Compilation of Broadband2021 Workshop Participant Bios

Keith Adams has been Assistant Administrator for the Telecommunications Program in the U.S. Department of Agriculture's (USDA) Rural Utility Service (RUS) since July 2013. In this role he manages the Telecommunications Program's loan and grant programs, with an annual budget of almost \$1 billion and a \$4 billion loan portfolio. The Telecommunications Program was further expanded in 2009 under the American Recovery and Reinvestment Act, which authorized \$2.5 billion in budget authority for RUS to provide additional broadband funding through the Broadband Initiatives Program. Under Mr. Adams management, the program has awarded more than \$1 billion to date. As the Assistant Administrator for Telecommunications in the USDA Rural Utility Service, I lead in the furtherance of mission and program goals of expanding broadband services to under served rural communities through a diverse workforce ranging from managers, loan specialists, and engineers. The position requires close coordination with other Rural Development programs along with a focus towards economic development opportunities in rural America. Keith will be responsible for planning, directing, and coordinating with counterparts at the Department of Commerce's National Telecommunications and Information Administration (NTIA) which serves as the President's Advisor on Telecommunications, the White House's Office of Technology and Science (OSTP), the Federal Communications Commission (FCC) and other Federal, state and local authorities. Mr. Adams tenure with the U.S. Department of Agriculture (USDA) first began in 2001 as a Marketing Specialist with the Foreign Agricultural Service (FAS). His experience also includes time with the U.S. Postal Service, U.S. Small Business Administration and most recently with the U.S. Agency for International Development (USAID). Since 2006, Mr. Adams was the Division Chief in USAID's Office of Food for Peace providing overall leadership for the planning and integration of the day to day operations and budget of the Government's largest resource for food aid and food security assistance effectively working with both private volunteer and International organizations, and other government agencies in achievement of a program valued at over \$2 billion. Mr. Adams holds a Bachelor of Science Degree from Shepherd University, where he majored in Marketing and received his Master of Science (MS) degree from the University of Maryland in 1999. Keith is active in his community serving as Board of Director for his Homeowners Association and serving faithfully at his church. He resides in the suburban Washington DC Metropolitan area with his son.

Francine Alkissawani is a Telecommunications Policy Analyst with the National Telecommunications and Information Administration's (NTIA) BroadbandUSA initiative. During her tenure at NTIA she has been the evaluation specialist for NTIA's Technology Opportunities Program (TOP), a program officer for the TOP information and communications demonstration projects and the Broadband Opportunities Program. Currently she is working with the team assigned to develop a National Broadband Research Agenda as called for in the Broadband Opportunity Council report to the

President. Prior to NTIA, she served on the City of Philadelphia Mayor's Telecommunications Advisory Committee, the Pennsylvania Governor's Link-to-Learn Program Task Force, and was a senior evaluator with the U.S. General Accounting Office.

Johannes M. Bauer is a Professor in the Department of Media and Information at Michigan State University. Since January 2013 he also serves as the Department Chair. He is trained as an engineer and economist, holding MA and PhD degrees in economics from the Vienna University of Economics and Business Administration, Austria. His experience at MSU is complemented by extended stays as a visiting professor at the Technical University of Delft, Netherlands (2000-2001), the University of Konstanz, Germany (Summer 2010), and most recently the University of Zurich, Switzerland (2012). His research covers a wide range of issues related to innovation in information and communication technology industries (ICT), business models of national and global players, as well as the public policy and governance challenges of harnessing the full benefits of ICT for society. He also has developed and used computational methods to examine the effects of governance on advanced communications infrastructure and applied big data analytical methods to problems of information security. Dr. Bauer is a frequent speaker at international conferences and has served as an advisor to public and private sector organizations in North and South America, Europe, and Asia

Samantha Becker, MLIS, MPA, is the Principal Research Scientist for the TASCHA | U.S. Impact Study Research Group at the University of Washington Information School. Her research focuses on digital inclusion programs and policies, with an emphasis on community technology and public libraries. She was co-author of the first large-scale study of the impact of public access technology in public libraries, *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries* and also co-authored *Building Digital Communities A Framework for Action*, a tool to help assess communities and help them work towards becoming digitally inclusive. Her work is focused on helping the digital inclusion community leverage data to improve outcomes for people left behind by technology advancements and support excellence in programs that help bridge the digital divide. She is particularly interested in the adoption of common metrics and understanding barriers to effective use of technology.

Doug Brake is a telecommunications policy analyst at the Information Technology and Innovation Foundation. He specializes in broadband policy, wireless enforcement, and spectrum-sharing mechanisms. He previously served as a research assistant at the Silicon Flatirons Center at the University of Colorado, where he sought to improve policy surrounding wireless enforcement, interference limits, and gigabit network deployment. Prior to that, he served as a Hatfield scholar at the Federal Communications Commission, assisting with the implementation of the advanced communications services section of the 21st Century Communications and Video Accessibility Act. Brake holds a law degree from the University of Colorado Law School and a bachelor's degree in English literature

and philosophy from Macalester College. His research areas include broadband and wireless

Jack Brassil currently serves as a Program Director in the Division of Computer and Network Systems at the National Science Foundation in Arlington, Virginia, USA. His program responsibilities include the networking research core program (NeTS) and experimental networking and computing research infrastructure (e.g., GENI, US Ignite, NSFFutureCloud). Dr. Brassil has performed and managed computing and networking research for over 25 years, is a Senior Scholar in the Department of Computer Science at Princeton University (on leave), and is a Fellow of the IEEE.

