Hearings on Competition and Consumer Protection in the 21st Century

An FTC-Howard University Law School Event | November 13-14, 2018

SPEAKER BIOS

Tuesday, November 13, 2018

Welcome and Introductory Remarks

Andrew I. Gavil is a Professor at Howard University School of Law and Senior Of Counsel at Crowell & Moring LLP. He has written, lectured, and commented extensively on antitrust law and procedure. He currently serves as the Chair of the Editorial Board of the Antitrust Law Journal and Chair of the ABA Section of Antitrust Law's International Scholar in Residence Selection Committee. Previously, he served as the Director of the FTC's Office of Policy Planning.

Opening Address

Michael Kearns is a Professor and National Center Chair in the Department of Computer and Information Science at the University of Pennsylvania. His primary research interests are in machine learning, probabilistic artificial intelligence, algorithmic game theory, and computational finance. In June 2018, he became a Senior Advisor at Morgan Stanley on projects applying artificial intelligence and machine learning. He has worked extensively in quantitative and algorithmic trading on Wall Street, and often advises technology companies and venture capital firms. He has also served as an expert witness or consultant on technology-related legal and regulatory cases.

Introduction to Algorithms, Artificial Intelligence, and Predictive Analytics

John P. Dickerson is an Assistant Professor of Computer Science at the University of Maryland, College Park. His research centers on solving practical economic problems using techniques from stochastic optimization and machine learning. He has worked extensively on theoretical and empirical approaches to designing markets for organ allocation, dating, school admissions, and advertising.

Panel 1: Understanding Algorithms, Artificial Intelligence, and Predictive Analytics through Real World Applications

Michael D. Abràmoff is the Founder and CEO of IDx, the company that developed the first autonomous artificial intelligence system - making a diagnosis without human review - to receive FDA approval in any field of medicine. Dr Abràmoff is also a practicing retinal specialist and the Watzke Professor of Ophthalmology and Visual Sciences at the University of Iowa, as well as Professor of Electrical and Computer Engineering, and Biomedical Engineering. He has authored over 250 scientific papers, as well as 22 patents and patent applications on artificial intelligence, medical imaging, and image analysis,

and receives research support from the National Institutes of Health, Research to Prevent Blindness, Juvenile Diabetes Research Foundation, and the Department of Veterans Affairs.

Karen A. Goldman is an Attorney Advisor in the FTC's Office of Policy Planning, where she focuses on competition issues involving health care and intellectual property. Previously, she held a number of legal and scientific positions at the National Institutes of Health, the National Science Foundation, and the California Institute of Technology. She has also served as an Adjunct Professor at the Georgetown University Law Center, and has a PhD in neurosciences from the University of California at San Francisco.

Angela Granger is Vice President, Analytics, at Experian. She leads a team responsible for the design and delivery of advanced analytical solutions and has over 25 years of experience in analytics. She has participated in the design and commercial introduction of several advanced analytics products and services aimed at helping clients predict customer behavior and effectively manage a wide range of decisions related to repayment of debt, account utilization, default and fraud prevention.

Henry Kautz is the Director for the Division of Information & Intelligent Systems in the Directorate for Computer & Information Science & Engineering at the National Science Foundation. He is a Professor of Computer Science at the University of Rochester, where he was founding director of the Goergen Institute for Data Science. Dr. Kautz presents research funded by the National Science Foundation.

Harry N. Keeling is an Associate Professor and the Director of the Howard University Computer Science Program. Dr. Keeling has over thirty-five years of experience in the fields of information technology and computer science research. Throughout his career, he has sought to educate others and to add to the body of knowledge in the areas of machine learning and artificial intelligence. Dr. Keeling's continuing research in adaptive learning systems focuses on combining methods from the fields of educational research, online learning and intelligent tutoring.

Melissa McSherry leads Visa's Global Data Products team, which serves Visa clients and partners with predictive models and benchmarking to drive fraud prevention, customer engagement, underwriting, and marketing effectiveness. Prior to Visa, McSherry managed Subprime Acquisitions, Decision Sciences, and Marketing and Credit for card partnerships at Capital One.

Dana Rao is the Vice President and General Counsel at Adobe. He previously served as the Vice President of Intellectual Property and Litigation at Adobe, where he spearheaded strategic initiatives, including the company's litigation efforts, as well as its patent, trademark and copyright portfolio strategies. Prior to joining Adobe, he was the Associate General Counsel of Intellectual Property and Licensing at Microsoft, where he oversaw all patent matters for Microsoft's entertainment and devices division, as well as the company-wide patent acquisition team.

