#### Discussant

**Orin Kerr** William G. Simon Professor of Law, UC Berkeley School of Law



Meghan Ryan, Aurélie Ouss

# The Democratic Regulation of Artificial Intelligence

# April 1, 2022

Institutional and ontological impediments constrain the democratic operation of AI in public life. In this program, Aziz Huq discussed his paper, *The Democratic Regulation of AI*, with commentary by two experts on how democratic regulation might proceed, the challenges rooted in political economy, and the resources that exist in current law and technology. Co-sponsors included the Penn Intellectual Property Group (PIPG) and Penn Carey Law's Internet, Tech and Society Collective.



Gitanjali Swamy, Rangita de Silva de Alwis Aziz Huq, Steve Crown

## Panelists

**Aziz Huq** Frank and Bernice J. Greenberg Professor of Law, University of Chicago Law School

Steve Crown Vice President and Deputy General Counsel, Microsoft

**Gitanjali Swamy** Managing Partner, IoTask

Moderator Rangita de Silva de Alwis Senior Adjunct Professor of Global Leadership, University of Pennsylvania Carey Law School



Health Care & Life Sciences

# Book Talk with Lewis Grossman: Choose Your Medicine: Freedom of Therapeutic Choice in America

# November 15, 2021

Author Lewis Grossman discussed how persistent but evolving notions of a right to therapeutic choice have affected American policy and law. The event was co-sponsored by the Department of Medical Ethics and Health Policy of the University of Pennsylvania's Perelman School of Medicine.



Holly Fernandez Lynch, Lewis Grossman

#### Lewis Grossman

Professor of Law, Washington College of Law; Affiliate Professor of History, American University

#### Moderator

#### Holly Fernandez Lynch

John Russell Dickson, MD Presidential Assistant Professor of Medical Ethics, Department of Medical Ethics and Health Policy, Perelman School of Medicine, University of Pennsylvania; Assistant Professor of Law, University of Pennsylvania Carey Law School

# Health Law and Anti-Racism: Reckoning and Response

## March 30, 2022

Distinguished experts in law, medicine, public health, and medical ethics gathered to discuss the racial dimensions of health law and policing, industry and the environment, health care and research, anti-racist teaching and practice, and other topics. The event introduced a special issue of the *Journal of Law, Medicine & Ethics* featuring articles written by symposium participants. Along with CTIC, University of Pennsylvania Perelman School of Medicine's Department of Medical Ethics & Health Policy, University of Pennsylvania Carey Law School, American Society for Law, Medicine & Ethics (ASLME), and University of California Irvine's Center for Biotechnology and Global Health Policy (UCI) co-sponsored the event.



Holly Fernandez Lynch



Michele Bratcher Goodwin

#### **Opening Remarks**

#### Holly Fernandez Lynch

John Russell Dickson, MD Presidential Assistant Professor of Medical Ethics, Perelman School of Medicine, University of Pennsylvania; Assistant Professor of Law, University of Pennsylvania Carey Law School

#### **Edward Hutchinson**

Executive Director, American Society of Law, Medicine & Ethics; Editor, *Journal of Law, Medicine & Ethics* 

#### **Theodore Ruger**

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

#### **Opening Address**

#### Michele Bratcher Goodwin

Provost's Distinguished Visiting Faculty Fellow, University of Pennsylvania; Chancellor's Professor of Law and Founding Director of the Center for Biotechnology and Global Health Policy, University of California, Irvine School of Law; and Senior Lecturer, Harvard Medical School

#### **Opening Commentary**

#### **Courtnee Melton-Fant**

Assistant Professor, Division of Health Systems Management and Policy, School of Public Health, The University of Memphis

#### **Health Law and Policing**

#### **Kelly Dineen**

Associate Professor of Law, Creighton University School of Law; Professor of Medical Humanities, Creighton University School of Medicine

#### Thalia González

Professor of Law and Politics, Occidental College; Senior Scholar, Georgetown University Law Center

#### **Elizabeth Pendo**

Joseph J. Simeone Professor of Law, Saint Louis University School of Law

#### Rafik Wahbi

Graduate Student Instructor, Center for Community Engagement, and Fellow, Prison Education Program, University of California, Los Angeles

