

The 51st Research Conference on Communications, Information and Internet Policy September 22-23, 2023

Hybrid Conference
All times shown are Eastern Time

Hosted by American University Washington College of Law

Thursday, September 21, 2023

9:00 am Graduate Student Workshop (by invitation)
2:00 pm Tutorial on Artificial Intelligence (by RSVP)

Friday, September 22, 2023

8:30 am Registration and Coffee
9:00 am Paper Sessions outlined in grid
10:35 am Coffee Break and Networking
11:00 am Paper Sessions outlined in grid
12:45 pm Lunch and Keynote Speaker, **Gigi Sohn**, Executive Director, American Association for Public Broadband
2:05 pm Panels as listed below
3:35 pm Coffee Break and Networking sponsored
4:00 pm Paper Sessions outlined in grid
5:45 pm Posters/Reception
6:30 pm Dinner and Keynote Speaker, **Alan Davidson**, Assistant Secretary for Communications and Information, NTIA

Saturday, September 23, 2023

8:30 am Registration and Coffee
9:00 am Paper Sessions outlined in grid
10:35 am Coffee Break and Networking
11:00 am Paper Sessions outlined in grid
12:45 pm Lunch/Student Paper Awards and Announcements
2:00 pm Panels listed below
3:30 pm Coffee Break and Networking
4:00 pm Paper Sessions outlined in grid

For complete details and descriptions, please see our website, www.tprcweb.com.

Conference Information

The 51st Annual Telecommunications Policy Research Conference will be held in person at Washington College of Law, American University in Washington, DC. There will be a virtual component for those unable to travel. Each registrant will be sent a link to our scheduling tool, SCHED, which will provide information about each of the sessions. Sessions will be recorded and archived for future viewing. Please contact Laura Verinder, laura.verinder@gmail.com with any questions.

Conference Registration

Online registration is available at <https://www.tprcweb.com/>.

Conference Fees

	Early Registration		After August 25	
	Virtual	In-Person	Virtual	In-Person
Student	\$50.00	\$125.00	\$75.00	\$250.00
Author/Presenter/Discussant	\$205.00	\$255.00	\$305.00	\$405.00
Academic	\$255.00	\$460.00	\$355.00	\$600.00
Government	\$255.00	\$460.00	\$355.00	\$600.00
Not for Profit	\$255.00	\$460.00	\$355.00	\$600.00
Corporate	\$495.00	\$695.00	\$595.00	\$850.00

Registration fees cover all conference sessions and access to recorded sessions.



Follow us on Twitter
@TPRCtweets #TPRC2023
Join our newsletter at
www.tprcweb.com

TPRC 2023 Board of Directors

Amit Schejter, Chair

Ben Gurion University and Penn State University

David Young, Vice Chair

Robin Mansell, Secretary

London School of Economics

Maureen Lewis, Treasurer

Francine Alkisswani, NTIA

Jesse Blumenthal, Apple

Marjory Blumenthal, MSBlumenthal, LLC

Shawn Chang, Wiley Rein

Rick Cimerman, NCTA

kc Claffy, UCSD CAIDA

Derrick Cogburn, American University

Monica Desai, Meta

Bill Dutton, Oxford University

Janice Hauge, University of North Texas

Gus Hurwitz, University of Nebraska-Lincoln

Carleen Maitland, Pennsylvania State University

Koy Miller, Verizon

Karen Mossberger, Arizona State University

Jon Peha, Carnegie Mellon University

Tom Power, CTIA

Sharon Strover, The University of Texas at Austin

Scott Wallsten, Technology Policy Institute

Christopher Yoo, University of Pennsylvania Law School

TPRC 2023 Program Committee

David Reed, Chair University of Colorado

Marcela Gomez, Vice-Chair University of Pittsburgh

Derek Bambauer, University of Arizona

Roxana Barrantes, Pontificia Universidad Católica del Perú PUCP

Silvia Elaluf-Calderwood, Florida International University

Hernan Galperin, University of Southern California

Simson Garfinkel, Digital Corporate Project

Rafi Goldberg, NTIA

Carlos Ignacio Gutierrez, Future of Life Institute

Dominique Harrison

Jonathan Liebenau, London School of Economics

Christos Makridis, Stanford University

Catherine Mulligan, IST, University of Lisbon

Sarah Oh Lam, Technology Policy Institute

Aurelien Portuese, George Washington University

Petrus Potgieter, University of South Africa

James Prieger, Pepperdine University

William Rinehart, Center for Growth and Opportunity

Rob Rubinovitz, NCTA

Madelyn Rose Sanfilippo, University of Illinois at Urbana-Champaign

Karen Solis, MIT

Volker Stocker, Weizenbaum Institute for the Networked Society

Dhanaraj Thakur, Center for Democracy and Technology

Peter Tenhula, Silicon Flatirons, University of Colorado

Laurin Weissinger, Fletcher School, Tufts University

BROADBAND
.MONEY

2023 SPONSORS

verizon^v



AT&T

Apple

CableLabs[®]