Teresa Zayas Cabán is a Chief Scientist for the Office of the National Coordinator for Health Information Technology (ONC), U.S. Department of Health and Human Services. She is responsible for developing and evaluating ONC's overall scientific efforts and activities. She directs ONC's precision medicine initiatives activities and provides oversight of ONC's patient-centered outcomes research projects. Dr. Zayas Cabán was previously the Chief of Health IT research and Acting Director of the Division of Health IT at the Agency for Healthcare Research and Quality.

Panel 2: Perspectives on Ethics and Common Principles in Algorithms, Artificial Intelligence, and Predictive Analytics

Erika Brown Lee is a Senior Vice President and Assistant General Counsel at Mastercard. Ms. Brown Lee leads the team that develops policies, provides guidance, and ensures compliance with privacy and data protection laws across the company's products and services, including payment processing, data analytics, and fraud-related activities for North America, Latin America and the Caribbean. Previously, she was the Chief Privacy and Civil Liberties Officer of the U.S. Department of Justice and served in the FTC's Division of Privacy and Identity Protection in the Bureau of Consumer Protection.

Rumman Chowdhury is the Global Lead for Responsible AI at Accenture Applied Intelligence, where she works with C-suite clients to create cutting-edge technical solutions for ethical, explainable, and transparent artificial intelligence. Her primary research interests include the intersection of artificial intelligence and humanity, as well as how business leaders should define and enforce ethical behavior and ensure safety and transparency in artificial intelligence and automated systems.

James Foulds is an Assistant Professor in the Department of Information Systems at the University of Maryland, Baltimore County. His research aims to improve the role of artificial intelligence in society regarding fairness, privacy, and computational social science, using probabilistic machine learning methods. His research on fairness is supported in part by the National Institute of Standards and Technology.

Karen A. Goldman is an Attorney Advisor in the FTC's Office of Policy Planning, where she focuses on competition issues involving health care and intellectual property. Previously, she held a number of legal and scientific positions at the National Institutes of Health, the National Science Foundation, and the California Institute of Technology. She has also served as an Adjunct Professor at the Georgetown University Law Center, and has a PhD in neurosciences from the University of California at San Francisco.

Naomi Lefkovitz is the Senior Privacy Policy Advisor and Lead for the Privacy Framework in the Information Technology Lab at the National Institute of Standards and Technology, U.S. Department of Commerce. Previously, she was the Director for Privacy and Civil Liberties in the Cybersecurity Directorate of the National Security Council in the Executive Office of the President, and an Attorney with the FTC's Division of Privacy and Identity Protection in the Bureau of Consumer Protection.

Mark MacCarthy is the Senior Vice President of Public Policy for the Software & Information Industry Association, the principal association for the software and digital content industries. He directs initiatives and advises member companies on technology policy, privacy, artificial intelligence and ethics, content moderation, and technology competition policy. He also serves on the faculty of Georgetown University, where he teaches courses in the Communications, Culture & Technology Program, and is an affiliate of the Georgetown Center for Business and Public Policy.

James Trilling is an Attorney in the FTC's Division of Privacy and Identity Protection in the Bureau of Consumer Protection. At the FTC, he has led policy initiatives, investigations, and litigation enforcement actions involving a wide range of consumer protection issues, including online privacy and data security. He also served a two-year detail as counsel to the U.S. Senate Committee on Commerce, Science, and Transportation. Before joining the FTC, he litigated a variety of cases at a law firm in Washington, DC, and clerked for then-U.S. District Court Judge David F. Hamilton.

Mark Wattenberg is a Senior Research Scientist at Google, where he co-leads the PAIR (People + AI Research) initiative, and focuses on making AI technology broadly accessible and reflective of human values. His team has created end-user visualizations for products such as Search, YouTube, and Google Analytics. Before joining Google, he co-founded Flowing Media, Inc., a visualization studio focused on media and consumer-oriented projects. Prior to Flowing Media, he founded IBM's Visual Communication Lab, which created the public visualization platform Many Eyes.

Panel 3: Consumer Protection Implications of Algorithms, Artificial Intelligence, and Predictive Analytics

Ryan Calo is the Lane Powell and D. Wayne Gittinger Associate Professor at the University of Washington School of Law, and a faculty co-director of the University of Washington Tech Policy Lab. Professor Calo is an internationally recognized expert in the law and policy implications of emerging technologies, including artificial intelligence and robotics.

Fred H. Cate is the Vice President for Research, Distinguished Professor and C. Ben Dutton Professor of Law at Indiana University. He served as the founding director of IU's Center for Applied Cybersecurity Research, from 2003 to 2014, where he is now a senior fellow. He also served as founding director of IU's Center for Law, Ethics, and Applied Research in Health Information from 2010 to 2015, and is a senior policy advisory at the Centre for Information Policy Leadership.