Justin S. Brown is an assistant professor in the Zimmerman School of Advertising & Mass Communications at the University of South Florida, teaching courses in telecommunications, law and research methods. His research focuses on telecommunications law and policy issues including broadband deployment and new media. He has made numerous research presentations at conferences organized by the International Communications Association (ICA), American Educators in Journalism & Mass Communication (AEJMC), Broadcast Education Association (BEA) and the Telecommunication Policy Research Conference (TPRC). His research is represented in such publications as Cardozo Arts & Entertainment Law Journal, Communication Research, Communication Law & Policy, Federal Communications Law Journal, Cornell Journal of Law & Public Policy, IDEA: Intellectual Property Law Review, Journalism & Mass Communication Quarterly and info: The journal of policy, regulation and strategy for telecommunications, information and media. Justin is currently serving as the MCI Communications Congressional Fellow, working in the office of Sen. Brian Schatz (D-HI) to help support his role as ranking minority member of the Communications, Technology, Innovation and the Internet subcommittee. He earned his B.S. (Journalism) from the University of Oregon, and both his M.A. (Telecommunication Studies) and Ph.D. (Mass Communication) from Penn State University.

Jay Chen is a assistant professor of Computer Science at NYU Abu Dhabi and the Co-Director of the Design Technology Lab. His research is in the area of information and communication technologies for development (ICTD), a rich seam at the intersection of technical systems and social systems. His work focuses on 'incidental interventions', technology interventions that leverage people's existing behaviors or latent aspirations in order to encourage technology adoption in developing regions. He is a research assistant professor at the NYU Polytechnic School of Engineering and a member of the Center for Technology and Economic Development (CTED). B.S., B.A., M.S. University of California (San Diego); Ph.D. New York University.

David Clark is a Senior Research Scientist at the MIT Computer Science and Artificial Intelligence Laboratory, where he has worked since receiving his Ph.D. there in 1973. Since the mid 70s, Dr. Clark has been leading the development of the Internet; from

1981-1989 he acted as Chief Protocol Architect in this development, and chaired the Internet Activities Board. His current research looks at re-definition of the architectural underpinnings of the Internet, and the relation of technology and architecture to economic, societal and policy considerations. He is helping the U.S. National Science foundation organize their Future Internet Design program. He is past chairman of the Computer Science and Telecommunications Board of the National Academies, and has contributed to a number of studies on the societal and policy impact of computer communications. He is co-director of the MIT Communications Futures Program, a project for industry collaboration and coordination along the communications value chain.

Leah Davis is a Senior Research Associate with CDI. Leah's role at CDI is to lead completion of the Institute of Museum and Library Services (IMLS) funded research project Inclusive Gigabit Libraries, and lead additional research and community projects. In addition, she is a consultant serving as a lead evaluator to examine the economic and social impacts of the Broadband Technology Opportunities Program of the National Telecommunications and Information Administration, U.S. Department of Commerce. Leah is currently engaged in research analyzing information technology use and knowledge sharing among public sector organizations. Specifically, her research examines communication processes used to carry out federal disaster response policy in public management networks. Leah has served as a delegate with the National Academy of Public Administration in a consultation to improve e-governance services with the Ghana Public Services Commission in Accra, Ghana. She has assisted on several federally funded research projects and has presented her research at conferences in the U.S. and internationally. Leah received her Ph.D. from the School of Public and Environmental Affairs at Indiana University, where she studied policy analysis and public management. She completed a minor in Information Science from the School of Library and Information Science at Indiana University.

Tawanna Dillahunt is an Assistant Professor at the University of Michigan's School of Information (UMSI) and holds a courtesy appointment with the Electrical Engineering and Computer Science (EECS) department. Tawanna leads the Social Innovations Group at UMSI and her research interests lie at the intersection of human-computer interaction, ubiquitous computing, and social computing. She is primarily interested in identifying how theories from the social sciences can be used to design technologies that have a positive impact on group and individual behavior. With the narrowing of the digital divide, the ubiquity of smart devices and mobile hotspots in common places in the U.S. (e.g., libraries, community centers, and even McDonald's) she sees an urgent need to explore the use of these technologies for those that stand the most to gain from these resources. Therefore, she designs, builds, enhances and deploy innovative technologies that solve real-world problems, particularly in underserved communities. Dr. Dillahunt holds a M.S. and Ph.D. in Human-Computer Interaction from Carnegie Mellon University, a M.S. in Computer Science from the Oregon Graduate Institute School of

Science and Engineering (now a part of the Oregon Health and Science University in Portland, OR), and a B.S. in Computer Engineering from North Carolina State University. She was also a software engineer at Intel Corporation for several years.

William H. Dutton is the Quello Professor of Media and Information Policy in the Department of Media and Information, College of Communication Arts and Sciences at Michigan State University, where he is Director of the Quello Center. Prior to this appointment, Bill was Professor of Internet Studies at the Oxford Internet Institute, University of Oxford, where he was the Founding Director of the OII and a Fellow of Balliol College. Bill received a Lifetime Achievement Award for his role as Founding Director of the OII. He is also the recipient of the International Communication Association's (ICA) first Fred Williams' award for contributions to the study of communication and technology, the William F. Ogburn Lifetime Achievement Award from the Communication and Information Technologies Section of the American Sociological Association in 2014, and was named an ICA Fellow in 2015. Bill is presently a co-principal investigator in the UK FCO supported Global Cyber Security Capacity Project, and developing a set of projects on digital inequalities and their implications in Detroit, Michigan, and the United States.