Google



ACT | The App Association
Benton Institute for Broadband & Society
Center for Technology Innovation- Brookings Institution
Free State Foundation
GLIA Foundation
Information Technology & Innovation Foundation
Strand Consult
Technology Policy Institute
Open Technology Institute/New America
Center on Technology, Data & Society- School of Public Affairs, Arizona State University
Center for Technology, Innovation and Competition- University of Pennsylvania Law School

College of Information Studies (iSchool)- University of Maryland
Digital Markets Initiative, Public Utility Research Center- University of Florida
Quello Center at Michigan State University
London School of Economics and Political Science
Public Policy Research Center- University of Florida
Technology and Information Policy Institute- University of Texas
University of Chicago Data Science Institute
University of Colorado Law School - Silicon Flatirons Center
University of Pittsburgh, Center for Governance and Markets
Lerman Center

For additional information on sponsorship opportunities, contact Syd Verinder at syd.verinder@gmail.com

TPRC 2023 September 22-23, 2023
August 24, 2023- Program Subject to Change

Sessions Friday, September 22

9:00 - 10:35	Broadband Deployment, Access and the Digital Divide	Policy and Governance Implications of Emerging Technologies	Policies Governing the Digital Economy	ICT and Gender, Race, Ethnicity, Diversity	Broadband Deployment and Digital Sovereignty
	Discussant James Prieger Pepperdine University	Discussant Christos Makardis Stanford University	Discussant Scott Walsten Technology Policy Institute	Discussant Mark Jamison University of Florida	Discussant Amit Schejter Ben-Gurion University of the Negev
9:01 – 9:31	The Fiber Broadband Housing Premium Across Three States. Brian Whitacre, Oklahoma State University	What to Do with A Double-edged Sword: Public Views on Regulating ChatGPT through Third Person Effect Myojung Chung, Northeastern University, S. Mo Jones-Jang, Boston College, Nuri Kim, Nanyang Technological University, Jihyang Choi, Sangwon Lee, New Mexico State University	They Are Among Us: Pricing Behavior of Algorithms in the Field. Niklas Fourberg, WIK, Katrin Marques Magalhaes, WIK and Lukas Wiewiorra, WIK VIRTUAL	Evidence-Based Pathways for Leveling Digital Access in Higher Education During and Beyond the COVID-19 Pandemic. Christopher Ali, Bellisario College of Communications, Penn State University, and Vikki Katz, Chapman University	An Authoritarian Approach to Digital Sovereignty? Chinese and Russian Data Localization Models. Liliya Khasanova, Berlin - Potsdam Research Group and Katharin Tai, MIT Department of Political Science
9:33 – 10:03	Michigan Broadband Personas - Assessing Why Households Lack Reliable Service Using Survey Responses, Speed Tests, and Location. Amy Stuyvesant, Merit Network, and Julia Piscioniere, Merit Network	Evaluating Algorithmic Governance Policies: A Game Theoretic Analysis. Carolyn Gideon, Tufts University	Crouching Tiger, Hidden Agenda?: The Emergence of China in the Global Internet Standard Setting Arena Christopher Yoo, University of Pennsylvania and Alexander Mueller, University of Pennsylvania	High and Low: Residential Broadband Pricing and Quality Innovation in U.S. Urban Areas during the COVID-19 Pandemic. Kenneth Flamm, The University of Texas at Austin and Roberto Gillmore, The University of Texas at Austin	Principle-based Framework Towards Cross-Border Data Transfers. Kamesh Shekar, The Dialogue, Ayush Tripathi, The Dialogue and Bhavya Birla, The Dialogue
10:05 – 10:35	Measuring the Success of the Affordable Connectivity Program. River Schieberl, Ready.net, and Nikki Ahmadi, Ready.net VIRTUAL	AI as Citizen Empowerment and Game Changer for Regulation, Eli Noam, Columbia University	A Double-Edged Bytesaber: Internet Control As A Production Subsidy And An Innovation Tax. Meicen Sun, Stanford University (Student Paper Award)	Inmate Calling Service (ICS) Cost Model. Coleman Bazelon, The Brattle Group, Paroma Sanyal, The Brattle Group, Preetul Sen, The Brattle Group, Natalie Sefle, The Brattle Group, Shea Peretz, The Brattle Group, Sarah Mathers, The Brattle Group	Digitalizing the Grassroots: Addressing the Internet Connectivity Challenge in Africa and Globally Bottom-up Lee McKnight, Syracuse University, Jane Appiah-Okyere, Syracuse University, William Lehr, Massachusetts Institute of Technology, Sai Bolla, Syracuse University, and Kwaku Antwi, Africa Open Data and Internet Research Foundation

