Northwestern CENTER ON LAW, BUSINESS, AND ECONOMICS

Thirteenth Annual Conference on Innovation Economics

Participant Biographies

ALDEN F. ABBOTT is the General Counsel of the Federal Trade Commission (FTC). As the Commission's chief legal officer and adviser, the General Counsel represents the agency in court and provides legal counsel to the Commission and its bureaus and offices. Prior to rejoining the Commission in April 2018, Mr. Abbott served in legal management positions at the Heritage Foundation (2014-2018) and BlackBerry (2012-2014). He also held a variety of senior positions in the federal government prior to his retirement in 2012, including at the FTC (Deputy Director of the Office of International Affairs and Associate Director of the Bureau of Competition); the Department of Commerce (Acting General Counsel, Assistant General Counsel, and Chief Counsel of the National Telecommunications and Information Administration); and the Department of Justice (Senior Counsel in the Office of Legal Counsel and Special Assistant to the Assistant Attorney General for Antitrust). From 1991 to 2018, he was an Adjunct Professor at the George Mason University (Antonin Scalia) Law School, where he taught courses in such areas as antitrust, trade regulation, intellectual property, and international trade law. He has lectured and written on these topics in the United States and abroad, and has participated in training sessions for foreign competition agencies. Mr. Abbott was a Non-Governmental Advisor to the International Competition Network from 2012 to 2018, and a Visiting Fellow at All Souls College, Oxford University, in 2015. He speaks French, Spanish, and Italian.

ALEXEI ALEXANDROV leads economics on Wayfair's supply side – he's building a team that forecasts demand for millions of products and evaluates impacts of stockouts, faster shipping, and other events and programs, and incorporates those estimates and forecasts into Wayfair's supply chain operations. Prior to Wayfair, Alexei was a senior manager at Amazon, leading a team of economists and data scientists evaluating the effectiveness (or the lack thereof) of Amazon's advertising, ranging from TV to keyword bidding; Alexei also helped build a central economics team at AWS. Prior to his industry roles, Alexei was an assistant professor at the University of Rochester's business school and a senior economist at the US Consumer Financial Protection Bureau. Alexei received his Ph.D. in Managerial Economics and Strategy from Northwestern, and published academic papers in journals like Antitrust Law Journal, Journal of Economic Theory, Journal of Economics and Management Strategy, Management Science, and Marketing Science.

MARIO DANIELE AMORE I am Associate Professor at Bocconi University (Italy) and Research Affiliate at the Center for Economic Policy Research (CEPR). I received a PhD in Economics and Management from Copenhagen Business School. My research interests are in the fields of corporate governance, corporate finance and family business. Furthermore, I am interested in the interactions between strategy, finance and innovation, and in the behavioral aspects of corporate decision-making. My works have been published in leading journals such as Management Science, Journal of Financial Economics, Strategic Management Journal, Organization Science, and Journal of Financial and Quantitative Analysis. My research has been also featured in media outlets as Harvard Business Review, Harvard Law School Forum on Corporate Governance, and Sole 24 Ore among the others. I currently serve as Associate Editor of Management Science and Editorial Review Board Member of Strategic Management Journal.

PERE ARQUÉ-CASTELLS is an Assistant Professor in the Innovation Management and Strategy department at the University of Groningen. He is an economist, trained in the fields of applied econometrics and empirical industrial organization, doing empirical research on the economics of innovation. He obtained an MSc in Economics at the London School of Economics, a Ph.D. in Economics at the Universitat de Barcelona, held a postdoctoral position in the Universitat Autònoma de Barcelona and was a Research Associate in the Innovation Economics Project of the Searle Center on Law, Regulation and Economic Growth, at the *Northwestern University* Pritzker *School of Law*. His research topics include the market for technology, intangible asset valuation, IP and innovation, technology transfer and R&D policy evaluation. His research speaks to a broad audience including scholars, managers and policymakers.

MARIAGIOVANNA BACCARA joined the Olin Business School at Washington University in St. Louis faculty in 2010. Mariagiovanna's research investigates topics related to industrial organization, matching, organization theory, and social networks. Her papers have been published in journals including the *American Economic Review*, and the *Review of Economic Studies*. She holds editorial positions at *American Economic Journal: Microeconomics, Theoretical Economics, Journal of Economics and Management Strategy*, and the *Review of Economic Design*. She has a PhD from Princeton University and a B.A. in Economics from the University of Trieste.

JONATHAN BARNETT is director of the law school's Media, Entertainment and Technology Law Program. Barnett specializes in intellectual property, contracts, antitrust, and corporate law. Barnett has published in the *Harvard Law Review, Yale Law Journal, Journal of Legal Studies, Review of Law & Economics, Journal of Corporation Law* and other scholarly journals.

He joined USC Law in fall 2006 and was a visiting professor at New York University School of Law in fall 2010. Prior to academia, Barnett practiced corporate law as a senior associate at Cleary Gottlieb Steen & Hamilton in New York, specializing in

private equity and mergers and acquisitions transactions. He was also a visiting assistant professor at Fordham University School of Law in New York. A *magna cum laude* graduate of University of Pennsylvania, Barnett received a MPhil from Cambridge University and a JD from Yale Law School.

BO BIAN is an assistant professor of finance at Sauder Business School, University of British Columbia. She holds a Ph.D. in finance from London Business School. She also holds an MRes in Finance from London Business School, an MSc in Finance from UBC Sauder School of Business, and a BA in Economics from Shanghai Jiao Tong University. Her research focuses on empirical corporate finance. She is interested in topics related to productivity, innovation, bankruptcy and the interaction of regulatory and political economy factors with financing and investment. Her work has been presented widely in conferences and seminars.

TIANYUAN CAI holds a Bachelor of Arts in Economics from Pomona College, CA. He currently works as a machine learning engineer at Adobe in Boston. In the past, he has worked as an economic consultant with a focus on user welfare, privacy, and various antitrust issues in the digital economy. His research interests include social computing, innovation economics, human-computer interaction, and machine learning.