Valerie Fast Horse has worked for the Coeur d'Alene Tribe as the Director of IT for the past 16 years. She has four programs within her Department: IT- Government Services, Geographic Information Systems (GIS), Red-Spectrum Communications (the Tribe's broadband provider), and KWIS 88.3 FM (the Tribe's radio station). In 2005 she successfully planned and implemented a \$2.8 million broadband grant to build a Tribal Community Technology Center and deploy a wireless ISP (Red-Spectrum) to bring broadband services to residents of the Coeur d'Alene Reservation for the first time. More recently in 2015 she completed a \$10.2 million fiber-to-the-home project that included construction of 121 route miles of fiber, 1 new wireless tower, and equipment upgrades to 5 existing towers & access points. Through these efforts the Tribe is able to reach over 3,000 homes with either fiber or wireless connections. Fast Horse is a former elected tribal leader and served six years as a Tribal Council member. In 2011 she was appointed to serve on the FCC-Native Nations Broadband Task Force. Also in 2011 she was selected as one of the 15 positive female role models nominated for changing the course of history in the state of Idaho and received the Idaho "Women Making History" award by the Boise State Women's Center.

Nick Feamster is a professor in the Computer Science Department at Princeton University and the Acting Director of the Princeton University Center for Information Technology Policy (CITP). Before joining the faculty at Princeton, he was a professor in the School of Computer Science at Georgia Tech. He received his Ph.D. in Computer science from MIT in 2005, and his S.B. and M.Eng. degrees in Electrical Engineering and Computer Science from MIT in 2000 and 2001, respectively. His research focuses on many aspects of computer networking and networked systems, with a focus on network

operations, network security, and censorship-resistant communication systems. In December 2008, he received the Presidential Early Career Award for Scientists and Engineers (PECASE) for his contributions to cybersecurity, notably spam filtering. His honors include the Technology Review 35 "Top Young Innovators Under 35" award, the ACM SIGCOMM Rising Star Award, a Sloan Research Fellowship, the NSF CAREER award, the IBM Faculty Fellowship, the IRTF Applied Networking Research Prize, and award papers at the SIGCOMM Internet Measurement Conference (measuring Web performance bottlenecks), SIGCOMM (network-level behavior of spammers), the NSDI conference (fault detection in router configuration), Usenix Security (circumventing web censorship using Infranet), and Usenix Security (web cookie analysis).

Kenneth Flamm is a Professor and holder of the Dean Rusk Chair at the LBJ School of Public Affairs at the University of Texas at Austin. He is an honors graduate of Stanford University and received a Ph.D. in economics from MIT. From 1993 to 1995, Dr. Flamm served as Principal Deputy Assistant Secretary of Defense for Economic Security and Special Assistant to the Deputy Secretary of Defense for Dual Use Technology Policy, and was awarded the Distinguished Public Service Medal by the Secretary of Defense for his work at DoD. Prior to, and after his service at the Defense Department, he spent eleven years as a Senior Fellow in the Foreign Policy Studies Program at the Brookings Institution. Dr. Flamm has been a professor of economics at the Instituto Tecnológico A. de México in Mexico City, the University of Massachusetts, and George Washington University. Flamm has been elected to membership in the Conference on Research on Income and Wealth, has served as vice-chair of the National Research Council's Panel on Comparative Innovation Policy, and as a member of its Science, Technology, and Economic Policy Board, its Committee on Assessing the Need for a Defense Stockpile, its assessment panel on the Small Business Innovation Research Program, its Committee on the Rationale and Goals of the U.S. Civil Space Program, its Committee on the Future of Supercomputing, and its Steering Group on Measuring and Sustaining the New Economy. He has served as member and Chair of the NATO Science Committee's Panel for Science and Technology Policy and Organization, and as a member of the Federal Networking Council Advisory Committee, the OECD's Expert Working Party on High Performance Computers and Communications, various advisory committees and study groups of the National Science Foundation, the Council on Foreign Relations, the Defense Science Board, and the U.S. Congress' Office of Technology Assessment, and as a consultant to various government agencies, international organizations, and private corporations. Dr. Flamm is the author of numerous articles and books on the dynamics of global competition in high technology industries, including studies of broadband adoption and diffusion, and the computer, semiconductor, Internet, and telecommunications industries.

Jon Gant is a national leader in the areas of digital inclusion and broadband adoption. Jon is currently a professor at the Graduate School of Library and Information Science at the University of Illinois at Urbana-Champaign where he serves as the founding Director

of the Center for Digital Inclusion (CDI). Under Jon's leadership, CDI examines the social and economic impact of information and communication technologies globally. Jon is the principal investigator for the Illinois Digital Innovation Leadership Program. This is a collaboration with University of Illinois Extension and the Champaign-Urbana Community Fab Lab to build local high tech hubs in Illinois based to support digital fabrication, digital media production and data analytics. CDI is currently developing new research on smart cities/communities and next-generation Internet applications to serve the public. Since 2009, Jon served as a director of Urbana-Champaign Big Broadband (UC2B), a University of Illinois-led intergovernmental consortium with the City of Urbana and City of Champaign operating an Internet service provider startup providing gigabit speed Internet access serving households, businesses and community anchor institutions in Urban-Champaign, IL. UC2B received a \$22 million Broadband Technology Opportunity Program grant to construct a 187-mile fiber-optic broadband network infrastructure. Jon served as director for business development and was responsible for designing and implementing an innovative data analytics approach for business development, network engineering and construction, and customer relationship management. Since the completion of the BTOP grant in 2014, UC2B is now a not-forprofit ISP. UC2B is partnering with ITV-3 to expand gigabit services, voice and video to households in Urbana-Champaign. Jon serves currently as the Chairperson of the UC2B Board of Directors . Jon served as a research director for the evaluation of the Department of Commerce's Broadband Technology Opportunity Program (BTOP) as a consultant with ASR Analytics. Jon collaborated with the evaluation team to develop the mixed method research design, train and mentor the research and data analytics team, lead site visits, conduct interviews, brief senior NTIA officials, analyze the social and economic impacts, and co-author the case studies and final reports. The Institute of Museum and Library Services, the Organization for Economic Coordination and Development, the International Telecommunication Union, the State of Illinois, Partnership for a Connected Illinois, the American Library Association, and the National Science Foundation, among others, have funded Jon's research. Jon received his M.S. and Ph.D. degrees from Heinz College at Carnegie Mellon University, where he studied public policy and information management. Jon earned his undergraduate degree from the University of Michigan.