11:00 - 12:35	Broadband Deployment, Access and the Digital Divide	ICT and Gender, Race, Ethnicity, Diversity	Antitrust and Competition Policy in Communications, Information, and Internet Markets	Criticality of Broadband Infrastructure	Social Dimensions to Communications and Internet Policy
	Discussant Jon Peha Carnegie Mellon University	Discussant Silvia Elaluf-Calderwood Florida International University	Discussant Aurelien Porteuse George Washington University	Discussant Roxana Barrantes Pontificia Universidad Católica del Perú PUCP	Discussant Roslyn Layton Aalborg University
11:01 - 11:31	Prospective Evaluation of Next Generation Wireless Broadband Technologies: 6G versus Wi-Fi 7/8 Edward Oughton, George Mason University, Giovanni Geraci, Universitat Pompeu Fabra, Vijay Shah, George Mason University and Michele Polese, Northeastern University	Product Bundling and Exploitative Pricing in Prison Telecommunications Contracts. Coleman Bazelon, Brattle Group, Paroma Sanyal, Brattle Group, Preetul Sen, Brattle Group, Natalie Selfe, Brattle Group, Ece Yegane, Brattle Group	Market Structure, Investment, and Technical Efficiencies in Mobile Telecommunications. Jonathan Elliott, Johns Hopkins University, Georges Hounqbonon, FC World Bank, Marc Ivaldi, Toulouse School of Economics, and Paul Scott, New York University	Broadband and growth in the Spanish municipalities. Rafael González-Val, Universidad de Zaragoza & IEB	Government Misinformation Platforms Janet Freilich, Fordham Law School VIRTUAL
11:33 - 12:03	Measuring Internet Access Networks Across Space and Time. Nick Feamster, University of Chicago and Nicole Marwell, University of Chicago VIRTUAL	Comprehensive Understandings of Factors Impacting Seniors' Digital Literacy Training Outcomes Hyewon Park, Community Tech Network, Sabrina Tam, Community Tech Network and Patricia Jew, Community Tech Network VIRTUAL	The Impact of Shared Telecom Infrastructure on Digital Connectivity and Inclusion. Georges Vivien Hounqbonon, International Finance Corporation, Marc Ivaldi, Toulouse School of Economics, Emil Palikot, Stanford University and Davide Strusani, International Finance Corporation	How to Remedy Post Covid Pandemic Setbacks in Bridging the Digital Divide Rob Frieden, The Pennsylvania State University	Anticipating digital skills policy outcomes: a pseudo-panel evaluation of outreach initiatives in Italy. Francesco Olivanti, School of Management, Politecnico di Milano and Luca Gastaldi, School of Management, Politecnico di Milano
12:05 - 12:35	If we build it, will they come? Strategies to Advance High Impact, Digital Inclusion Ecosystems Ezezi Ogbo, North Carolina Central University, Patrice Walker, North Carolina Central University, Joel Cutcher-Gershenfeld, Brandeis University, Christopher Lawson	Pandemic Influences on Americans' Online Activities: A Spatial and Multivariate Analysis. Avijit Sarkar, University of Redlands and James Pick, University of Redlands	Market structure and performance in mobile markets. The Example of Europe. François Jeanjean, Orange and Julienne Liang, Orange	A Pandemic Silver-Lining: Remote Learning and Increased Intergenerational Technology Guidance Within Lower-Income Families. Bianca Reisdorf, University of North Carolina at Charlotte and Vikki Katz, Chapman University	Mind the Gap: Why 35 Million Eligible Households Haven't Signed Up for the Affordable Connectivity Program. Chris MCGovern, Connected Nation, Inc., Heather Gate, Connected Nation, Inc. and David Nunnally, Connected Nation, Inc.
2:05 - 2:35	Panel Sessions				
	Room Y400	Room Y116	Room Y401		
	Laying the Foundation for 6G	The Politics of Broadband Policy: The Infrastructure Investment and Jobs Act and the Battle for Digital Equity	Cybersecurity Governance: SBOM and the Shape of the Future		
4:00- 5:35	Social Dimensions to Communications and Internet Policy	Privacy and Data Protection	Antitrust and Competition Policy in Communications, Information, and Internet Markets	Spectrum Management and Wireless Policy	Broadband Deployment, Access and the Digital Divide
	Discussant	Discussant	Discussant	Discussant	Discussant