MERCEDES CAMPI is a researcher at the National Scientific and Technical Research Council (CONICET) and at the Interdisciplinary Institute of Political Economy (IIEP), University of Buenos Aires, Argentina. She has a PhD in Economics from Sant'Anna School of Advanced Studies (Pisa, Italy), a Master of Historical Research of the University of San Andrés (Argentina), and a degree in Economics from the University of Buenos Aires. Previously, she was a research fellow at the Institute of Economics of Sant'Anna School of Advanced Studies, and at ECLAC - United Nations. She has been a consultant for international organizations such as PNUD, ECLAC, IADB, and OECD. Her work has been published in journals such as World Development, Research Policy, and Agricultural Economics. Her main research interests are related to innovation and intellectual property rights in agriculture, technical change, industrial dynamics, international trade, and economic development.

JIN CAO is a research economist at Norges Bank, the Central Bank of Norway, a research fellow at CESifo, Munich, Germany, and Adjunct Professor at the University of Oslo. His research focuses on banking and finance, monetary economics, as well as economics and institutions. He is the author of Banking Regulation and the Financial Crisis (Routledge, 2012) and two textbooks, Money: Theory and Practice (with coauthor Gerhard Illing, Springer, 2019) and The Economics of Banking (Routledge, forthcoming in 2021).

MARCO CECCAGNOLI Strategy & Innovation Professor and Area Coordinator, has been appointed to the Brady Family in Management Professorship. Marco joined Scheller College in 2005. Marco's research interest lies at the intersection of strategy and innovation. An important common theme in his research is to help understand the role of appropriability (strategies to appropriate the profits from innovation through patenting, licensing, etc.) in affecting incentives to invest in innovation and firm performance. His work has received international awards, such as the William W. Cooper Doctoral Dissertation Award in Management Science, the Best Doctoral Dissertation Award (runner-up) of the Academy of Management (TIM Division), and the best paper award for the Cooperative Strategy Interest Group, Strategic Management Society (SMS), among others. Marco has taught courses on innovation, technology strategy, and strategic management at all levels, including PhD and executive education. Marco has also made extraordinary contributions to his profession through extensive editorial/reviewing activity for top-tier management journals; by organizing leading conferences in the strategy field ("CCC" doctoral consortium, ACAC, and REER) and mentoring PhD and junior faculty at Georgia Tech.

AVIK CHAKRABARTI's research looks into theoretical as well as empirical questions that relate to the fields of industrial organization, international trade, finance, and investment. His current projects focus on multinational corporations, offshore outsourcing, standardization, divisionalization, and cross-border mergers. He has also taken a lead in laying out a blueprint for the foundation of co-creation thinking in economics - identified as the conception of Co-Creation Experience Economics. He earned his Bachelors and Masters in economics, ranking first in first class with record marks, from the Jadaypur University where he received the University Gold Medals for Undergraduate as well as Graduate Studies. He earned his Ph.D. from the University of Michigan (Ann Arbor) and his doctoral dissertation received the International Trade Research Award (ITRA) from the Export-Import (EXIM) Bank of India. Since then, he has supervised more than 35 Doctoral Dissertations, more than 30 MA Theses, and more than 100 Undergraduate Research Studies. His lectures at the University of Michigan (Ann Arbor) as well as the University of Wisconsin (Madison and Milwaukee) include Ph.D. courses on Microeconomics, Industrial Organization, and International Trade; MBA courses on Applied Microeconomics; BBA courses on Applied Microeconomics: Undergraduate Intermediate courses on Industrial Organization, and International Trade and Finance: Principles courses on Microeconomics and Macroeconomics; and Pre-college Introduction to Economics. He received an Outstanding Teaching Award from the University of Michigan (Ann Arbor). The European Economic Review, Economic Theory, Journal of International Economics, Economics Letters, Economic Inquiry, Journal of Economic Behavior and Organization, Journal of Mathematical Economics, Economica, Journal of Comparative Economics are among the journals that have published his research. His writings also consist of an entry in the Princeton Encyclopedia of the World Economy, published by the Princeton University Press and a chapter in India and the Global Economy, a volume that brought together invited presentations, at the Silver Jubilee celebrations of the Indian Council for Research on International Economic Relations, including the inaugural speech by the Prime Minister of India and the valedictory address by the President of India.

ANEESH DATAR is a fourth-year PhD student at Bocconi University where he is working with Mario Amore, Arnaldo Camuffo, and Andrea Fosfuri. Aneesh is primarily interested in innovation, corporate governance, and human capital. His dissertation investigates strategic communication of innovation outcomes by firms, patent litigation, and role of CEOs in firm policies. In his research, Aneesh uses Python algorithms to collect and process textual data and supplements it with financial data from US public firms. Prior to his doctoral studies, Aneesh obtained a Master of Science in International Management from Bocconi University and a Bachelor of Engineering in Information Technology from University of Mumbai. Outside academia, Aneesh has worked in an SME in the energy consulting sector and in another SME that develops home automation products.

CHARLES DE GRAZIA is currently an economist in the Office of the Chief Economist (Addx Corp) at the U.S. Patent and Trademark Office and will join École de Management Léonard de Vinci as an Assistant Professor of Strategy and Innovation in Fall 2020. His current research focuses on innovation economics, economics of intellectual property, pharmaceutical innovation, and the digital economy. Charles has published in both innovation and economics journals including Research Policy, Economics of Innovation and New Technology, and Industry and Innovation. Charles holds an M.Sc. and a Ph.D. in economics from the University of London and an M.A. in economics from Indiana University. Previously, Charles was an associate instructor in the Department of Economics at Indiana University from 2012 to 2014.

MAKAN DELRAHIM was confirmed on September 27, 2017, as Assistant Attorney General for the Antitrust Division. Mr. Delrahim previously served as Deputy Assistant to the President and Deputy White House Counsel. Mr. Delrahim's rich antitrust background covers the full range of industries, issues, and institutions touched upon by the work of the Antitrust Division. He is a former partner in the Los Angeles office of a national law firm. He served in the Antitrust Division from 2003 to 2005 as a Deputy Assistant Attorney General, overseeing the Appellate, Foreign Commerce, and Legal Policy sections. During that time, he played an integral role in building the Antitrust Division's engagement with its international counterparts and was involved in civil and criminal matters. He has served on the Attorney General's Task Force on Intellectual Property and as Chairman of the Merger Working Group of the International Mr. Delrahim was also a Commissioner on the Antitrust Competition Network. Modernization Commission from 2004 to 2007. Earlier in his career, Mr. Delrahim served as antitrust counsel, and later as the Staff Director and Chief Counsel of the U.S. Senate Judiciary Committee.