#### Moderator

#### **Kevin Amhaad Jenkins**

Vice-Provost Postdoctoral Fellow, School of Social Policy and Practice, University of Pennsylvania; Core Investigator/Faculty, Center for Health Equity Research and Promotion (CHERP), Corporal Michael J. Crescenz Department of Veterans Affairs Medical Center

#### **Industry and the Environment**

#### **Gabrielle Kolencik**

JD Candidate, Duquesne University School of Law

#### Shiriki Kumanyika

Research Professor, Drexel University Dornsife School of Public Health; Emeritus Professor of Epidemiology, University of Pennsylvania; Founding Chair, Council on Black Health

#### **Abbey Lowe**

Assistant Professor, College of Allied Health Professions, University of Nebraska Medical Center

#### Amirala Pasha

Assistant Professor of Medicine, Mayo Clinic College of Medicine

#### Moderator

#### **Regina Austin**

William A. Schnader Professor of Law, Emeritus, University of Pennsylvania Carey Law School



Christopher Yoo



Regina Austin, Abbey Lowe, Shiriki Kumanyika, Amirala Pasha, Gabrielle Kolencik



Jessica Simpson



Kevin Amhaad Jenkins, Elizabeth Pendo, Kelly Dineen, Thalia González, Rafik Wahbi



Steven Joffe



Theodore Ruger

#### **Health Care and Research**

#### **Kristin Kostick-Quenet**

Assistant Professor, Center for Medical Ethics and Health Policy, Baylor College of Medicine

David Peloquin Partner, Ropes & Gray LLP

#### Moderator

Jasmine Harris Professor of Law, University of Pennsylvania Carey Law School

#### **Anti-Racist Teaching and Practice**

#### Medha Makhlouf

Assistant Professor and Director, Medical-Legal Partnership Clinic, Penn State Dickinson Law

#### L. Kate Mitchell

Clinical Professor of Law and Director, Health Justice Project, Loyola University Chicago School of Law

Jessica Simpson Student, Stritch School of Medicine, Loyola University Chicago

#### Moderator

Seema Mohapatra Murray Visiting Professor of Law, SMU Dedman School of Law

#### **Concluding Remarks**

#### Michele Bratcher Goodwin

Provost's Distinguished Visiting Faculty Fellow, University of Pennsylvania; Chancellor's Professor of Law and Founding Director, Center for Biotechnology and Global Health Policy, University of California, Irvine School of Law; and Senior Lecturer, Harvard Medical School

#### Holly Fernandez Lynch

John Russell Dickson, MD Presidential Assistant Professor of Medical Ethics, Perelman School of Medicine, University of Pennsylvania; Assistant Professor of Law, University of Pennsylvania Carey Law School

#### **Steven Joffe**

Art and Ilene Penn Professor of Medical Ethics and Health Policy and Interim Chair of the Department of Medical Ethics & Health Policy, Perelman School of Medicine, University of Pennsylvania

Focus on Students

# Focus on Students

Preparing Penn Carey Law students academically and professionally for careers where law and technology converge is a core CTIC mission. The Center and its faculty educate future technology law practitioners, scholars, and policymakers through innovative academic programs and real-world learning, fellowships and internships, student group collaborations, and career guidance and events.



Fall 2021 Detkin Clinic students with Cynthia Dahl



Journal of Law and Innovation members with Christopher Yoo

# **Experiential Learning**

#### Detkin Intellectual Property and Technology Legal Clinic

The Detkin Clinic is unique among IP clinics nationwide. It assumes a sizeable percentage of work from Penn Center for Innovation (PCI), University of Pennsylvania's technology transfer office. Law students support PCI's efforts to analyze legal and business options and choose the best path to commercialize early-stage discoveries. Students also represent entrepreneurial ventures, investors, nonprofits, and individual artists and creators in a broad-based transactional practice that increasingly presents evolving issues of privacy, data protection and ownership, and authorship of product created through artificial intelligence. Through the clinic, students gain skills that help them become agile practitioners in today's dynamic tech sector.