	Janice Hauge University of North Texas	Gus Hurwitz University of Pennsylvania	Erik Bohlin Ivey Business School		Marjory Blumenthal MSBlumenthal, LLC
4:01 – 4:31	The Social Rate of Return of Mobile broadband infrastructure Investment. Estefania Vergara Cobos, World Bank, Edward Oughton, George Mason University and Vivien Foster, King’s College London, Catalina Cantu, World Bank, and César Calderón, World Bank	An Examination of the Chilling Effect on Immigrants’ Freedom of Speech and Fourth Amendment Violations of Their Personal Networks Resulting from the Immigration and Customs Enforcement Surveillance Processes Ahmed Alrawi, Pennsylvania State University VIRTUAL	Does Competition from Cable Providers Spur the Deployment of Fiber? Andrew Kearns, Federal Trade Commission	Forecasting Wireless Broadband Capacity Shortfalls Paroma Sanyal, The Brattle Group, Coleman Bazelon, The Brattle Group, Ryan Taylor, The Brattle Group, Megan Sullivan, The Brattle Group, Shea Peretz, The Brattle Group, Peter Christensen, The Brattle Group, Natalie Selfe, The Brattle Group	A Comprehensive Framework to Monitor, Evaluate, and Guide Broadband and Digital Equity Policy Johannes Bauer, Michigan State University, Colin Rhinesmith, Digital Equity Research Center, Pierrette Dagg, MERIT Network, Greta Byrum, Benton Institute for Broadband & Society, and Aaron Schill, National Digital Inclusion Alliance
4:33 – 5:03	Understanding Affordable Connectivity Program Enrollment: Drivers of Uptake John Horrigan, Benton Institute for Broadband & Society, Brian Whitacre, Oklahoma State University, and Hernan Galperin, University of Southern California	Filtered Dragnets and the Anti-Authoritarian Fourth Amendment. Jane Bambauer, University of Florida	When is Regulation of Peering or Usage Fees Warranted? Ali Nikkhah, University of California, Irvine, and Scott Jordan, University of California, Irvine	Unassigned spectrum: An Institutional Analysis of Radio Spectrum Management Pedro Bustamante, Carnegie Mellon University, Marcela Gomez, University of Pittsburgh, Prashant Krishnamurthy, University of Pittsburgh, William Lehr, MIT, Iliia Murtazashvili, University of Pittsburgh, Ali Palida, University of Pittsburgh and Martin Weiss, University of Pittsburgh	An Estimation of the Potential for Television White Spaces to Close Connectivity Gaps at U.S. Public Libraries. Esther Showalter, University of California Santa Barbara, Kristen Rebmann, San Jose State University and Elizabeth Belding, University of California Santa Barbara
5:05 – 5:35	Platform Competition and Information Sharing Bertin Martens, Tilburg Law and Economics Center, Geoffrey Parker, Dartmouth College, Georgios Petropoulos, MIT and Stanford University, and Marshall Van Alstyne, Boston University	Mapping the Cyberstalking Landscape: An Empirical Analysis of Federal U.S. Crimes. Sasha Romanosky, RAND and Peter Schirmer, RAND	Standards Essential Patents under EU law: Some Reflections on the Recent WTO Case against China and the Role of the Newly Born EU Unified Patent Court Enrico Bonadio, City, University of London VIRTUAL	Braess’s Paradox in Wireless Broadband?: Toward a Principled Basis for Allocating Licensed and Unlicensed Spectrum. Christopher Yoo, University of Pennsylvania and Gerald Adams, University of Pennsylvania	My way or the Huawei?: Understanding the role of third-party states in weaponized interdependence via a study of the United Kingdom. Niahm Healey, University College London (Student Paper Award)
5:45 - 6:30	Poster Sessions See posters listed below				

Sessions Saturday September 23

9:00 - 10:40	Policy and Governance Implications of Emerging Technologies	Antitrust and Competition Policy in Communications, Information, and Internet Markets	Spectrum Management and Wireless Policy	ICT and Gender, Race, Ethnicity, Diversity	Policies Governing the Digital Economy
	Discussant Volker Stocker Weizenbaum Institute for the Networked Society	Discussant Robin Mansell London School of Economics	Discussant Peter Tenhula Silicon Flatirons	Discussant Hernan Galprin University of Southern California	Discussant Marcela Gomez University of Pittsburgh
9:01 – 9:31	Lessons from GDPR for AI Policymaking. Josephine Wolff, Tufts University, William Lehr, Massachusetts Institute of Technology, and Christopher Yoo, University of Pennsylvania	Regulatory Implications of Turning Internet Platforms into “Common Carriers” Lawrence Spiwak, Phoenix Center For Advanced Legal & Economic Public Policy Studies	Good and Bad Reasons for Licensed, Unlicensed, and Shared and Satellite Spectrum Joe Kane, ITIF and Jessica Dine, ITIF	Consumer Preferences, Perceptions, and Persistent Barriers: An Assessment of Internet Usage During and Post the COVID-19 Pandemic in Peru Diego Aguilar, Instituto de Estudios Peruanos, Aileen Agüero García, Instituto de Estudios Peruanos, Alexandra Soberón, Instituto de Estudios Peruanos, and Roxana Barrantes, Pontificia Universidad Católica del Perú/Instituto de Estudios Peruanos	Higher Education in the International Digital Economy: Effects of Conflicting Copyright Regimes on Cross-Border Teaching. Patricia Aufderheide, American University, Julia Ziskina, Library Futures and Kimberly Anastacio, American University
9:33 – 10:03	Edge Computing: digital infrastructure beyond broadband connectivity. William Lehr, MIT, Douglas Sicker, University of Colorado, Denver, Dipankar Raychaudhuri, Rutgers University, and Vivek Singh, Rutgers University	Welfare Cost of Mobile Spectrum (Mis)allocation Jean-Baptiste Guiffard, Paris-1 Panthéon-Sorbonne, Louise Aimène, Orange SA, Marc Ivaldi, Toulouse School of Economics and Julienne Liang, Orange SA	A Knowledge Graph Approach to Spectrum Explainability Cynthia Hood, Illinois Institute of Technology, Vaishali Nagpure, Illinois Institute of Technology, and Kenneth Zdunek, Illinois Institute of Technology	A global Geospatial assessment of the poverty-line unconnected population vulnerable to climate hazards. Bonface Osoro, George Mason University and Edward Oughton, George Mason University	Cybersecurity Risks of Changing Workplaces: A Global Survey of Shifts in Working from Home through the COVID-19 Pandemic Patricia Esteve-Gonzalez, University of Oxford, William Dutton, University of Oxford, Sadie Creese, University of Oxford, and Ioannis Agrafiotis, University of Oxford VIRTUAL
10:05 – 10:35	Towards a More Secure Technology Ecosystem: Implications for Cybersecurity Labels and SBOMs. Peter Caven, Indiana University and Jean Camp, Indiana University	Network Slicing and Net Neutrality Christopher Yoo, University of Pennsylvania	Evaluating the CBRS Experiment Randall Berry, Northwestern University, Thomas Hazlett, Clemson University, Michael Honig, Northwestern University and Nick Laneman, University of Notre Dame	AI and the datification of Social Service Delivery: ‘What Works’ and the discourse of Evidence Based Policymaking Asha Titus, London School of Economics and Political Science	National domain name arbitration regimes: Convergence or divergence? Ryan Wang, Penn State University, Sydned Forde, Penn State University, Ahmed Al Rawi, Penn State University and Krishna Jayakar, Penn State University
11:00 - 12:35	Cybersecurity Policy	Policy and Governance Implications of Emerging Technologies	Spectrum Management and Wireless Policy	Social Media Platform Policy and Regulation	Policies Governing the Digital Economy
	Discussant Marvin Sirbu Carnegie Mellon University	Discussant Carlos Ignacio Gutierrez Future of Life Institute	Discussant Sarah Oh Lam Technology Policy Institute	Discussant Dhanaraj Thakur Center for Democracy & Technology	Discussant Will Rinehart