Jeremy Gillula is the Director of Tech Policy at the Electronic Frontier Foundation. He works at the intersection of technology and civil liberties issues, including mobile devices, big data, net neutrality, and algorithmic fairness and transparency. He began his career in academia doing research in the fields of robotics and machine learning, and participated in the DARPA Desert Grand Challenge.

Tiffany George is a Senior Attorney in the FTC's Division of Privacy and Identity Protection in the Bureau of Consumer Protection. She focuses primarily on enforcement and policy issues relating to the Fair Credit Reporting Act, big data, privacy, data security, and identity theft. Ms. George was one of the primary authors of the FTC's Big Data and Data Broker reports.

Irene Liu is the General Counsel of Checkr, a provider of modern and compliant background checks for global enterprises and on-demand startups. Prior to Checkr, Ms. Liu worked in-house at Lookout and BlackBerry and in the government at the U.S. Department of Justice, Antitrust Division and in the FTC's Bureau of Consumer Protection.

Marianela López-Galdos is the Director of Competition & Regulatory Policy at the Computer & Communications Industry Association (CCIA). She represents and advises CCIA on competition policy, as well as domestic and international regulatory policy, including the regulation of artificial intelligence. She is a fellow at the University of Melboune Law School where she teaches competition law and policy, and is also affiliated with the George Washington University Competition Law Center.

Katherine Worthman is an Attorney in the FTC's Division of Financial Practices in the Bureau of Consumer Protection. She has been lead counsel on multiple matters alleging unfair or deceptive acts and practices including FTC v. Uber Technologies, Inc. and FTC v. AT&T Mobility LLC. She also was lead counsel in FTC v. Golden Empire Mortgage, Inc., in which the allegations involved discriminatory lending. Additionally, Ms. Worthman coordinated the FTC's workshops on lead generation, Follow the Lead, and the Staff Perspective associated with the workshop.

SPEAKER BIOS

Wednesday, November 14, 2018

Welcome and Introductory Remarks

Bruce Hoffman is the Director of the Bureau of Competition at the FTC. He came to the FTC from Shearman & Stearling, where he was global co-head of the firm's antitrust practice. Previously, he served as Chair of Hunton & Williams' antitrust practice, and prior to that, as Deputy Director and Associate Director of the FTC's Bureau of Competition.

Panel 1: Algorithmic Collusion

Rosa M. Abrantes-Metz is a Managing Director in the antitrust, securities, data mining and financial regulation practices of Global Economics Group and an Adjunct Professor at Leonard N. Stern School of Business, New York University. A significant part of her work is in matters involving collusion, manipulation, and fraud in a variety of industries, including but not exclusively, financial and commodities markets. She is widely published in these and other topics. Previously, Dr. Abrantes-Metz served in the FTC's Bureau of Economics.

Ellen Connelly is an Attorney Advisor in the FTC's Office of Policy Planning, where she primarily works on advocacy matters in the health care industry and on matters at the intersection of competition and technology. She was previously an attorney in the Health Care Division of the FTC's Bureau of Competition, where she led investigations of anticompetitive behavior in the pharmaceutical industry and by hospitals and physician groups.

Ai Deng is a Principal at Bates White, an adjunct faculty member at Johns Hopkins University, and an invited external expert for the Romanian National Council for Scientific Research. His current research interests include predictive and causal inferences using machine learning algorithms with applications to price and market manipulation, as well as the intersection between technology (particularly artificial intelligence and blockchain) and antitrust. He is widely published in these topics, and provides litigation consulting to clients. He has also worked extensively with government agencies, including the FTC.

Joseph E. Harrington, Jr. is the Patrick T. Harker Professor of Business Economics and Public Policy at the Wharton School, University of Pennsylvania. His research on collusion is widely published in economics and antitrust law journals, and has been presented before more than a dozen competition authorities. His books include *The Theory of Collusion and Competition Policy* and *How Do Cartels Operate?*, and he is a co-author of *Economics of Regulation and Antitrust*.

Kai-Uwe Kühn is a Senior Consultant to the Competition Practice of Charles River Associates and a Professor of Economics and the Deputy Director of the Center for Competition Policy at the University of East Anglia School of Economics. He is also a Visiting Professor at the Düsseldorf Institute for Competition Economics and a Research Fellow of the Center for Economic Policy Research. Previously, Dr. Kühn was Chief Economist at DG Competition, where he worked extensively on antitrust issues in financial markets and the internet economy.