Rafi Goldberg is a technology-centric policy analyst with experience in research, politics, and both federal and state government. He is currently a Telecommunications Policy Analyst at the National Telecommunications and Information Administration (NTIA), the Commerce Department agency that advises the President on Internet and communications policies. The broad scope of his work at NTIA includes examining data on computer and Internet use in the United States, as well as analyzing policy issues ranging from intellectual property to mobile device portability. Rafi has experience with a broad range of contemporary policy questions, including network neutrality, universal service, and competition issues. Rafi earned a Master of Public Policy degree at Georgetown University in 2011, with a concentration in environmental and regulatory

policy. For his master's thesis, "Broadband Use and Civic Engagement," Rafi analyzed survey data to find that broadband Internet use is a positive indicator of several forms of participation in civic life. Prior to attending graduate school, Rafi served in the Office of Massachusetts Governor Deval L. Patrick, where his primary task was vetting candidates for appointment to high-level Executive Branch positions. While at the Governor's Office, he led the development of a transparency-enhancing web site that details all seven hundred state boards and commissions to which the Governor makes appointments, and enables interested constituents to apply online for open positions. Rafi is a proud alumnus of Tufts University, from which he graduated in 2006 with a BA in Political Science. At Tufts, he successfully advocated for, and worked on the implementation of, a fund that awards stipends to students undertaking unpaid summer internships in public service.

Tony H. Grubesic is the College Professor of Policy Analytics at Arizona State University, where he is also Director of the Center for Spatial Reasoning & Policy Analytics. He has previously held academic appointments at Drexel University, Indiana University and the University of Cincinnati. Grubesic is editor of International Regional Science Review and associate editor for Telematics and Informatics. His research and teaching interests are in geographic information science, regional development and public policy evaluation. Author of over 120 research publications, his recent work focuses on spatial analytics and data uncertainty, neighborhood dynamics, telecommunications policy and air transportation systems. Grubesic obtained a B.A. in Political Science from Willamette University, a B.S. in Geography from the University of Wisconsin-Whitewater, a M.A. in Geography from the University of Akron, and a Ph.D. in Geographic Information Science from Ohio State University. His most recent book, *Broadband Telecommunications and Regional Development*, is now available from Routledge: https://www.routledge.com/products/9781138013919. For more details, see http://www.tonygrubesic.net

Karen Hanson is the Director of Partnerships and Interagency Affairs for BroadbandUSA with the National Telecommunications and Information Administration (NTIA) at the U.S. Department of Commerce. Karen is responsible for promoting partnerships with BroadbandUSA and coordinating NTIA's interagency efforts to promote broadband adoption and deployment. Karen also manages NTIA's work on the Broadband Opportunity Council (BOC), an interagency working group established by President Obama in 2015. Karen's background includes experience in the nonprofit, philanthropic, and private sectors. She graduated from Duke University with a B.A. in Public Policy Studies and has an MBA from the Marshall School of Business at the University of Southern California.

John B. Horrigan is a Senior Researcher at the Pew Research Center where he focuses on libraries, communities, and technology adoption. He rejoined the Pew Research Center in January 2015, having been with Pew before from 2000 to 2009. In 2009, he joined the leadership team at the Federal Communications Commission and he led

development of the broadband adoption and usage portion of the National Broadband Plan. He is a nationally recognized leader on home broadband adoption patterns, the impact of connectivity on individuals, and strategies for closing adoption gaps. At Pew, he has authored recent reports on broadband adoption and lifelong learning and technology. As a consultant, Horrigan is author of landmark reports on Comcast's Internet Essentials program. The reports, "The Essentials of Connectivity" and "Deepening Ties" demonstrate the impact of online access for low-income families with children and make recommendations on how to accelerate broadband adoption and usage. Horrigan has a Ph.D. in public policy from the University of Texas at Austin and his undergraduate degree from the University of Virginia.

Heather E. Hudson is Affiliate Professor of Communications Policy at the Institute of Social and Economic Research (ISER), University of Alaska, Anchorage. She was previously Director of ISER and founding Director of the Telecommunications Management and Policy Program at the University of San Francisco. Her research focuses on applications of information and communication technologies for socioeconomic development, regulatory issues, and policies and strategies to extend affordable access to communications, particularly in rural and developing regions. She has planned and evaluated communication projects in Alaska and northern Canada and more than 50 developing countries and emerging economies.Dr. Hudson is the author of numerous articles and several books and is the recipient of two Fulbright awards and a Sloan Industry Fellowship. She has consulted for international organizations, government agencies, the private sector, and consumer and indigenous organizations, and has testified before regulators in the U.S. and Canada. Her latest book is *Connecting Alaskans*: Telecommunications in Alaska from Telegraph to Broadband (University of Alaska Press, 2015). Her recent activities include research on Internet and broadband usage in indigenous communities in Alaska and northern Canada, testimony on behalf of First Nations communication organizations on broadband as a basic service in Canada, and particularly NTIA's FirstNet Public Safety Advisory Council.

Krishna Jayakar is an associate professor in the Department of Telecommunications, the co-Director of the Institute for Information Policy, and the Coordinator for the intercollege Information and Communication Technologies for Development (ICT4D) Consortium at Penn State University. He has published close to fifty journal articles and book chapters and made around a 100 peer-reviewed conference presentations and invited talks on telecommunications policy and media economics, specializing in universal access to telecommunications. He serves on the visiting faculty of two Chinese universities and as Visiting Professor at the School of International Affairs at Penn State. He is the Co-Editor of the *Journal of Information Policy* and serves on the board of editors of *The Information Society* journal. Dr. Jayakar's research has been supported by grants from the Pacific Telecommunications Council, Time Warner Cable, the Free Press Foundation, AT&T etc. He teaches course in telecommunications management and media economics. Before joining academics, Dr. Jayakar was a research officer in India's

Ministry of Information and Broadcasting, drafting research reports and position papers on media policy. Dr. Jayakar received his undergraduate degree in engineering from the Institute of Technology-BHU, India, and masters and PhD from Indiana University, Bloomington.