11:01 -11:31	Non-governmental Governance of Trust on the Internet: The CA/Browser Forum Milton Mueller, Georgia Institute of Technology, Karl Grindal, University of New Hampshire, and Vagisha Srivastava, Georgia Institute of Technology	Artificial Intelligence on Indian Reservations in the United States: Prospects and Challenges Adam Crepelle, George Mason University, and Iliia Murtazashvili, University of Pittsburgh	Spectrum Needs of 6G Reza Arefi, Intel Corporation, Bishwarup Mondal, Intel Corporation, Victor Sergeev, Intel Corporation, and Seunghee Han, Intel Corporation	Prevalence-Based Gradation (PBG) Process to Tackle Misinformation and Disinformation on Social Media Kamesh Shekar, The Dialogue	Paving the Way for the Right to Research Platform Data Aline Iramina, University of Glasgow, Maayan Perel, Netanya Academic College, School of Law and Niva Elkin-Koren, Tel Aviv University VIRTUAL
11:33 – 12:03	Upgraded software and embedded improvements: A Puzzle of User Heterogeneity Shane Greenstein, Harvard Business School, Ran Zhuo, Harvard University and Raviv Murciano-Goroff, Boston University	Generative Artificial Intelligence and Copyright: Both Sides of the Black Box. Carol Hayes, University of Washington Information School	An Overview and Assessment of Today's U.S. Satellite Telemetry, Tracking and Telecommand (TT&C) Spectrum Allocation Needs Anargyros Kriezis, Stanford University/ Olin College and Whitney Lohmeyer, Olin College	Transparency for What Purpose?: Designing Outcomes-Focused Transparency Tactics For Digital Platforms. Yinuo Geng, CSIS and Georgetown University Law Center	Privatization, Competition and Best Practices for Telecom Sector Reform. Raul Katz, Columbia Institute for Tele-information, Michael Kende, International Finance Corporation, Carlo Maria Rossotto, International Finance Corporation, Juan Jung, Universidad Pontificia Comillas, and Julian McNeil, International Finance Corporation
12:05 – 12:35	Critical Shrinking: The Perils of Opaque and Undefined Critical Infrastructure Policy in American Telecommunications. Benjamin W. Cramer, Pennsylvania State University	Techno-Economic Analysis of the Shared Virtualized Resources in 5G small cells operating in Millimeter-wave Spectrum Bands Waleed Almarshedi, University of Colorado at Boulder, Kevin Gifford, University of Colorado at Boulder and Martin Weiss, University of Pittsburgh VIRTUAL	An Analytical Comparison of Geostationary (GSO) and Non-geostationary (NGSO) Satellite Filings Submitted to the Federal Communications Commission (FCC) Between 2012 to 2022. Phillip Post, Olin College of Engineering, Kaitlyn Fleming, Olin College of Engineering, Abigail Omer, Olin College of Engineering, Zayn Patel, Babson College, Devyn Oh, Olin College of Engineering, Mihir Vemuri, Olin College of Engineering and Whitney Lohmeyer, Olin College of Engineering	Social Media Platforms and the Quality of Content. Christiaan Hogendorn, Wesleyan University	On the Governance of Federated Platforms. Prashant Krishnamurthy, University of Pittsburgh, Iliia Murtazashvili, University of Pittsburgh, Balaji Palanisamy, University of Pittsburgh, Martin Weiss, University of Pittsburgh, Pedro Bustamante, Carnegie Mellon University, Marcela Gomez, University of Pittsburgh, and Michael Madison, University of Pittsburgh
2:00 - 3:30	Panel Sessions				
	Room	Room	Room		
	Will Artificial Intelligence Improve Competition?	The Economics of Privacy	Will the Multibillion Dollar Investment Finally Close the Digital Divide for Indigenous Communities?		
4:00- 5:35	Criticality of Broadband Infrastructure	Privacy	Spectrum Management and Wireless Policy	Broadband Deployment, Access and the Digital Divide	
	Discussant Rafi Goldberg NTIA	Discussant Jane Bambauer University of Florida	Discussant Randy Berry Northwestern University	Discussant David Reed University of Colorado Boulder	
4:01 – 4:31	Digital Haves and Have Nots: Why Universal Service and Digital Divide Policy Issues have persisted over the last 50 years, and will continue to do	Consumer Data and Privacy Fiduciaries: A Comparison Based on Balance of Power and Consumer Agency. Pooja Iyer, University of Texas at Austin	Learning and governance in spectrum auction design: lessons from a small island. Geoffrey Myers, London School of Economics and Political Science	State Grant Programs for Broadband: Implications for Federal Policy Design Natassia Bravo, Cornell University, and Mildred Warner, Cornell University	