Sonia Kuester Pfaffenroth is a Partner at Arnold & Porter, where her practice focuses on complex antitrust investigations, litigation, and client counseling. She recently co-authored an advisory paper on the antitrust implications of pricing algorithms. Previously, she served in the U.S. Department of Justice, Antitrust Division, as the Deputy Assistant Attorney General for Civil and Criminal Operations.

James Rhilinger is a Deputy Assistant Director of the Mergers II Division in the FTC's Bureau of Competition. In that role, he oversees investigations into the potential competitive effects of mergers in a wide range of industries. Previously, James was an attorney in the Health Care Division of the FTC's Bureau of Competition, where he focused primarily on conduct in the pharmaceutical industry, including investigations and law enforcement actions. James joined the FTC in 2004, and prior to that practiced antitrust law for several years in the Washington, D.C. office of an international law firm.

Maurice E. Stucke is a Co-Founder of the law firm, the Konkurrenz Group, and a Professor at the University of Tennessee College of Law. He advises governments, law firms, consumer groups, and multi-national firms on competition and privacy issues. He serves as a non-governmental advisor to the International Competition Network, as a Senior Fellow at the American Antitrust Institute, and on the board of the Institute for Consumer Antitrust Studies. Previously, he served as an attorney at the U.S. Department of Justice, Antitrust Division, and as a Special Assistant U.S. Attorney.

Framing Presentation (prerecorded)

Michael I. Jordan is the Pehong Chen Distinguished Professor in the Department of Electrical Engineering and Computer Science and the Department of Statistics at the University of California, Berkeley. He has worked for over three decades in the computational, inferential, cognitive and biological sciences, first as a graduate student at the University of California, San Diego, and then as a faculty member at MIT and Berkeley. His primary research areas include machine learning, statistics, and artificial intelligence.

Panel 2: Emerging Competition, Innovation, and Market Structure Issues around Algorithms, Artificial Intelligence, and Predictive Analytics

Robin Feldman is the Arthur J. Goldberg Distinguished Professor of Law and the Director of the Innovation Law Institute at the University of California, Hastings College of the Law. She participated in the U.S. Government Accountability Office's report to Congress on artificial intelligence, the Army Cyber Institute's threatcasting exercise on weaponization of data, and the National Academies of Sciences roundtable on artificial intelligence and life science. She testifies frequently before regulatory agencies and Congress.

Joshua Gans is a Professor of Strategic Management and holder of the Jeffrey S. Skoll Chair in Technical Innovation and Entrepreneurship at the Rotman School of Management, University of Toronto. His current research interests include the digital economy, innovation, artificial intelligence and the blockchain. He is also an academic associate with the Brattle Group and has provided expert advice to the FTC, the Australian Competition and Consumer Commission, and numerous private parties. He has received funding from the Sloan Foundation and CiFAR for artificial intelligence research.

Preston McAfee is a former Professor of Economics at the California Institute of Technology and the University of Texas. He has written extensively on auctions, pricing, antitrust, business strategy, and the intersection of computer science and economics. Previously, he was a researcher and executive at Microsoft, Google, and Yahoo. Charles River Associates funded Mr. McAfee's travel expenses for these hearings.

Brian O'Dea is an Attorney in the FTC's Mergers I Division of the Bureau of Competition. From 2014 to the spring of 2018, Brian served as an Attorney Advisor to Commissioner Terrell McSweeny, with whom he co-authored articles on algorithmic pricing and digital markets. Previously, he worked as an attorney in the antitrust practice of O'Melveny & Myers.

Nicolas Petit is Professor of Law at the University of Liège, Belgium, a Research Professor at the School of Law of the University of South Australia in Adelaide, and a Visiting Fellow at the Hoover Institution at Stanford University. His current research focuses on three areas: antitrust and digital economy firms, patent protection as an engine of innovation, and law creation in a context of technological evolution. His recent written work deals with the limits of antitrust economics in relation to technology giants and the legal frictions created by the introduction of artificial intelligence in society.

Nathan Wilson is an Acting Deputy Assistant Director in the FTC's Bureau of Economics. From 2015 to 2018, he served as Commissioner Terrell McSweeny's economic advisor. His fields of interest include industrial organization, applied microeconomics, and applied microeconometrics.