Calvin Johnson is a Deputy Assistant Secretary at the U.S. Department Housing and Urban Development (Policy Development and Research/Office of Research, Evaluation, and Monitoring [OREM]). OREM is responsible for conducting demonstrations, evaluations, and analyses across a variety of topics to include housing assistance programs, the intersection of housing and health, homelessness, community development, building technology, renewable energy, and disaster and community resiliency. Prior to joining HUD, he held the position of Associate Director for the Office of Research and Evaluation at the Court Services and Offender Supervision Agency for the District of Columbia where he was responsible for the predictive analytics in the areas of offender compliance and preventive interventions intended to mitigate identified social and behavioral risks. His other prior research experiences include positions held at the University of Pennsylvania, The Executive Office of the Mayor of the District of Columbia, and The Urban Institute where he was responsible for leading evaluations of crime control and prevention policy studies and place-based initiatives. He received his BA in Sociology from Eastern Washington University, his MA in Sociology from Temple University, and his PhD in Criminology and Criminal Justice from the University of Maryland at College Park.

Grace Kena is an Education Statistician at the National Center for Education Statistics (NCES) housed within the Institute of Education Sciences at the U.S. Department of Education. Grace works within the Annual Reports Program at NCES, where she effectively leads and provides analytic guidance and input for a number of complex and high-profile projects and efforts. Grace's knowledge of issues spans the education spectrum, ranging from early childhood to postsecondary education and beyond. She is currently the project lead for one of the Center's flagship reports, the Congressionally-mandated *Condition of Education* which is released annually. She also supports the NCES Commissioner on various special projects, including developing presentations and talking points, and providing input for both one-time and ongoing initiatives. Grace has a bachelor's degree from The University of Chicago in a concentration titled the history, philosophy, and social studies of science and medicine. She also has a master's degree in public policy from Duke University. Grace has particular interest in enhancing education outcomes for underprivileged and underserved youth and in using data to advance programmatic and policy efforts.

Tom Koutsky serves as Chief Policy Counsel for Connected Nation. Tom has published numerous articles on broadband policy, the economics of telecommunications networks, the effectiveness of public policy on broadband adoption, telecommunications competition policy, universal service, and network interconnection and access policies.

provides vision and leadership for Tom served at the Federal Communications Commission as a senior advisor on the team that wrote the first U.S. National Broadband Plan. For the Plan, Tom focused on policy recommendations related to federal, state, and local policies, network infrastructure, the law and economics of middle mile connectivity, wholesale competition rules, and policy and universal service and access charge reform. Prior to his involvement with the National Broadband Plan, Tom served as chair of the FCC's North American Numbering Council, and was a resident scholar for the Phoenix Center for Advanced Legal and Economic Public Policy Studies. Tom holds a juris doctorate from University of Chicago Law School and a bachelor of arts in political science from the University of Illinois.

William Lehr is a telecommunications/Internet industry economist and policy analyst with over twenty-five years of experience in academic research and industry consulting. He is currently a research scientist in the Computer Science and Artificial Intelligence Laboratory (CSAIL) at the Massachusetts Institute of Technology (MIT). Dr. Lehr's research focuses on the economic and policy implications of broadband Internet access, next generation Internet architecture, and the evolution of wireless technology. In addition to his academic research, Dr. Lehr regularly advises senior executives and policymakers in the U.S. and abroad on business strategy and policy matters of relevance to the communications and information technology industries. Dr. Lehr holds a PhD in Economics from Stanford, an MBA in Finance from the Wharton School, and MSE, BA, and BS degrees from the University of Pennsylvania.

Maureen Lewis joined the National Telecommunications and Information Administration (NTIA) as the Director of Minority Telecommunications Development in 2000. NTIA, an agency of the U. S. Department of Commerce, is the executive branch agency principally responsible for advising the President on telecommunications and information policy. In her role, Ms. Lewis develops and advocates policies to promote minority ownership of media and telecommunications enterprises and affordable access to information technology. She is also a member of NTIA's domestic policy team that researches computer and Internet use for the agency's "Exploring the Digital Nation" reports. An alumna of Georgetown University Law Center and Spelman College, Ms. Lewis began her legal career as an antitrust attorney at the Federal Trade Commission and then as an advisor to a commissioner. She next served as senior counsel for Howard University and then as general counsel for a non-profit advocacy organization urging ubiquitous, affordable broadband access throughout the nation. Ms. Lewis is a member of the District of Columbia and of the United States Supreme Court.

Mark Lloyd is a professor of communication at the USC-Annenberg School of Journalism and Communication. Lloyd's academic career includes two years as a visiting scholar at MIT, where he conducted research into the communications ecology of Cambridge, MA. Lloyd has also taught at the Georgetown University Public Policy Institute, and lectured at Harvard, UCLA, Penn State and other institutions in the U.S.

and abroad. From 2009- 2012 he served as an associate general counsel at the Federal Communications Commission, where he helped design and promote research to inform the national broadband plan and the report on the critical information needs of the public. Previously, Lloyd has been the General Counsel of the Benton Foundation. Before becoming a communications lawyer, Lloyd was an Emmy Award-winning broadcast journalist, including work at NBC and CNN. He is a graduate of the University of Michigan-Ann Arbor, and the Georgetown University Law Center.