	so. Prabir Neogi, Carleton University				
4:33 – 5:03	Economic rebalancing of the costs and benefits of Volumetric DDoS mitigation in the Internet: A Case Study of TCP. Samuel DeLaughter, MIT, Karen Sollins, MIT and William Lehr, MIT	Designing and deploying a platform to increase transparency and limit data collection by smart cities Gwen Shaffer, California State University Long Beach	Principles of Spectrum Sharing: A Case Study of the Lower 12 GHz Band Yong Paek, The Brattle Group, Paroma Sanyal, The Brattle Group, Coleman Bazelon, The Brattle Group, and Sarah Mather, The Brattle Group	Consumer-Driven Design and Evaluation of Broadband Labels. Christopher Choy, Carnegie Mellon University, Ellie Young, Carnegie Mellon University, Megan Li, Harvey Mudd College, Lorrie Cranor, Carnegie Mellon University and Jon Peha, Carnegie Mellon University	
5:05 – 5:35	The Influence of Digital Divide Frames on Legislative Passage and Partisan Sponsorship: A Content Analysis of U.S. Legislation since 1990 - 2020. Amy Gonzales, UC Santa Barbara	GDPR Codes of Conduct and the Impact on Global Business: a Case Study of Amazon Web Carl vander Maelen, Ghent University (Student Paper Award)	The role of bidding agreements in the US radio frequency auctions. Jakub Tecza, University of Florida	Broadband Makes US Better: Lessons from the Lone Star State Corian Zacher, Next Century Cities and Brian Donoghue, Next Century Cities	

Panel Descriptions

Friday, September 22, 2:05 pm Panels

The Politics of Broadband Policy: The Infrastructure Investment and Jobs Act and the Battle for Digital Equity

This panel, led by the Pennsylvania Broadband Research Institute, will explore how vanguard quantitative and qualitative research methodologies are currently being used to conduct multifaceted examinations of the IJJA broadband rollout. These research and documentation initiatives—grounded in a variety of methodological and epistemological approaches—will interrogate the battles over broadband mapping, funding, and ownership that have emerged in the wake of the IJJA.

Moderator:

Revati Presad, Director of Research and Fellowships at the Benton Institute for Broadband & Society

Panelists:

Christopher Ali - Donald P. Bellisario College of Communications, The Pennsylvania State University

Sascha D. Meinrath - Donald P. Bellisario College of Communications, The Pennsylvania State University – Founder of the X-Lab think tank, and Open Technology Institute (OTI)

David Elliot Berman – Annenberg School for Communication, The University of Pennsylvania

Sydney L. Forde – Donald P. Bellisario College of Communications, The Pennsylvania State University

Laying the Foundation for 6G

This panel will bring together interdisciplinary experts in the field of wireless communications, including policy, economics, and engineering, to discuss the latest developments and emerging trends in the next generation of communications technology. The panelists will share their insights on the future of wireless communications and how 6G technology will shape our digital world. They will explore the challenges and opportunities that come with the deployment of 6G networks and supporting emerging technologies, such as AI, quantum computing, blockchain, Web3, metaverse, and NFT.