Horizontal Tabs

ALBERTO GALASSO is Professor of Strategic Management at the University of Toronto, where he holds the Rotman Chair in Life Sciences Commercialization. He is Research Associate at the National Bureau of Economic Research (NBER).

He serves as co-editor for the Journal of Economics and Management Strategy, as associate editor for the Journal of Industrial Economics and as member of the editorial board for the Strategic Management Journal.

His research agenda focuses on the determinants of innovative activity, the management of innovation and the functioning of markets for technology.

NEIL GANDAL is the "Henry Kaufman Professor in International Capital Markets" in the Berglas School of Economics at Tel Aviv University. He received his B.A. and B.S. degrees from Miami University (Ohio) in 1979, his M.S. degree from the University of Wisconsin in 1981, and his Ph.D. from the University of California-Berkeley in 1989.

Professor Gandal has published numerous empirical papers using econometrics in industrial organization, the economics of information technology, the economics of the software & Internet industries, and the economics of cybersecurity and cryptocurrencies. His papers have received more than 6000 citations at Google Scholar.

He is a research fellow at the Centre for Economic Policy Research (CEPR.) Professor Gandal was a managing editor at the International Journal of Industrial Organization (IJIO) from 2005-2012. In this capacity, he edited many empirical papers using a wide range of econometric techniques.

Following his editorship at the IJIO, he was named "Honorary Editor" of the journal. He is the only honorary editor in the history of the IJIO.

ANDREJ GILL holds the chair of Corporate Finance at Johannes Gutenberg-University Mainz. Andrej Gill received his PhD from Goethe University Frankfurt (2013). His research concentrates on issues in corporate and household finance such as the role of venture capital in financing decisions and optimal financial planning of individuals. His research was published in the Journal of Corporate Finance and Management Science among others.

KIRTI GUPTA is Vice President, Technology & Economic Strategy at Qualcomm Inc., where she serves as an in-house economist, specializing on Intellectual Property (IP) and competition policy and strategy. In this role, she is responsible for managing the substantive direction of the global IP policy and advocacy outreach efforts, and for conducting original research on issues related to IP and competition law and economics. She has been involved in various international antitrust and litigation cases. Kirti has also been responsible for developing economic models for determining Qualcomm's optimal IP strategy world-wide and on designing algorithms for IP portfolio valuation. Prior to her role as an economist, Kirti spent over a decade as a wireless systems engineering expert, working on research and development of third and fourth generation (3G and 4G) wireless cellular systems and has represented Qualcomm in various global technology standards bodies. She is a co-inventor of thirty-five patents in the field of

wireless communications. Dr. Gupta holds a Master's degree in Electrical Engineering from Purdue University, and a Ph.D. in Economics from the University of California, San Diego.

DAVID HELLER is a Senior Research Fellow (postdoc) at Max Planck Institute for Innovation and Competition in Munich. He obtained his Ph.D. in Economics from Goethe University Frankfurt, while having research visits at NYU Stern, Deutsche Bundesbank, and Hamburg Institute of International Economics. He teaches Finance at Goethe Business School in Frankfurt. His research interests are in the fields of applied microeconometrics, in particular innovation economics, corporate finance (entrepreneurial- and SME finance, IP-backed loans), intellectual property rights, innovation and science policy, investment theory, and the industrial organization of financial markets. His current research mainly focuses on the relation of financial resources and firm-level inventive activities.

CHRISTIAN HELMERS joined the Leavey School of Business in the Winter of 2014 as an Assistant Professor of Economics.

Professor Helmers' scholarship has appeared in top journals such as The Economic Journal, The Review of Economics and Statistics, and Quantitative Economics. His research focuses on innovation, intellectual property, and the economics of digitization. Professor Helmers came to Santa Clara from Universidad Carlos III, Madrid where he was an Assistant Professor. Prior to that, he worked as a research economist at the London School of Economics. He has been a visiting research scholar at UC Berkeley, Stanford, the World Intellectual Property Organization (WIPO), as well as Ludwig Maximilians University in Munich. He has been involved in policy related work for various organizations including WIPO, the European Patent Office (EPO), the UK Intellectual Property Office, the Chilean Intellectual Property Office (INAPI), and the International Trade Center UNCTAD/WTO.

Professor Helmers earned his B.A. in Economics from HEC University of Lausanne, and his M.Sc. in Economics for Development, as well as his DPhil. in Economics from the University of Oxford.

BRUCE H. KOBAYASHI's background in economics makes him a vital part of the law and economics focus at the Antonin Scalia Law School, George Mason University. Since coming to Scalia Law in 1992, he has been a frequent contributor to economics and law and economics journals. He previously served as a senior economist with the Federal Trade Commission, a senior research associate with the U.S. Sentencing Commission, and an economist with the U.S. Department of Justice. He recently served as the director of the FTC's Bureau of Economics.

Professor Kobayashi was educated at the University of California, Los Angeles, earning his BS in Economics and System Science (1981), and his MA (1982) and PhD (1986) in Economics.

He teaches Litigation and Dispute Resolution Theory, Quantitative Forensics, and Legal and Economic Theory of Intellectual Property.

SCOTT DUKE KOMINERS is the MBA Class of 1960 Associate Professor of Business Administration in the Entrepreneurial Management Unit, as well as a Faculty Affiliate of the Harvard Department of Economics and the Harvard Center of Mathematical Sciences and Applications, and a Research Economist at the National Bureau of Economic Research. He also serves as an Associate Editor for Management Science and Journal of Mechanism and Institution Design, and writes for Bloomberg Opinion.

After receiving his AB summa cum laude and Phi Beta Kappa in mathematics (with a minor in ethnomusicology) at Harvard University in 2009, Kominers earned his AM and PhD in Business Economics at Harvard, in 2010 and 2011, respectively. From 2011-2013, he was the inaugural Research Scholar at the Becker Friedman Institute at the University of Chicago; then from 2013-2017, he was a Junior Fellow at the Harvard Society of Fellows.

JUNG H. KWON is a Ph.D. candidate in Entrepreneurship and Strategic Management at the University of Texas at Dallas. Jung has endeavored to advance knowledge of (1) how firms strategically appropriate and create economic value from innovation investments and (2) how they internally reconfigure and externally mobilize resources to achieve competitive advantage. His dissertation, entitled "Strategic Management of Intellectual Property Rights and Technology Entrepreneurship," is composed of three closely related essays on the topic of IP management strategies employed by entrepreneurial technology-based firms. Jung draws on theoretical perspectives from strategic management, entrepreneurship, and organizational economics and applies them to a representative sample of the publicly listed firms and their U.S. patents encompassing various organizational settings. Jung has lead-authored research papers that are currently either under review or in preparation for submission to top-tier academic journals.