Carleen Maitand is co-Director of the Institute for Information Policy and Associate Professor in the College of Information Sciences and Technology at Penn State University, USA. Her expertise includes analyses of information and communication technology (ICT) use in international organizations, particularly those involved in fostering economic and social development as well as humanitarian relief. Her work has been carried out in the U.S., Europe, Africa and the Middle East, while working with several UN organizations, Save the Children, and the U.S. State Department, just to name a few. Current projects include analyses of ICT use by and for refugees with the UN Refugee Agency (UNHCR) as well as the potential of white space technologies to extend service to rural populations in Native American communities. Outcomes from her work, including over 100 refereed publications and presentations have appeared in outlets such as the Journal of Information Technology, The Information Society, Telecommunications Policy, and Information Systems Frontiers. Her research has been supported by the National Science Foundation, the European Commission, the U.S. Department of Commerce, and IBM, among others. She received a Ph.D. in the Economics of Infrastructures from Delft University of Technology, the Netherlands, in 2001 as well as undergraduate and graduate degrees in engineering from Worcester Polytechnic Institute and Stanford University. Also, from 2010-2012 she served as a Program Manager in the U.S. National Science Foundation, both in the Office of International Science and Engineering and the Office of Cyberinfrastructure.

Keith Marzullo is the Director of the Federal Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO). He also serves as the Co-chair of the NITRD Subcommittee of the National Science and Technology Council (NSTC) Committee on Technology (CoT), where he oversees the operations and activities of the NITRD Program. The NCO reports to the Office of Science and Technology Policy (OSTP), Executive Office of the President. Dr. Marzullo joins NITRD NCO from the National Science Foundation (NSF), where he served as the Division Director for the Computer and Network Systems (CNS) Division in the Computer & Information Science & Engineering (CISE) Directorate. He also served as Co-Chair of the NITRD Cybersecurity and Cyber Physical Systems R&D Senior Steering Groups. Prior to joining NSF, Dr. Marzullo was a faculty member at the University of California, San Diego's Computer Science and Engineering Department, and served as the Department Chair from 2006-2010. Dr. Marzullo received his Ph.D. in Electrical Engineering from Stanford University, where he developed the Xerox Research Internet

Clock Synchronization protocol, one of the first practical fault-tolerant protocols for keeping widely-distributed clocks synchronized with each other.

Grant Miller has worked for 18 years as the coordinator of Large Scale Networking (LSN) and High End Computing (HEC) at the National Coordination Office (NCO) supporting the NITRD Subcommittee of the National Science and Technology Council (NSTC). The LSN develops common approaches across the Federal agencies for R&D plans for advanced networking programs and testbeds. Grant coordinates the Joint Engineering Team of the LSN which provides connectivity and performance of research and development networks, network testbeds, and prototypes of new networking technology. Mr. Miller coordinates the Middleware and Grid Interagency Coordination (MAGIC) Team that provides grid and cloud networking environments to support science R&D research and it facilitates the development of common approaches to Identity Management for science cooperation in cloud and grid environments. Mr. Miller coordinates the JET Big Data demonstrations that provide demonstrations of leading edge networking technology for big data applications at the annual Supercomputing Conference. Miller is the coordinator for the Federal agency Smart Cities Task Force that is promoting development and use of broadband and wireless technologies for Smart Cities.

Helena Mitchell is a *Regents' Researcher*, the highest status bestowed by the Board of Regents, which governs the University System of Georgia. In tandem, Dr. Mitchell is Executive Director of the Center for Advanced Communications Policy at the Georgia Institute of Technology. Since 2001 she has been the Principal Investigator for the Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC) funded to research, evaluate and develop innovative wireless technologies and products that promote equitable access. Her areas of expertise include broadband and wireless communications, emergency/public safety communications, spectrum management, regulatory policy, and universal service to vulnerable populations. Dr. Mitchell has held senior positions at the Federal Communications Commission (FCC), where she was Associate Chief, Strategic Communications for the Office of Engineering and Technology and earlier was chief of the Emergency Broadcast System, and the first chief of the Emergency Alert System (EAS). Helena previously headed the telecommunications development programs for the National Telecommunications and Information Administration (NTIA), of the U.S. Department of Commerce. Helena has and continues to serve on a wide variety of community, industry and academic advisory councils and boards.

Traci Morris is the Director of Arizona State University's American Indian Policy Institute and a member of the Chickasaw nation of Oklahoma. Her work and research focuses on the digital divide (or divides), digital inclusion, internet use, and development of broadband in Indian Country and she has advocated for digital inclusion at the Federal Communications Commission and on Capitol Hill. Morris has worked with Native

American Tribes, tribal businesses, native American non profits, native media makers, and artists and galleries.

Karen Mossberger is Professor and Director of the School of Public Affairs at Arizona State University. Her research interests include digital inequality, broadband evaluation, e-government, and urban policy. With Caroline Tolbert of the University of Iowa, she was part of a National Science Foundation grant to estimate Internet (including broadband) use for states, cities, metros and counties from 1997-2012 using the Current Population Survey. The team also created estimates for the 2013 and 2014 American Community Survey for Internet use by race, ethnicity, education, employment, and other factors. The data is available at ASU at https://policyinformatics.asu.edu/broadband- data-portal/home. Using neighborhood-level estimates from 3 citywide surveys, Mossberger and colleagues conducted a multi-year evaluation of the Smart Communities BTOP program that found significantly higher increases in Internet use in the 9 low and moderate-income Chicago neighborhoods participating in the program, compared to other Chicago community areas. She is also co-editing a book on the evaluation of policy impacts of broadband, as a result of a national research roundtable held at the MacArthur Foundation. Recent projects include collaboration with Traci Morris and Nicholet Deschines to examine urban and rural differences in Internet use for American Indians and Alaska Natives. Her co-authored books include Digital Cities: The Internet and the Geography of Opportunity (Mossberger, Tolbert, and Franko 2013, Oxford University Press), Digital Citizenship: The Internet, Society and Participation (Mossberger, Tolbert and McNeal 2008, MIT Press) and Virtual Inequality: Beyond the Digital Divide (Mossberger, Tolbert and Stansbury 2003, Georgetown University Press). Her work on Internet use has been supported by the National Science Foundation, U.S. Department of Housing and Urban Development, John D. and Catherine T. MacArthur Foundation, Smith Richardson Foundation, and Partnership for a Connected Illinois, among others. She was the 2014-2015 President of the Information Technology and Politics section of the American Political Science Association.