#### Journal of Law & Innovation

Created by CTIC and faculty run, the *Journal of Law & Innovation* is a year-long course that involves students in the publication of an annual scholarly volume and production of a symposium. Working closely with faculty, student members explored this year's topic, "Innovation and Criminal Justice." During the fall semester, students read and critically analyzed prominent legal scholarship with guidance from faculty. During the spring semester they helped organize and manage the event, collaborated with authors to substantively edit articles, and brought the volume to print.

#### 2021-2022 Board of Officers

Editor-in-Chief Gerald Adams L'22

Publication & Research Editor Robert McMullen L'22

Symposium Management Tiffany Keung L'22 **Symposium Operations** Cordelia Mikita L'22

**External Partnerships** Apratim Vidyarthi L'22

**Community Relations** Danuta Egle L'22

**Senior Board** Alexandra Delaney L'22

# Penn Entrepreneurial Engineers and Penn Carey Law (PEEPL)

PEEPL is a student-run legal counseling simulation supervised by Prof. Cynthia Dahl. PEEPL pairs senior law students with teams of engineering students enrolled in the engineering entrepreneurship class at Penn's School of Engineering and Applied Science (SEAS). After teams pitch a mock business to a panel of venture capitalists, law students counsel on structure and entity selection, agreements and operational documents, intellectual property, and other transaction-related issues.

#### **Summer Public Interest Fellowships**

The CTIC Summer Public Interest Fellowship program supports 1L and 2L students who obtain summer positions with public interest or government organizations in technology policy, intellectual property, cyberlaw, privacy, and other areas. The fellowships allow students to obtain legal work experience while making important contributions to the missions of nonprofits and government agencies. There were three recipients for summer 2022 fellowships.

Katie Cohen (L'24) worked at the Office of the General Counsel at the University of Pennsylvania and Penn Medicine, where she worked on a HIPAA violation case and completed assignments for the post-*Roe* contingency planning task force at Penn Medicine. Katie said that her "summer experience illuminated new legal questions to explore during the next two years of law school" and "confirmed her interest in pursuing a career as a health care regulatory attorney."

Shashank Sirivolu (L'24) interned at the Electronic Frontier Foundation (EFF). He worked on First and Fourth Amendment litigation, drafted and submitted a comment to UK competition regulators, coordinated amicus efforts, and observed a team that was litigating a copyright case in the Ninth Circuit. "I feel fortunate to have been a small part of the organization's efforts to ensure that technology supports freedom, justice, and innovation for all," he said.

While interning at the Pennsylvania Office of Attorney General, Yifan (Molly) Zhang (L'23) engaged in antitrust cases in hospital and other areas and conducted legal research and wrote legal memoranda, which she said "enhanced [her] interest in antitrust overall."



Katie Cohen



Shashank Sirivolu



Yifan (Molly) Zhang



Jinlin Yee

## **Innovative Degree Programs**

In partnership with the University of Pennsylvania's School of Engineering and Applied Science (SEAS), the law school offers joint-degree programs in law and technology: JD/Master of Computing and Information Technology (MCIT), which requires no engineering or computer science background; JD/Master of Science in Engineering (MSE) for students with strong undergraduate backgrounds in engineering or computer science; and JD/PhD degrees.

Each year, through its competitive Interdisciplinary Scholarship Program, CTIC awards \$40,000 to up to three students to help offset tuition expenses for the additional year of study at SEAS. Penn Carey Law student Jinlin Ye (L/MBA' 22), the most recent recipient of the CTIC Law and Tech Interdisciplinary Scholarship, is pursuing an MSE in Data Science to better understand the application of data in the intersection of law and finance.

Additionally, the law school offers an LLM degree with an intellectual property and technology law concentration and allows Penn professional, graduate, and upper-class undergraduate students to pursue a Certificate in Law or Master in Law (ML) degree to advance their credentials with a legal perspective within their law and technology discipline.

The latest development in the ML program occurred in March 2022 when SEAS approved the law school's ML class, *Technology Law & Ethics*, for its undergraduate Computer and Information Science (CIS), Computer Engineering (CMPE), and Networked and Social Systems (NETS) students to obtain the program's requisite ethics credit. A milestone achievement, the course resulted from a SEAS/Penn Carey Law collaboration and will raise the profile of the law school's ML program within SEAS and across the university.