HONGGI LEE is an assistant professor in strategic management at the University of New Hampshire's Paul College of Business and Economics. His research explores the types of inventions that inventors generate, the decisions that inventors make in commercializing their inventions, and the effect of inventors' decisions on profitability and market competition. He has a PhD degree in strategy from Duke University's Fuqua School of Business.

DARYL LIM is Professor of Law and the Director of the Center for IP, Information & Privacy Law at the University of Illinois at Chicago (UIC) John Marshall Law School. John Marshall is a founding IP institution in the U.S. and is consistently ranked as one of the premier IP programs in the country.

Professor Lim is an award-winning author, observer, and commentator of global trends in IP and competition policy, and how they influence and are influenced by law, technology, economics, and politics.

He is also the inaugural Microsoft Professorial Fellowship (Hansen IP Institute, Fordham University School of Law), a 2019 Thomas Edison Innovation Fellowship (Antonin Scalia Law School, George Mason University), and one of twelve senior faculty members university-wide selected for UIC's Faculty Administrator Leadership Program in 2020. He was also nominated by the Provost to serve a three-year term on the university-level promotion and tenure committee.

GERARD LLOBET is associate professor of economics at CEMFI. He obtained his PhD in economics from University of Rochester. His research is specialized in industrial economics. Particularly, most of his work focuses on innovation and the implications of intellectual property rights as a mechanism to protect and compensate innovators. Part of his recent research has studied the interaction of intellectual property rights and competition policy. He has also worked in areas related to banking or public finance.

His papers are published in journals such as the Journal of Political Economy, Management Science, the Journal of Marketing Research, the Review of Financial Economics, the Journal of Economics and Management Strategy, or the International Journal of Industrial Economics.

CHRISTOS A. MAKRIDIS serves as the head of research for the National Artificial Intelligence Institute, a research professor at Arizona State University, a digital fellow at the MIT Sloan School of Management, and a senior adviser at Gallup. Christos earned his doctorates in economics and management science & engineering from Stanford University.

ALAN MARCO joins the School of Public Policy at Georgia Tech as a tenured Associate Professor. He is an economist, who specializes in the following fields: innovation and patent policy; science and technology policy; industrial organization; game theory; law and economics; intellectual property strategy and management; big data analytics; and other areas related to regulation and empirical legal studies. He comes to us from the U.S. Patent and Trademark Office (USPTO), where he held the position of Chief Economist. Prior to the USPTO, he held faculty positions as associate professor in the Williams School of Commerce at Washington and Lee University and associate professor of economics at Vassar College.

At the USPTO, Dr. Marco's research focused on policy-relevant topics in intellectual property. He is the co-creator of the USPTO's PatentsView.org, a free and open platform for exploring and accessing high-quality patent data. He also was the co-lead on the Cancer Moonshot Patent Challenge as part of the White House Cancer Moonshot Task Force, and he participated in the G-20 Innovation Task Force. Dr. Marco has published academic articles on the intellectual property marketplace, uncertainty in intellectual property rights, patent valuation, and high-tech mergers.

Dr. Marco earned his Ph.D. in economics from the University of California-Berkeley and his B.A. in mathematics and economics from Skidmore College.

ANDREA MINA is Associate Professor of Economics and Associate Scientific Coordinator of the Department of Excellence "EMbeDS" (Economics and Management in the Era of Data Science) at the Sant'Anna's School of Advanced Studies in Pisa. He is also Senior Research Fellow of the Centre for Business Research at the University of Cambridge. Before his appointment at Sant'Anna School, he was University Lecturer in Economics of Innovation at Cambridge Judge Business School and Director of Economic Studies and Fellow of St Edmund's College in Cambridge.

Andrea's research focuses on the theory and empirical analysis of technical change; science and technology policy; industrial dynamics and the financing of innovation. He has been Co-investigator and Principal Investigator of several projects funded, among others, by the UK Engineering and Physical Sciences Research Council (EPSRC), the Economic and Social Research Council (ESRC), the Medical Research Council (MRC), the National Endowment for Science, Technology and the Arts (NESTA), and the European Commission. In November 2019 he was appointed Pro-Rector for International Relations of the Sant'Anna School of Advanced Studies.

H. DENNIS PARK is an Associate Professor of Entrepreneurship and Innovation at the University of Texas at Dallas. His research examines effective governance mechanisms for new knowledge creation. In particular, his research examines how startups and established firms use external resources (e.g., external funding, knowledge developed outside the firm, human capital brought in through recruitment and acquisition) to create new knowledge and enhance performance. He currently serves as a Field Editor of the Journal of Business Venturing and on the editorial review board of the Strategic Entrepreneurship Journal.

GABRIELE PELLEGRINO is post-doctoral researcher at EPFL (Lausanne, Switzerland). He joined the Institute of Technology and Public Policy (Chair of Innovation and IP Policy) at College of Management of Technology in late 2015. Prior to EPFL he was research fellow at SPRU, University of Sussex and research fellow at the Economic and Statistics division at WIPO, Geneva. He obtained a PhD in Economics from University of Barcelona in December 2014. His research interests are in the field of Economics of Innovation and Economics of Science. In his current

research, he seeks to evaluate the role of the patent system in enabling knowledge disclosure and in promoting the development of new socially valuable technologies and innovation.

JEFFREY PRINCE As Chief Economist, Jeff Prince is based in OEA but is an advisor on economic issues to the Chairman, Commissioners, and Bureaus and Offices. Jeff currently serves as a professor of business economics and public policy at the Kelley School of Business at Indiana University. In addition, he is the Harold A. Poling Chair in Strategic Management and Co-Director of the Institute for Business Analytics at Kelley. His research at Kelley focuses on empirical analysis of technology markets and telecommunications, spanning topics including dynamic demand for computers, Internet adoption and usage, the inception of online/offline product competition, telecom bundling and mobile data usage. His teaching responsibilities have included econometrics, predictive analytics, managerial economics and regulatory economics.