Jon Peha is a Professor at Carnegie Mellon University who has addressed information networks in industry, government, and academia. In government, he served at the Federal Communications Commission as Chief Technologist, in the White House as Assistant Director of the Office of Science & Technology Policy, in the House Energy & Commerce Committee, and at USAID where he helped launch and lead a US Government interagency program to assist developing countries with information infrastructure. In industry, he has been Chief Technical Officer for three high-tech companies, and a member of technical staff at SRI International, AT&T Bell Laboratories, and Microsoft. At Carnegie Mellon, he is a Professor in the Dept. of Engineering & Public Policy and the Dept. of Electrical & Computer Engineering, and former Associate Director of the university's Center for Wireless & Broadband Networking. His research spans technical and policy issues of information networks. Dr. Peha holds a PhD in electrical engineering from Stanford, and a BS from Brown. He is

an *IEEE Fellow* and an *AAAS Fellow*, and was selected by AAAS as one of 40 "Featured AAAS Science and Technology Policy Fellows" of the last 40 years ("40@40"). Dr. Peha has received the FCC's "Excellence in Engineering Award," the IEEE Communications Society TCCN Publication Award for career contributions, and the Brown Engineering Medal.

Stephanie Carroll Rainie (Ahtna Athabascan) is Assistant Research Professor, Udall Center for Studies in Public Policy; Associate Director and Manager, Tribal Health Program for the Native Nations Institute (NNI) in the Udall Center for Studies in Public Policy; Assistant Professor in the Public Health Policy and Management Program at the Community, Environment and Policy Department (CEP), Mel and Enid Zuckerman College of Public Health (MEZCOPH); and Assistant Director for the Center for Indigenous Environmental Health Research (CIEHR) at the University of Arizona (UA). Stephanie's research explores the links between governance, health care, the environment, and community wellness. She collaborates with a community of tribal leaders and program staff, researchers, and students at the UA's NNI and CIEHR, and elsewhere. She is the co-founder of the US Indigenous Data Sovereignty Network, a founding member of the International Indigenous Data Sovereignty Network, and on the faculty advisory board for the University of Arizona's Center for Digital Society and Data Studies. She received her AB from Cornell University and MPH and DrPH from the University of Arizona.

David Reed is currently Director of the Interdisciplinary Telecom Program at the University of Colorado Boulder. He also is a Senior Fellow, Silicon Flatirons Center for Law, Technology, and Entrepreneurship at the CU Law School. Dr. Reed's research interests include telecommunications technology, policy, and economics: Applying interdisciplinary research methods to examine the evolution of telecommunications infrastructure to advanced wireless and broadband platforms and the resulting implications on business strategy or public policy objectives. Dr. Reed was the Chief Technology Officer and Chief Strategy Officer at Cable Television Laboratories where he led R&D projects covering a wide range of technologies relevant to the cable industry such as application platforms, business services, voice-over-IP, and broadband delivery systems. Dr. Reed also has been a Telecommunications Policy Analyst in the Office of Plans and Policy at the Federal Communications Commission where he worked on cable-telco competition, personal communications services (PCS), and spectrum auction policies.

Robert Rhoads is a Branch Chief within the U.S. Department of Homeland Security's Office of Emergency Communications (OEC). Mr. Rhoads is responsible for supporting OEC in its mission to accelerate and attain operable and interoperable emergency communications among public safety agencies and across Federal, State, local and tribal governments nationwide. The Partnerships Branch, which Mr. Rhoads leads, provides support to SAFECOM, the National Council of Statewide Interoperable Coordinators

(NCSWIC), the Emergency Communications Preparedness Center, (ECPC) the National Public Safety Telecommunications Council (NPSTC). These groups focus on improving emergency communications capabilities and work to inform and provide recommendations to all disciplines across all levels of government. Throughout his career at DHS, Mr. Rhoads has served on committees and working groups representing DHS, including the most recent FCC Task Force on Optimization of PSAP Architecture, the NPSTC Assessment of Future Spectrum and Technology, the FCC Technical Advisory Board for First Responder Interoperability, and the NPSTC Broadband High Level Launch Requirements. Prior to serving in DHS, Mr. Rhoads served nearly 30 years Fairfax County, Virginia Fire and Rescue Department before retiring as a Battalion Fire Chief in 2008. He has also worked as an engineer in the private sector. His achievements as an engineer include requirements development, integrating, testing, and demonstrating public safety systems and applications.

Steve Rosenberg has been the Chief Data Officer for the Wireline Competition Bureau at the Federal Communications Commission since the spring of 2010. His focus is on improving the collection, analysis and dissemination of data to inform policy-making in the bureau. Steve first joined the FCC in July, 2009 as part of the team working to create the National Broadband Plan, where he worked to quantify broadband availability and the costs associated with providing universal broadband access. Prior to joining the Commission, Steve worked in the telecom practice at McKinsey & Company before working at The Advisory Board, serving not-for-profits in the healthcare and education sectors. He earned a Ph.D. in Physics from UCLA in 1999.