# **Career Direction**

Preparing students for a successful career in law and technology is an enduring core mission of CTIC. The Center began the 2021-2022 academic year with its annual *Opportunities in Law and Technology* event to orient students to all the law and technology offerings at Penn Carey Law and elsewhere at the university. In addition, CTIC held its *Career Speaker Series* throughout the year at which law school alumni and other practicing attorneys shared their professional experiences and insights. CTIC is grateful for our guests' participation.

Susan Spaeth L'89

Chief Legal Officer and former Managing Partner, Kilpatrick Townsend

**Teddi Josephson JD/MCIT'19** Associate, Fenwick and West

**Pratik Agarwal L'18** Associate, Covington & Burling

Health & FDA Law Career Panel with Hogan Lovells:

Michael Druckman L'90 Partner

**George O'Brien G'08** Partner

**Blake Wilson L'12** Partner

**Christine Zimmerman L'19** Associate







Susan Spaeth

Teddi Josephson

Pratik Agarwal





Michael Druckman

George O'Brien



Blake Wilson



Christine Zimmerman







internet, tech & society collaborative penn carey law

# Student Engagement

#### Penn Intellectual Property Group (PIPG)

#### The student hub for intellectual property

Established in 2001, PIPG focuses on creating and supporting interest in intellectual property and technology law at Penn Carey Law, throughout the university, and in the broader Philadelphia community. PIPG continues to expand its efforts, which include planning and hosting academic symposia, career panels, and social events. CTIC enjoys a collaborative relationship with PIPG; both organizations sponsored the December 2021 event, *Is Copyright Phanatical*?

#### Penn's Public Interest Technology University Network (PIT-UN) and PIT@Penn

#### Technology in service of the public good

In 2020, University of Pennsylvania joined the Public Interest Technology University Network (PIT-UN), a national group of colleges and universities committed to building the nascent field of public interest technology and educating a new generation of civically engaged technologists. Prof. Christopher Yoo led the Penn initiative to join the network, which is now headed by the Annenberg School for Communication's Prof. Michael Delli Carpini, who also serves as the Faculty Director of the Stavros Niarchos Foundation Paideia Program (PNF Paideia). Both cochaired the steering committee of Penn faculty and students to identify ways to integrate business, law, ethics, social justice, and technology into the classroom.

Prof. Yoo also helped establish PIT@Penn, a student group that hosts events for undergraduates to learn more about STEM/ public interest careers. The group hosted two events in April 2022. At *Biology & Public Interest: A Fireside Chat*, Dr. Kayla Davis, AAAS Science & Technology Policy Fellow, and Dr. George Demiris, biobehavioral health sciences professor at Penn's Perelman School of Medicine and School of Nursing, spoke about the challenges they encounter in their civic tech work. At another April event, Kaitlyn Rentala C'22, author of *The Public Sector Pivot: How Gen Z Will Lead a Renaissance in Public Service*, discussed young people's role in the post-pandemic public sector and how to improve the public sector pipeline for college students.

#### Internet, Technology & Society Collective (ITSC)

#### A spotlight on the convergence of law and technology

ITSC is a group for students interested in legal issues related to technology and innovation, including digital privacy, platform liability, telecommunications law, and more. Through studentled discussions, panels with invited guest speakers, and career exploration events and resources, ITSC serves as a student-run hub for all things tech. In April 2022, CTIC co-sponsored ITSC's spring event, *The Democratic Regulation of Artificial Intelligence*.

# Penn Carey Law Antitrust Association (PCLAA)

A focus on antitrust/competition legal developments across the globe

PLAA provides a forum for students to research, analyze, and discuss antitrust-related matters through guest speakers, panels, and academic activities. It explores such topics as merger control, cartel and unilateral conduct investigations, and the interface between antitrust and other regulated areas. CTIC co-sponsored PLAA's annual seminar, *Competition Around the Globe and Beyond*, in October 2021 as well as its April 2022 event, *Antitrust Trends for M&A Practice*.