Jeff's research has appeared in top general interest journals in both economics and management, including the American Economic Review, the International Economic Review, Management Science, and the Academy of Management Journal. He is the author of two textbooks: Managerial Economics and Business Strategy (with Mike Baye) and Predictive Analytics for Business Strategy. He is currently a co-editor at the Journal of Economics and Management Strategy, and is on the board of editors at Information Economics and Policy. Prior to Indiana, Jeff taught at Cornell University, and he holds a PhD in economics from Northwestern University.

NICHOLAS RADA is an Economist with the U.S. Patent and Trademark Office researching intellectual property in the global economy. Nicholas brings with him a decade of research from the Economic Research Service, U.S. Department of Agriculture. Between 2009 and 2019, Nicholas led a research program that investigated the nexus of science policy, agricultural total factor productivity (TFP), and economic development in rapidly emerging agricultural competitors Brazil, Russia, India, Indonesia, and China, as well as in the United States. The research identified how long-term investments in research, economic/trade policies, and the broader enabling environment (education, infrastructure, irrigation, etc.) lifted farm technical progress and efficiency improvements. In addition, Nicholas steered a research project that examined the changing relationship between farm size and agricultural TFP as countries reached different stages of economic development. Nicholas started his career by receiving a BS in Economics and an MS in Agricultural Economics from West Virginia University, and a PhD in Agricultural Economics from Oregon State University.

IMKE REIMERS is an associate professor of economics at Northeastern University in Boston. She is broadly interested in digital markets, information, and intellectual property. Her research currently focuses on two specific questions: 1) how do copyright and other forms of intellectual property affect access to information; and 2) how does information technology affect consumer and firm decisions as well as the functioning

and efficiency of markets? Imke received a Ph.D. in economics from the University of Minnesota in 2013, and she spent a year at the NBER in the digitization and copyright initiative before beginning as an assistant professor at Northeastern. In 2019, she also became a national champion tennis player in her age group.

PHILIP ROGERS is a PhD candidate at the Charles and Louise Travers Department of Political Science at the University of California, Berkeley. Focusing on the political economy of China, his research draws upon the nexus of law, policy, and business to study corporate regulation and technological innovation in domestic and international contexts. Philip holds a Bachelor of Arts in Economics, a Master of Public Policy and a Master of Arts in Chinese Studies from the University of Michigan. Before coming to Berkeley, he worked on transnational corporate law cases as a paralegal at the Shanghai office of Zhong Lun Law Firm.

TATIANA ROSÁ is a PhD student at Centro de Estudios Monetarios y Financieros (CEMFI) in Madrid. She holds a Master degree in Economics and Finance from CEMFI and a Licenciatura in Economics from Universidad de la República in Montevideo, Uruguay.

Before joining the PhD program, Tatiana worked for two years as an analyst in Compass Lexecon in Madrid and for four years as a consultant in CINVE, in Montevideo. Her main research interests are Empirical Industrial Organization, with special focus on Innovation, Structural Econometrics and Applied Microeconometrics.

MICHELLE SAKSENA is an Economist at the United States Patent and Trademark Office (USPTO). Her current research interests include the economics of ideas, intellectual property, applied microeconometrics, and microeconomics. Prior to working at the USPTO, she was a research economist with the U.S. Department of Agriculture's Economic Research Service (ERS) in the Food Economics Division. While at ERS, Michelle authored several peer-reviewed articles and reports, including "America's Eating Habits: Food Away From Home," a comprehensive report on food away from home in the United States. Michelle holds a Ph.D. in agricultural, environmental, and development economics from The Ohio State University, a M.S. from Johns Hopkins University, and a B.B.A. from the University of Wisconsin-Madison.

PEDRO SCHILLING-DE-CARVALHO is a PhD Candidate at the Faculty of Law of the University of Cambridge, where he is a Richard Tee Scholar at Sidney Sussex College. He holds an LLM in Commercial Law from the same institution (First Class Honours) and an LLB from the University of São Paulo. During his studies, he was awarded a grant from the São Paulo Research Foundation, a Chevening Scholarship, and a Cambridge International Scholarship. Currently, he is a research assistant at the Lauterpacht Centre for International Law, a rapporteur to Oxford International Organizations, Vice-Editor-in-Chief of the Cambridge Law Review and Managing Editor

of the Cambridge International Law Journal. Starting in the next academic semester, he will be a Visiting Scholar at Harvard Law School. Pedro has experience as a practicing attorney in Arbitration and was Chief of Staff to the Chief Justice of the Commercial Law Chamber of the São Paulo State Supreme Court.

RALPH SIEBERT joined the Krannert School of Management at Purdue University in January 2004. He is also an Adjunct Visiting Associate Professor at the University of Chicago (Booth School of Business).

Professor Siebert is working in the areas of industrial organization, applied microeconometrics, urban economics, health economics, and experimental economics. Most of his research is grounded in the interface between applied theory and empirical testing, i.e., structural modeling, while other studies relate to reduced-form regressions and applied theory. The large majority of his empirical work builds on theory that provides insights into counterfactuals, as well as underlying effects that drive the results.

Professor Siebert's research studies investigate the competitiveness of firms and market performance accounting for dynamic strategic interactions between firms. His work frequently focuses on policy-relevant topics to provide insights for antitrust and competition policy. One of the main methodological characteristics of his research is that it often goes beyond a static evaluation approach and emphasizes firm and industry dynamics. He devotes special attention to the interlink between technology and product market competition. His areas of expertise include various markets within the semiconductor industry, such as SRAM, DRAM, and flash memories, as well as the pharmaceutical industry, the housing market, and the health market.

Professor Siebert's studies primarily focus on the following topics: strategic alliances (mergers, joint ventures, licensing) multi-product competition and product differentiation, innovation, industry and firm dynamics (evolution of industries, learning by doing) and obesity.

Professor Siebert has various publications in top economics and general interest journals.

Professor Siebert was a (Visiting) Associate Professor at the University of Chicago, Harvard University, Yale University, University of Toronto, Ludwig Maximilians University (Munich, Germany), Center for Economic Studies (Munich, Germany), Social Science Research Institute (WZB, Germany), European School of Management and Technology (Berlin, Germany), and Humboldt-University (Berlin, Germany).

In 2011, Professor Siebert received the Young Scholar Award from Purdue University (Krannert School of Management). He also received awards as a distinguished teacher every year from 2005 onwards. He won the European Young Economist Award in two consecutive years, i.e., 2000 and 2001.