Presentation

Joy Buolamwini is the Founder of the Algorithmic Justice League, which researches the social implications and technical capabilities of artificial intelligence while increasing public understanding of bias in technology. Her TED featured talk on algorithmic bias has been viewed over 1 million times. Her New York Times op-ed on the dangers of facial analysis technology galvanized lawmakers to investigate the risks posed by this technology. At the MIT Media Lab, she pioneered techniques that are now leading to increased transparency in the accuracy of facial analysis technology globally. She is a Rhodes Scholar and Fulbright Fellow who holds two masters degrees from Oxford University and MIT, along with a bachelor's degree in Computer Science from the Georgia Institute of Technology. She is completing a PhD at MIT focused on participatory AI.

Keynote

Jennifer Wortman Vaughan is a Senior Researcher at Microsoft Research, New York City and part of Microsoft's FATE (Fairness, Accountability, Transparency, and Ethics) group. Her research background is in machine learning and algorithmic economics, and she is especially interested in the interaction between people and artificial intelligence. Prior to joining Microsoft Research, Dr. Wortman Vaughan was an Assistant Professor in the Computer Science Department at the University of California, Los Angeles, and a Computing Innovation Fellow at Harvard University.

Panel 3: Wrapping Up and Looking Ahead: Roundtable Discussion of Key Legal and Regulatory Questions in the Field

Justin Brookman is the Director of Consumer Privacy and Technology Policy for Consumers Union, where he is working to shape the digital marketplace in a way that empowers consumers and prioritizes consumer data privacy and security. Previously, he was the Policy Director of the FTC's Office of Technology Research and Investigation, and the Director of Consumer Privacy at the Center for Democracy & Technology.

Ellen Connelly is an Attorney Advisor in the FTC's Office of Policy Planning, where she primarily works on advocacy matters in the health care industry and on matters at the intersection of competition and technology. She was previously an attorney in the Health Care Division of the FTC's Bureau of Competition, where she led investigations of anticompetitive behavior in the pharmaceutical industry and by hospitals and physician groups.

Pam Dixon is the Founder and Executive Director of the World Privacy Forum, a public interest research group focused on consumer data privacy issues. Her research areas include biometrics, artificial intelligence, data brokers, health privacy, identity, and complex digital ecosystems. She was the lead author of *The Scoring of America*, a substantive report on predictive analytics and privacy issues associated with consumer scoring; and the author of *A Failure to Do No Harm*, regarding India's Aadhaar ecosystem. She is a member of the OECD Expert Group on Artificial Intelligence.

Salil Mehra is the Charles Klein Professor of Law and Government at Temple University's James E. Beasley School of Law, where he teaches courses in antitrust, contracts, and law and economics. He has published articles on antitrust in the 21st century economy. He is a non-governmental adviser to the International Competition Network and a former Abe Fellow of Japan's Center for Global Partnership.

Arvind Narayanan is an Associate Professor of Computer Science at Princeton University, where he leads the Princeton Web Transparency and Accountability Project to uncover how companies collect and use personal information. He also leads a research team investigating the security, anonymity, and stability of cryptocurrencies and novel applications of blockchains. He received the Privacy Enhancing Technologies Award for his doctoral research on the limits of de-identification.

Joshua New is a Senior Policy Analyst at the Center for Data Innovation, a non-profit, non-partisan public policy think tank affiliated with the Information Technology and Innovation Foundation. He leads the Center's work on issues related to artificial intelligence, the Internet of Things, and open data.

Benjamin Rossen is a Senior Attorney in the FTC's Division of Privacy and Identity Protection in the Bureau of Consumer Protection. Prior to joining the FTC, he served as a law clerk to the Hon. Carol Bagley Amon of the U.S. District Court for the Eastern District of New York and practiced antitrust and consumer protection law at Patterson Belknap Webb & Tyler and Cravath, Swaine & Moore.

Nicol Turner-Lee is a Fellow at the Brookings Institution's Center for Technology Innovation, where she researches public policy designed to enable equitable access to technology, as well as global and domestic broadband deployment, regulatory, and internet governance issues. She is an expert on the intersection of race, wealth, and technology within the context of civic engagement, criminal justice, and economic development. She is a Visiting Scholar at the Center for Gender Equity in Science and Technology at Arizona State University, and she is an appointee on the Federal Communications Commission's Advisory Committee on Diversity and Digital Empowerment.

Closing Remarks

Danielle Holley-Walker is the Dean and Professor of Law at Howard University School of Law, where she teaches courses in civil procedure, administrative law, legislation and regulation, federal courts, and inequality and education. Her ongoing research deals with public school governance and diversity in the legal profession. Previously, she was the Associate Dean for Academic Affairs and Distinguished Professor of Law at the University of South Carolina. She clerked for Chief Judge Carl E. Stewart of the United States Court of Appeals for the Fifth Circuit, and practiced civil litigation at Fulbright & Jaworski.