# Health Law and Policy Project (HeLPP)

### A group focused on health law and policy

HeLPP provides opportunities for students to gain practical experience in health law and policy. Members research and write memoranda on health law issues to support the work of the Pennsylvania Health Law Project and Medicare Rights Center. Through the Medical Legal Community Partnership, students work with Philadelphia Legal Assistance to provide legal aid to clients in a medical setting. HeLPP also organized a Know Your Rights Clinic at the Sayre Health Center to promote health and legal literacy within the local community. HeLPP was a cosponsor of *Privacy and Law in the Modern Age*, the American Constitution Society/CTIC symposium held in March 2022.

### Penn Carey Law STEM Club

#### A supporting network for former STEM students

The club provides a space for students who majored in science, technology, engineering, and math (STEM) and STEM-adjacent fields to adapt to the unique challenges in the law school and legal profession. This goals of this community of scientists are to foster connections among Penn Carey Law students who share similar academic backgrounds, help them prepare for a legal career that capitalizes on their technical abilities, and offer a social network of science-oriented law students.



# HeLPP





# Patent Law Clerkships

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

# The Lavi Ben Dor L'20

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

# Michael Gniwisch L'22

The Honorable Kent A. Jordan, U.S. Court of Appeals for the Third Circuit, 2023-24 Term

# **Robert Hampton L'18**

The Honorable Jimmie V. Reyna, U.S. Court of Appeals for the Federal Circuit, 2022-23 Term

#### Michael Hilyard L'22

The Honorable Kent A. Jordan, U.S. Court of Appeals for the Third Circuit, 2022-23 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 Tiffany P. Cunningham and the Honorable Kathleen M. O'Malley, U.S. Court of Appeals for the Federal Circuit, 2021-22 Term; The Honorable Edward M. Chen, U.S. District Court for the Northern District of California, 2022-23 Term

### Steven Mills L'19

The Honorable Yvonne G. Rogers, U.S. District Court Judge for the Northern District of California, 2021-22 Term

# **Robert McMullen L'22**

The Honorable Raymond C. Clevenger III, U.S. Court of Appeals for the Federal Circuit, 2022-2023 Term



# **CTIC** News





Jennifer Rothman





Emily Largent



Juan Camilo Castillo



Pinar Yildirim



Giovanna Massarotto



Alex Mueller

Sindhura K S



Jennifer Rothman is the newest member of CTIC's core faculty. Prof. Rothman first joined Penn Carey Law as Visiting Professor of Law during the 2020-2021 academic year, after which she joined the standing faculty member as the Nicholas F. Gallicchio Professor of Law. She is nationally recognized for her scholarship in the intellectual property and constitutional law fields and is a leading expert on the right of publicity. She is the author of the seminal book, *The Right of Publicity: Privacy Reimagined for a Public World*, and is the creator of the website, *Rothman's Roadmap to the Right of Publicity* (rightofpublicityroadmap.com). During the 2022-2023 academic year, Prof. Rothman will spearhead a new area of focus for CTIC, Entertainment and Media Law, developing student programming and planning symposia and other events.

Several University of Pennsylvania professors joined CTIC's affiliated faculty. Holly Fernandez Lynch (L'06, MBe'06) and Emily Largent (JD, PhD, RN'06) are professors at the Department of Medical Ethics & Health Policy at Penn's Perelman School of Medicine. Both have secondary appointments at Penn Carey Law.

Juan Camilo Castillo (PhD, MS, BS), Assistant Professor of Economics at Penn's School of Arts and Sciences, and Pinar Yildirim (PhD, MS, BS), Assistant Professor of Marketing at the Wharton School, have also joined CTIC as affiliated faculty members. Both will contribute to CTIC's continuing examination of the economics of digital services and related competition issues.

# Fellows & Visiting Scholars

Giovanna Massarotto's scholarship focuses on the intersection of law, economics, and computer science. In addition to pursuing her research projects, Massarotto administers CTIC's Economics of Digital Services (EODS) initiative. She is a graduate of Bocconi University (PhD) in Milan and Carlo Cattaneo University-LIUC (MS, BA) in Castellanza, Italy.