MARK SNYDER is Deputy General Counsel, Senior Vice President, Litigation at Qualcomm. Mark joined Qualcomm in 2008 and has represented the company in numerous intellectual property and licensing-related disputes. Currently, Mark is responsible for the coordination of patent policy and advocacy efforts.

Prior to joining Qualcomm, Mark worked in both law firms and as in-house counsel, most recently for Kyocera Wireless Corporation, where he managed the intellectual property group with responsibility for prosecution, licensing and litigation matters.

He earned an engineering degree from the University of Rochester and his law and MBA degrees from Boston College Law School and the Boston College Carroll School of Management.

D. DANIEL SOKOL focuses his teaching and scholarship on complex antitrust and other business issues from early stage start-ups to large multinational businesses and the issues that businesses face: corporate governance, compliance, innovation, pricing strategies, M&A, IP, collusion, and disparate regulation around the world. Sokol is also among the top 10 most cited antitrust law professors in the past five years. He is a Professor of Law at the University of Florida. This past semester, he was a Visiting Professor at the University of Florida Herbert Wertheim College of Engineering, where he remains Affiliate Faculty of the Nelms Institute for the Connected World (IoT center). This experience really unleashed his inner nerd where every day was like an episode of the *Big Bang Theory*. He co-organizes the university-wide Competition Policy Initiative, serves as a member of the Department of Economics Robert F. Lanzillotti Public Policy Research Center, and is Affiliate Faculty in the Warrington College of Business (ISOM Department).

MATTHEW L. SPITZER rejoined the Northwestern University School of Law faculty in July 2013 as the Director of the Northwestern University Center on Law, Business and Economics (formerly the Searle Center on Law, Regulation, and Economic Growth) at Northwestern Pritzker School of Law and as the Howard and Elizabeth Chapman Professor of Law. Professor Spitzer started his career at Northwestern Law as an Assistant Professor of Law from 1979 to 1981. Prior to rejoining Northwestern, Professor Spitzer was on both the faculties of Law and Business at the University of Texas, from July 2010 to June 2013. At the University of Texas he served as Director of the *Massey Prize in Law, Innovation and Capital Markets*, and also as the Director of the *Center for Law, Business and Economics*. Between 1981 and 2010, Professor Spitzer was Professor of Social Science at Caltech and Carl Mason Franklin Professor of Law at the University of Southern California. He was also Founder and Director of the *Center for Telecommunications Law and Policy* and Founder and Director of the *Center for Law and Economics*.

From 2000 to 2006 Professor Spitzer served as the Dean of the Gould School of Law at the University of Southern California. Under Professor (then Dean) Spitzer's leadership, the school increased in the rankings every year, In addition, Professor Spitzer raised over \$60 million dollars in gifts and pledges, oversaw hiring of crucial faculty, created USC Law's first LLM program, and oversaw two major building programs.

Professor Spitzer cofounded the field of experimental law and economics and founded the field of law and formal social choice theory. His many publications are in administrative law, telecommunications regulation, judicial politics, and law and economics. Recently Professor Spitzer has moved into the field of patent law, and is overseeing a large project on experimental patent law and economics.

DANIEL F. SPULBER is the Elinor Hobbs Distinguished Professor of International Business and Professor of Strategy at the Kellogg School of Management, Northwestern University, where he has taught since 1990. He is also Professor of Law (Courtesy) at the Northwestern University Pritzker School of Law. He received his Ph.D. in economics in 1979 and his M.A. in economics in 1976 from Northwestern University and his B.A. in economics in 1974 from the University of Michigan.

Spulber is the Research Director for the Northwestern University Center on Law, Business and Economics (formerly the Searle Center on Law, Regulation, and Economic Growth) at Northwestern Pritzker School of Law. He served as the founding director of Kellogg's International Business & Markets Program. Spulber has taught at Brown University, the University of Southern California, and Cal Tech.

A highly-valued speaker, Spulber has spoken at events sponsored by Oracle, Qualcomm, The Kauffman Foundation, The Technology Policy Institute, and The Global Competition Review.

Spulber's research is in the areas of Innovation, International Economics, Industrial Organization, Microeconomic Theory, Management Strategy, and Law. Spulber has received eight National Science Foundation grants, three Searle Fund Grants, and four Ewing Marion Kauffman Foundation Grants for economic research. Spulber is the founding editor of the *Journal of Economics & Management Strategy* published by Wiley-Blackwell.

Spulber is the author of thirteen books including <u>The Innovative Entrepreneur</u>, 2014, Cambridge University Press. His research is in the areas of Innovation Economics, Entrepreneurship, International Economics, Industrial Organization, Microeconomic Theory, Management Strategy, and Law.

Spulber has published numerous articles in leading economics journals and law reviews. Spulber was ranked 6th among economists in the United States in "Trends in Rankings of Economics Departments in the U.S.: An Update," L. C. Scott and P. M. Mitias, Economic Inquiry, 34, April, 1996, pp. 378-400. He was highly ranked for 1979-2003 adjusted appearances in "The Most Frequent Contributors to the Elite Economics Journals: Half Century of Contributions to the 'Blue Ribbon Eight'," J. L. Heck and P. A. Zaleski, Journal of Economics and Finance, 9 Spring, 2006, pp. 1-37.

MIKE TEODORESCU is an Assistant Professor in the Information Systems Department at Boston College. His research encompasses machine learning, technology innovation and adoption, and entrepreneurship. Specifically, Professor Teodorescu's research interests include the strategic use of patents by startups and within multinationals, applications of machine learning to firm strategy, and the ethics of machine learning in determining individual fates such as employment and lending. His teaching interests include the applications of 'Big Data' to management problems, business analytics, technology strategy, and intellectual property. He is an award winning teacher and has taught at both undergraduate and graduate levels, aiming to make the concepts and fundamental methods of big data and machine learning accessible to everyone, as analysis of large datasets is becoming essential for new hires becoming ever more important in all fields. He spent some of his doctoral years in the Office of the Chief Economist at the US Patent and Trademark Office, researching the effects of IP uncertainty on startup outcomes as well as collaborating with the economists of the USPTO on natural language processing applications on patents and other research topics currently underway.