Overall, the panel aims to generate discussion around key foundations needed for successful development, deployment, operations, and management of 6G communications. What are important lessons learned from previous generations of wireless communications that can help with 6G? What worked well? What improvements are needed?

Discussion topics may include open and virtual networks, security and privacy, sustainability, use cases, spectrum management and communications policy, international considerations, and societal and economic impacts.

Moderator:

Carolyn Kahn, MITRE

Panelists:

Eric Burger, Virginia Tech and Next G Alliance

Jennifer A. Manner, EchoStar

LtCol **Benjamin Pimentel**, USMC

Reza Arefi, Intel, retired

Cybersecurity Governance: SBOM and the Shape of the Future

This panel will focus on SBOM, describing the current policy processes, implications for economics of security within the large vulnerability ecosystem, integration with artificial intelligence and machine-learning systems, and finally potential impact on critical infrastructure. Each panelist will touch upon the global vulnerability ecosystem and SBOM environment, contrasting the adoption of SBOM in the United States, Japan, and Europe with the closed vulnerability reporting process adopted in China.

Allan Friedman will describe the state of SBOM. He will align SBOM with the core goals of the National Cybersecurity Strategy for policy that is defensible, resilient, and values-aligned. Allan Friedman is the Director of Cybersecurity Initiatives at National Telecommunications and Information Administration in the US Department of Commerce.

Jean Camp will address the vulnerability ecosystem in the United States and how the moving parts interact now and will interact with SBOM: Common Vulnerabilities and Exposure (CVE), Vulnerability Exploitability eXchange (VEX), the National Vulnerability Database (NVD), Common Security Advisory Framework (CSAF), Stakeholder-Specific Vulnerability Categorization (SSVC), and the EPSS, the Exploit Prediction Scoring System. Camp will then integrate these factors into the predictions and research from twenty years of economics of security research. Jean Camp is a Professor at the School of Informatics and Computing at Indiana University.

In closing, **Zach Tudor** will describe the interaction of SBOM with the critical infrastructure, with a particular focus on the energy sector. Zachary (Zach) Tudor is the associate laboratory director of Idaho National Laboratory's National and Homeland Security (N&HS) directorate. Tudor was previously a program director in the Computer Science Laboratory at SRI International, where he served as a management and technical resource for operational and research and development cybersecurity programs for government, intelligence and commercial projects.

Saturday, September 23, 2:00 pm Panels

Will Artificial Intelligence Improve Competition?

This panel will explore how AI may improve or hurt competition.

Christos Makridis will discuss how federal agencies, specifically the National AI Institute at the VA, is making federal data more available to researchers and firms. He will also talk about the way AI can be designed to complement labor, rather than simply replace it.

Aurelien Porteuse will discuss the political economy of institutions in the mix, focusing on the role of industrial policy in promoting targeted AI investments.

Neil Chilson will discuss the perspective of AI and competition from his perspective formerly as the chief technologist at the FTC.

Bledi Taska will discuss recent research they've been leading up at Lightcast using job posting data to learn more about the nature of competition in the labor market, and specifically related to AI job postings.

The Economics of Privacy

This panel will discuss the issues surrounding privacy from three angles – the economics of privacy, the legal framework, and regulatory issues. It will focus on a broad range of topics in the privacy arena, including international and US privacy laws and the patchwork of various state privacy regulations, recent data breaches and the nuanced problems with defining and measuring damages in privacy violations and measuring the value of personal data to consumers.

Moderator:

Paroma Sanyal, partner, The Brattle Group

Panelists:

Prof. **Jeff Prince**, Kelley School of Business, Indiana University

Branko Jovanovic, Partner, Edgeworth Economics

Michael Janson, FCC

Will the Multibillion Dollar Investment Finally Close the Digital Divide for Indigenous Communities?

The Biden Administration made an unprecedented investment of over \$5 billion geared exclusively toward tribal nations throughout the country. There is an additional \$43 billion available to tribes and a call on state and local governments to collaborate in ways that have never been done before. This funding comes by way of various agencies and programs.

We are just over a year into the initiative and the question remains, how effective will this level of funding be? Several Indigenous communities throughout the country remain among the most unconnected and additional barriers such as geography, historical exclusion, cultural competency, and internal capacity continue to present challenges for these communities to provide adequate broadband service. This multi-billion dollar investment has set the stage internationally for how countries are looking to close the digital divide in Indigenous communities. Its effectiveness could steer the approach for others to invest more heavily and more broadly into communities who continue to be the most marginalized in the connectivity space.

This panel will sit down with leading Indigenous experts who are tackling the problem on a local and national level, in real time. We will discuss some of the key implications of these funding programs and learn about how they are playing out on the ground. We will look some key questions: Is funding alone going to be enough? Can we anticipate a multi-billion investment to solve the problem, or is there more needed? How are communities responding to such a large-scale investment after being left out of the connectivity and technology space for so long? What are some of the key considerations policymakers must make along the way to ensure that this initiative is successful?