Alex Mueller, a 2021 graduate of Penn Carey Law, focuses his research on Internet standards development and governance. Over the last year, Mueller led a project studying a set of new Internet architectures and protocols that have been proposed as potential alternatives to the existing model. He teaches the law school's ML class, *Technology Law & Ethics*, to students from across Penn, particularly those from the School of Engineering and Applied Science (SEAS).

Sindhura K S joined CTIC as a research fellow and works on the 1 World Connected initiative. She is a graduate of the Indian Institute of Management Bangalore (MBA) and Ramaiah Institute of Technology (BEng). Visiting economist Volker Stocker came to CTIC to work with Prof. Christopher Yoo on interdisciplinary research covering next-generation mobile access networks and network neutrality. He heads a multidisciplinary research group at the Weizenbaum Institute for the Networked Society.

While at the University of Pennsylvania, visiting professor Heike Schweitzer, Chair for Private Law, Economic Law and Competition Law at Humboldt University of Berlin, participated in CTIC's April 25, 2022, event, *Do Digital Markets Need a New Antitrust Regime? Views from Europe and the U.S.* 

# **Faculty News Bytes**

The American Philosophical Association (APA) selected Anita Allen as the 2021 winner of the APA's Philip L. Quinn Prize, the greatest tribute the APA has to offer in recognition of service to philosophy and philosophers, broadly construed. Dominic McIver Lopes, chair of the APA board of officers, remarked that Allen "famously challenged us to reflect upon what we have to offer those we've excluded and hope to include, and she's championed inclusion at every opportunity."

Christopher Yoo participated in the Partner2Connect (P2C) Digital Development Roundtable at the ITU WTDC 2022 conference in June 2022 in Kigali, Rwanda. The conference's theme, "connecting 15160 the unconnected to achieve sustainable development," aligns with CTIC's 1 World Connected project and Yoo's longheld commitment to exploring and expanding digital inclusion of unserved and underserved global communities. He also served as the Lead Expert for the Broadband Commission on Sustainable Development's Working Group on Smartphone Access.

Peter Decherney (and Sosena Solomon, a lecturer in Penn's Stuart Weitzman School of Design) made a documentary about a Jewish community in Ethiopia waiting to emigrate to Israel entitled "Dreaming of Jerusalem." Decherney said, "I hope the film does what films do well: add emotion and a sense of everyday life to a political issue." The film is available on Discovery+.

Christopher Yoo was named Program Committee Co-Chair of the ACM Symposium on Computer Science and Law: Bridge the Divide Between Computer Science and Law, held in Washington, D.C., on November 1-2, 2022. The Association for Computing Machinery (ACM) is the world's largest educational and scientific computing society.

Kartik Hosanger founded Jumpcut (jumpcutmedia.com), a venture funded start-up using crowdsourcing and AI-powered creative tooling to identify creative individuals and help them develop their ideas into studio-ready production. According to Hosanger, "Stories were always born and shared in communities. Somewhere, along the way, we lost that. We want to bring creative communities back into the core of storytelling." Hosanger serves as CEO.





Volker Stocker

Heike Schweitzer





Anita Allen

**Christopher Yoo** 



Peter Decherney



Kartik Hosanger





Rakesh Vohra



Christopher Yoo became a member of the External Advisory Board of the Center for Quantum Networks (CQN), an organization whose mission is to lay foundations for a socially responsible quantum Internet that will spur new technology industries. As a board member, Yoo will advise on research direction, industry engagements, and strategic investments with the goal of ensuring that CQN fulfills its mission.

Rakesh Vohra was named co-editor of Theoretical Economics, an open-access journal in economic theory, beginning July 1, 2023. Theoretical Economics is a journal of The Econometric Society.

Christopher Yoo served as a Consultant to the joint American Law Institute (ALI)-European Law Institute (ELI) project on Principles for a Data Economy. The project identified and assessed existing and potential legal rules relevant to transactions that involve data as assets. The final draft was approved by the ELI in September 2021.

Penn Carey Law announced new chaired professorships for David Hoffman (William A. Schnader Professor of Law) and Jonathan Klick (Charles A. Heimbold, Jr. Professor of Law).