Prior to his doctorate, Professor Teodorescu has worked as a software engineer at Microsoft on several major software products. His research interests prior to BC included artificial intelligence and applications of computer algorithms to the sciences. He is the author of several patents in technology fields (US Pat. 7,822,181 B2; US Pat. 8,143,607 B2; RO Pat. 123562) and co-author of several software related patent applications. He has several publications in engineering and computer science, primarily clustered around the field of artificial intelligence. He has served on boards of several startups and is the co-founder of the award winning 'Operating Room in a Backpack' medical device startup SurgiBox. Dr. Teodorescu serves on the Board of the Summer Science Program, a leading scientific education nonprofit established in 1959 as a collaboration of universities (MIT, Caltech, Purdue, NM Tech, and Harvey Mudd). He also serves as a Harvard College Alumni Interviewer and lends his business experience through volunteering in his home community.

Dr. Teodorescu's work has most recently been featured in an article on the <u>future of machine learning in business</u>, in McKinsey Analytics, IOT Solutions, and <u>HBS Working Knowledge</u> for work on machine learning methods applicable to business research. Professor Mike Teodorescu earned his Doctorate in Strategy from Harvard Business School with a dissertation on Machine Learning methods and strategic use of intellectual property. He also holds a Bachelors *cum laude* with High Honors in Computer Science from Harvard University with a thesis in Al. He is a US Citizen.

TONY W. TONG is a professor of strategy and entrepreneurship at the Leeds School of Business, the University of Colorado. He conducts research at the intersection of strategy, innovation, and globalization. Recent research draws from resource- and knowledge-based theory, real options theory, and organizational economics to study M&As, alliances, multinational firms, intellectual property rights, and digital innovation.

ANDREW TOOLE is the Chief Economist at the U.S. Patent and Trademark Office (USPTO) and a Research Associate at the Centre for European Economic Research (ZEW). Dr. Toole joined the USPTO with experience in the private sector, academia, and government. While completing his PhD in economics at Michigan State University, Andrew Toole was a Senior Economist for Laurits R. Christensen Associates where he conducted studies on total factor productivity, cost and price analysis, and competitive strategy. In 1998, Dr. Toole went to Stanford University as a postdoctoral student before becoming a faculty member at Illinois State University and Rutgers University in New Jersey. As an academic researcher, Dr. Toole was asked to advise on science and technology policy issues for institutions such as the U.S. National Academies of Science, U.S. National Institutes of Health, and the U.S. Department of Agriculture (USDA). In 2010, he joined the Science Policy Branch of USDA's Economic Research Service. His research focuses on the economics of innovation, intellectual property, and related science and technology policies. Dr. Toole has published in the Journal of Law and Economics, the Review of Economics and Statistics, Research Policy, Management Science, and many other peer-reviewed journals.

KEVIN TSENG is an Associate Professor of Finance at the National Taiwan University. Prior to joining NTU, he served as a Financial Economist at the Federal Reserve Bank of Richmond and as an Assistant Professor of Finance at the University of Kansas.

Kevin's research interest lies between the intercept between innovation, intangibles, and finance. In "More Cash Less Innovation," he finds that firms become less innovative following a sudden inflow of cash. In "Valuation of New Trademarks," he finds that while trademarks are often registered when new products/services are launched commercially to protect intellectual property, investors undervalue new trademarks, especially when analysts undervalue the trademarks and the cost to investors of paying attention is high.

Kevin received his bachelor's degree from National Chiao Tung University, an MBA from National Taiwan University, and his master's and doctoral degrees in finance from the Kellogg School of Management at Northwestern University.

SAURABH VISHNUBHAKAT is a professor at the Texas A&M University School of Law. He also holds a joint appointment as professor in the Texas A&M University Dwight Look College of Engineering and is a fellow of the Duke Law Center for Innovation Policy. Professor Vishnubhakat writes and teaches on intellectual property, administrative law, and civil procedure, especially from an empirical perspective. His scholarship has been cited in federal appellate and trial court opinions, agency reports and rulemaking, and over two dozen Supreme Court briefs.

Until 2015, Professor Vishnubhakat served in the United States Patent and Trademark Office as the principal legal advisor to that agency's first two chief economists. He was also a faculty fellow at the Duke Law School and a postdoctoral associate at the Duke Center for Public Genomics. He holds a J.D. and LL.M. in intellectual property from the Franklin Pierce Law Center, now the University of New Hampshire School of Law,

where he was an editor of the Law Review. He also holds a B.S. in chemistry from the Georgia Institute of Technology. He is admitted to the bars of Texas, Illinois, the Federal Circuit, and the Supreme Court.

LIAD WAGMAN is Professor of Economics at the Illinois Institute of Technology Stuart School of Business and Senior Economic and Technology Advisor at the Federal Trade Commission's Office of Policy Planning. Wagman works in the areas of Information Economics, Industrial Organization, Law and Economics, and Entrepreneurship, focusing on issues of data and privacy, information utilization and trade, and new venture financing. He is a recipient of the Sigma Xi Excellence in Research Award, the Bauer Family University Excellence in Teaching Award, the Yahoo Faculty Research and Engagement Award, and has been selected into Poet & Quants 2015 Top 40 Business School Faculty Under 40. He was Visiting Associate Professor of Executive Education and Managerial Economics & Decision Sciences at Northwestern University's Kellogg School of Management, a Visiting Scholar at the Duke University Economics Department, a research fellow at the Duke University Computer Science Department, a research fellow at the Duke University Social Sciences Research Institute, a recipient of the Program for Advanced Study in the Social Sciences Fellowship, a recipient of the Education and Research Initiative Award, a recipient of the Institute of Industrial and Systems Engineers Best Paper Award, and a recipient of the International Conference on Artificial Intelligence Outstanding Paper Award. Professor Wagman's work is published in academic journals in economics, finance, operations, and marketing. Wagman holds a Ph.D. and M.Sc. in Economics from Duke University and M.Sc. in Computer Science from Stanford University.

RUNHUA WANG is a Research Affiliate at Chicago-Kent Center for Empirical Studies of intellectual property (IP). Her interests are in the areas of intellectual property law and policy, corporate finance, innovation, and entrepreneurship. Her research employs empirical methods, law and economics theories, and comparative analyses. She received her LL.M. and J.S.D. from the University of Illinois College of Law. She worked as a Post-Doctoral Research Associate in the same law school for two years. She was a short-term invited researcher at the Institute of Intellectual Property in Tokyo, Japan, 2018. She was also a Thomas Edison Innovation Fellow (2018–19) sponsored by George Mason University. Between 2018 and 2020, she was an Empirical IP Fellow at Chicago-Kent and taught (Academic) Legal Writing, Introduction to IP, and Corporate Finance.