It is a critical moment to have this conversation, an opportunity to evaluate some of the key aspects of the program just over a year into their creation. As a panel, we will share with participants the key components of this administration's investment and what participants can expect to see continue to unfold in the coming years. We will look at policy and legislation that has emerged within tribal, state, and federal governments and how it is changing the landscape for generations to come. This area of exploration speaks more broadly to the post pandemic efforts by the federal government to prioritize racial equity, digital equity, and experimentation in communities. Their connectivity efforts are going to have to create their own digital roadmap and no longer following the traditional economic model of ISPs. We will look at the ways in which Indigenous communities, as well as others in rural areas, are tasked charging a new path forward in their digital age, propelled by unprecedented investment and recognition of the federal government.

Moderator:

Sharaya Lane, Internet Society

Panelists:

Ernie Rasmussen, Executive Director, Bigfoot Communications of the Colville Tribes

Joe Valandra, Tribal Ready

Danae Wilson, Office of Science and Technology Policy, Executive Office of the President

Adam Geilser, Tribal Ready

TPRC Keynote Speakers

Friday, September 22 Luncheon Speaker



Gigi Sohn is the Executive Director of the American Association of Public Broadband (AAPB), a Benton Institute Senior Fellow and Public Advocate and a Distinguished Fellow at the Georgetown Law Institute for Technology Law & Policy. She is one of the nation's leading public advocates for open, affordable and democratic communications networks. In recognition of her expertise and dedication to the public interest in communications, President Biden nominated her to serve on the Federal Communications Commission in October 2021.

From 2013 to 2016, Gigi was Counselor to the former Chairman of the Federal Communications Commission, Tom Wheeler. Singled out by Chairman Wheeler as "the conscience of the Chairman's office" for her tireless advocacy on behalf of American consumers and competition, the Daily Dot named Gigi one of the "Heroes Who Saved the Internet" in recognition of her role in the adoption of the FCC's 2015 Network Neutrality rules.

From 2001-2013, Gigi served as the Co-Founder and CEO of Public Knowledge, a leading communications and intellectual property policy advocacy organization serving the interests of consumers in Washington. She was previously a Project Specialist in the Ford Foundation's Media, Arts and Culture unit and Executive Director of the Media Access Project, the first public interest communications law firm.

Gigi has been the recipient of numerous awards and honors for her work. Most recently, in May 2023, the University of Pennsylvania Carey Law School's gave Gigi its Louis H. Pollak alumni award for a career advancing social justice through service in the public interest.

Gigi lives in Washington, DC with her wife Lara Ballard and their daughter Yosselin.

Friday, September 22 Dinner Speaker



Alan Davidson, Assistant Secretary for Communications and Information, NTIA, is an Internet policy expert with over 20 years of experience as an executive, public interest advocate, technologist, and attorney. He was most recently a Senior Advisor at the Mozilla Foundation, a global nonprofit that promotes openness, innovation, and participation on the Internet. He was previously Mozilla's Vice President of Global Policy, Trust and Security, where he led public policy and privacy teams promoting an open Internet and a healthy web. Alan served in the Obama-Biden Administration as the first Director of Digital Economy at the U.S. Department of Commerce. He started Google's public policy office in Washington, D.C., leading government relations and policy in North and South America for seven years until 2012.

TPRC 2023 September 22-23, 2023

August 24, 2023 - Program Subject to Change

Alan has been a long-time leader in the Internet nonprofit community, serving as Director of New America's Open Technology Institute where he worked to promote equitable broadband access and adoption. As Associate Director of the Center for Democracy and Technology, Alan was an advocate for civil liberties and human rights online in some of the earliest Internet policy debates. Alan currently resides with his family in Chevy Chase, Maryland. He is a graduate of the Massachusetts Institute of Technology and the Yale Law School, and is a member of the District of Columbia Bar.

Poster Session

Friday, September 22, 5:45 pm

Abusive Gatekeeping Practices in the iOS Mobile App Environment: a Walkthrough Analysis Along the Walls of our App Gardens [Juan Ortiz Freuler](#), University of Southern California

The Impact of FTTH deployment on the House Market in France **Jean-Baptiste Guiffard**, Paris-1 Panthéon-Sorbonne

Technical Retrospective on the Unlock the Box Debate, **Jason Livingood**, Comcast

Technical Retrospective of Title-II Reclassification & Associated Internet Technologies, **Jason Livingood**, Comcast

Misinformation Policy Modeling using a Machine-Learning Approach, **Xiaohua Awa Zhu**, University of Tennessee, Knoxville and **Shengnan Yang**, Indiana University Bloomington

A More Insecure Ecosystem? ChatGPT's Influence on Cybersecurity, **Peter Caven**, Indiana University

Accounting for Indeterminacy: The Trouble with Transparency(ies) in Data Protection Compliance Work **Rohan Grover**, USC Annenberg

Red is Sus: Automated Identification of Low Quality Service Availability Claims in the US National Broadband Map. **Syed Tauhidun Nabi**, Virginia Tech, **Miguel Alonso**, Virginia Tech and **Shaddi Hasan**, Virginia Tech