# Milestone Law School Course for Penn Engineering Students

In spring 2022, University of Pennsylvania's School of Engineering and Applied Science (SEAS) approved an interdisciplinary law school class, *Technology Law & Ethics*, to fulfill the ethics credit required of its Computer and Information Science (CIS), Computer Engineering (CMPE), and Networked and Social Systems Engineering (NETS) students. The innovative course, centered on real world legal and ethical dilemmas, arose from the recognition that technology students were ill prepared to identify and critically analyze ethical and legal issues that arise in today's technology workplaces, particularly in emerging tech areas. The SEAS/Penn Carey Law collaboration was steered by CTIC's Prof. Christopher Yoo. The course is currently taught by CTIC fellow Alex Mueller.

# **Advances in Research**

Penn Carey Law published a compilation of articles on some of the latest research being conducted by members of its faculty, including CTIC faculty members David Abrams (COVID and crime), Herbert Hovenkamp (Chicago School of antitrust analysis), David Hoffman (residential leases), Allison Hoffman (nursing home crisis), and Jonathan Klick (alcohol and crime around the ballpark).



Jonathan Klick



# 2022-2023 Calendar of Events

Go to www.pennCTIC.org for the latest information on events.

# SEPTEMBER 2022

September 9-10 – Second Annual Research Symposium on the Economics of Digital Services

# **OCTOBER 2022**

#### October 7-8 – Inaugural Trademark and Unfair Competition Scholarship Roundtable

with co-hosts Harvard Law School and New York University School of Law

October 11 – Current and Emerging Issues in Technology, Intellectual Property, and Entertainment & Media Law with co-sponsors Penn Intellectual Property Group (PIPG) and Entertainment & Sports Law Society (ESLS)

**October 12 – Career Speaker Series with Marc Paul L'94,** VP of Policy, Charter Communications

October 14 – Creative Control: IP in a World of Democratized Content Creation

a Penn Intellectual Property Group (PIPG) Symposium

# October 18 – FCC Commissioner Geoffrey Starks on the Future of Broadcast Television

with co-sponsors Penn Intellectual Property Group (PIPG) and Penn Carey Law's Internet, Tech, and Society Collective (ITSC) and Entertainment and Sports Law Society (ESLS)

## October 19 – Fireside Chat: Life of an Antitrust Litigator in Male-Dominant Spaces–Antitrust Regulation and Tech Law

with co-sponsors Penn Carey Law Antitrust Association (PCLAA), Internet, Tech, and Society Collective (ITSC), and Penn Law Women's Association (PLWA)

#### October 20 – Book Talk with Orly Lobel: *The Equality Machine: Harnessing Digital Technology for a Brighter, More Inclusive Future*

October 21-22 – Fifth Junior Faculty Forum on Law and STEM with co-sponsors Stanford Law School and Northwestern University Pritzker School of Law October 29 – Global Patent Law Conference with co-sponsor Waseda Law School, Tokyo

# **NOVEMBER 2022**

November 2 – Oral Arguments and Q&A Session with the U.S. Court of Appeals for the Federal Circuit

**November 9 – The Wide Reach of** *Dobbs***: Impacts Beyond Abortion** with co-sponsor Department of Medical Ethics and Health Policy at Penn's Perelman School of Medicine

**November 11 – Patent Eligibility: The Future of \$101** with co-sponsor Penn Intellectual Property Group (PIPG)

# **DECEMBER 2022**

**December 6 – Book Talk with William Novak:** *New Democracy: The Creation of the Modern American State* with co-sponsor Penn Program on Regulation (PPR)

# 2023

February 3 – Journal of Law and Innovation Symposium

March – Penn Intellectual Property Group (PIPG) Annual Symposium

April 7 – Penn Carey Law Antitrust Association (PCLAA) Annual Symposium

May 9-10 – Ninth Computer Science and the Law Roundtable

June – Sixth Annual Copyright Scholarship Roundtable

September 8-9 – Third Annual Research Symposium on the Economics of Digital Services



**CTIC** thanks its supporters:

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