LAWRENCE J. WHITE is Robert Kavesh Professor of Economics at New York University's Stern School of Business. During 1986-1989 he was on leave to serve as Board Member, Federal Home Loan Bank Board, in which capacity he also served as Board Member for Freddie Mac; and during 1982-1983 he was on leave to serve as Director of the Economic Policy Office, Antitrust Division, U.S. Department of Justice. He has been the General Editor of the <u>Review of Industrial Organization</u> since 2004 and

was Secretary-Treasurer of the Western Economic Association International (2006-2009).

Prof. White received the B.A. from Harvard University (1964), the M.Sc. from the London School of Economics (1965), and the Ph.D. from Harvard University (1969). He is the author of The Automobile Industry Since 1945 (1971); Industrial Concentration and Economic Power in Pakistan (1974); Reforming Regulation: Processes and Problems (1981); The Problems (1982); The Public Library in the 1980s: The Problems of Choice (1983); The U.S. and the World (1988); Thrift Regulation (1991); and articles in leading economics, finance, and law journals. He is the co-author of Guaranteed to Fail: Fannie Mae, Freddie Mac, and the Debacle of Mortgage Finance, Princeton University Press, 2011 (with V.V. Acharya, M. Richardson, and S. Van Nieuwerburgh).

He is editor or coeditor of 14 volumes: Deregulation of the Banking and Securities Industries (1979); Mergers and Acquisitions: Current Problems in Perspective (1982); Technology and the Regulation of Financial Markets: Securities, Futures, and Banking (1986); Private Antitrust Litigation: New Evidence, New Learning (1988); The Antitrust Revolution (1989); Bank Management and Regulation (1992); Structural Change in Banking (1993); The Antitrust Revolution: The Role of Economics, 2nd edn. (1994); The Antitrust Revolution: Economics, Competition, and Policy, 3rd edn. (1999); The Antitrust Revolution: Economics, Competition, and Policy, 4th edn. (2004); The Antitrust Revolution: Economics, Competition, and Policy, 5th edn. (2009); The Antitrust Revolution: Economics, Competition, and Policy, 6th edn. (2014); The Antitrust Revolution: Economics, Competition, and Policy, 7th edn. (2019); and Regulating Wall Street: CHOICE Act vs. Dodd-Frank (2017). He was the North American Editor of the Journal of Industrial Economics, 1984-1987 and 1990-1995.

Prof. White served on the Senior Staff of the President's Council of Economic Advisers during 1978-1979. He was Chairman of the Stern School's Department of Economics, 1990-1995, and Deputy Chair, 2004-2016. He has been the Coordinator for Stern's Economics Ph.D. program since 2017.

Prof. White's webpage is found at http://pages.stern.nyu.edu/~lwhite/. His e-mail address is Lwhite@stern.nyu.edu.

JOSHUA D. WRIGHT is the Executive Director of the Global Antitrust Institute and holds a courtesy appointment in the Department of Economics. On January 1, 2013, the U.S. Senate unanimously confirmed Professor Wright as a member of the Federal Trade Commission (FTC), following his nomination by President Obama to that position. He rejoined Scalia Law School as a full-time member of the faculty in Fall 2015.

Professor Wright is a leading scholar in antitrust law, economics, intellectual property, and consumer protection, and has published more than 100 articles and book chapters, co-authored a leading antitrust casebook, and edited several book volumes focusing on

these issues. Professor Wright also served on the editorial board of the Supreme Court Economic Review, the Antitrust Law Journal, and the International Review of Law and Economics. Professor Wright's teaching and interests include Antitrust, Contracts, Administrative Law, Law and Economics, Intellectual Property and Antitrust, and Quantitative Methods. Professor Wright was awarded the Paul M. Bator Award by the Federalist Society in 2014 to "an academic who demonstrated excellence in legal scholarship, a commitment to teaching, a concern for students, and who has made a significant public impact."

Wright previously served the Commission in the Bureau of Competition as its inaugural Scholar-in-Residence from 2007 to 2008, where he focused on enforcement matters and competition policy. Wright's return to the FTC as a Commissioner marked his fourth stint at the agency, after having served as an intern in both the Bureau of Economics and Bureau of Competition in 1997 and 1998, respectively.

Wright received his JD from UCLA in 2002, his PhD in economics from UCLA in 2003, and graduated with honors from the University of California, San Diego in 1998. He is a member of the California and DC Bar.

CHENGUO ZHANG (COCO), LL.M. holds a chair of Associate Professor at the KoGuan Law School of Shanghai Jiaotong University, Shanghai, China. She is an affiliated research fellow at the Centre of European Law and Politics, University of Bremen, and the Max-Planck Institute for Innovation and Competition, Germany. She graduated from Tsinghua University, China (Bachelor of Law) and University Frankfurt (Master and Ph.D.), Germany. From 2013 to 2018, she taught intellectual property (IP) law at the University of Bremen and led a research project in innovation, competition, and cross-border conflict resolutions. She wrote columns for legal journals and translated classic works of jurisprudence from German to Chinese.

Her interests in research lie in the international, political, theoretical and instrumental facets of the IP law, data law and technology law with an emphasis on China and the EU. Her latest publications include papers on the regulations of sharing economy, the issue of personal data protection by the Chinese social credit system, the sui generis right of traditional knowledge and folklore in developing countries, the three-step test, and fair-use doctrine for more openness in copyright law, the latest development of the EU IP Law, the fourth amendment of the PRC Copyright Act as well as the PRC Patent Act. She wrote the book Protection of Collective Interests in German Law, published in Germany 2010.

HUIYAN ZHANG is a Ph.D. Candidate at Carnegie Mellon University's Heinz College of Information Systems and Public Policy, and Catolica Lisbon School of Business and Economics. Her research is about the economics of innovation, firm strategy, and international business, with a focus on patent policy and emerging economies. Her current research examines how patent policy changes, such as strengthening patent protection, in a weak IP protection system influence innovation incentives and follow-on

inventions. Specifically, her study explores, empirically and theoretically, how the innovation strategy and outcomes of both litigators and their rivals are impacted by litigation decisions.

Before she started her doctoral study, Huiyan was a senior research fellow affiliated to China's Patent Office. During the four-year work experience, she has conducted several research projects, as both the project leader and team members, on China's patent policy, annual patent surveys, and firm innovation incentives.