Leila Samy leads the U.S. Department of Health and Human Services' (HHS) White House Rural Council initiatives addressing top challenges facing health care organizations serving rural communities and Veterans, including financing, broadband and workforce challenges. Ms Samy builds coalitions with leaders from state and local governments, academia, as well as practitioners and vendors in the health care, technology and telecommunications industries to expand access to financing and adoption of technology by rural health care providers. A trusted transformer, Ms. Samy has been with HHS since 2007, building public/private coalitions, launching pilot projects and scaling successful models across the US.

Harmeet Sawhney is Professor in the Media School at Indiana University, Bloomington. His research interests focus on how telecommunications networks are envisioned and created. His research articles appear in *Telecommunications Policy; Journal of Broadcasting & Electronic Media; Media, Culture, & Society; Info; Prometheus; Culture, Theory & Critique; Entrepreneurship & Regional Development; Popular Communication; Communication Monographs; Annual Review of Information Science & Technology; Science Technology & Society; The Information Society and book chapters in edited volumes. He has been visiting faculty at University of Michigan, National University of Singapore, London School of Economics, and Stanhope Center for*

Communications Policy Research, London. He is currently serving as the Editor-in-Chief of *The Information Society*.

Jorge Reina Schement serves as Vice Chancellor, Rutgers University New Brunswick. He is Distinguished Professor of Communication Policy, and author of over 250 books, papers, and articles. A Latino from South Texas, his research focuses on the social and policy implications of the production and consumption of information, especially as they relate to ethnic minorities. He conducted the first study of the impact of minority ownership in broadcasting, and conducted the original research that led to recognition of the Digital Divide. His studies of minority ownership contributed to the Supreme Court's decision in *Metro Broadcasting, Inc. v. F.C.C. et al.* He authored the telecommunications policy agenda for the Congressional Hispanic Caucus. He is a founding member of the FCC Federal Advisory Committee on Diversity in the Digital Age, and a member of the FCC Transition Team for the Obama administration.

Marvin Sirbu is Professor of Engineering and Public Policy, Industrial Administration, and Electrical and Computer Engineering at Carnegie Mellon University, and founder of Carnegie Mellon's Information Networking Institute. Professor Sirbu's interests are in telecommunications and information technology, policy and management. Recent research has focused on local broadband access competition; economic impacts of broadband; future Internet architecture; network neutrality; and spectrum policy. Professor Sirbu received S.B., S.M. and ScD degrees from MIT. Prior to moving to CMU in 1985, Professor Sirbu taught at MIT's Sloan School of Management, and directed its Research Program in Communications Policy. He has served on the FCC Technological Advisory Committee, numerous panels for the U.S. National Research Council and the Office of Technology Assessment, and on the boards of several telecom related corporations. He holds two patents in the area of electronic commerce.

Darrell Smith is a Program Lead for the Emergency Communications Preparedness Center (ECPC) for the Department of Homeland Security (DHS) Office of Emergency Communications (OEC). In this role, he coordinates information sharing with Federal government stakeholders regarding emergency communications and interoperability issues which affect policy and operations at all levels of the Federal government. He is also the designated co-chair of the Accelerating Broadband Infrastructure Deployment Working Group, as established by Executive Order 13616. As the co-chair, he coordinates with Federal departments and agencies to develop and implement a strategy to facilitate the timely and efficient deployment of broadband facilities on Federal lands, buildings, rights of way, and federally assisted highways. Prior to joining OEC, Mr. Smith was with the Department of the Treasury's Wireless Management Office, overseeing the implementation of a commercial wireless services acquisition effort, and was acting branch chief of the Department of State's Radio Program Office. Before entering the Federal Government, he was enlisted in the U.S. Army as a radio repair specialist in the Signal Corps.

Sharon Strover is the Philip G. Warner Regents Professor in Communication and former Chair of the Radio-TV-Film Department at the University of Texas where she now directs the Technology and Information Policy Institute. Her recent research projects examine policy responses to the digital divide, internationally as well as domestically; the economic benefits of broadband, particularly in rural areas; the role of libraries in local information environments; and the use of various digital media devices and platforms. She also directs an international Digital Media program as part of a broader collaboration effort between the University of Texas at Austin and the government of Portugal, a multi-year project that includes developing doctoral programs in digital media and sponsoring research in immersive technologies. Dr. Strover has worked with several international, national and regional government agencies and nonprofits on communications policy issues, including the U.S. Department of Agriculture's Rural Utilities Service, the Center for Rural Strategies, the Benton Foundation, the Center for Rural Strategies, the European Union, The Appalachian Regional Commission, the Rural Policy Institute, the Ford Foundation, and the European Union.

Erica Swanson is Head of Community Impact Investments & Programs at Google Fiber. She leads the team responsible for developing and delivering a range of social impact investments and community engagement strategies in Google Fiber cities. A key area of focus is partnering with local leaders to advance digital equity. Before joining Fiber, Erica directed Google's partnerships with national advocacy organizations, in support of public policies that advance a free and open Internet. She came to Google from The Leadership Conference on Civil and Human Rights, where she led coalition outreach efforts on issues ranging from voting rights to media justice. Her earlier work spans all levels of American federalism: working for a U.S. Senator; with a bipartisan network of state legislators; for a county-level political party; and as a grassroots organizer. Erica's M.A. is in public policy and women's studies from The George Washington University.

Sandeep Taxali serves as a senior policy analyst and broadband development officer at NTIA. He played an integral role in starting up the BTOP program, and led a team to review over \$1 billion in infrastructure funding requests for middle- and last-mile networks. He has managed a portfolio of 18 grants representing over \$600 million in capital funding. As part of NTIA's emerging BroadbandUSA effort, Sandeep provides technical assistance to communities and key stakeholders seeking to develop public private partnerships. Prior to NTIA, he directed C-Level sponsored strategy engagements in the telecommunications sector while at a management consulting firm. His work involved the development of comprehensive business cases and go-to-market strategies for corporate investments spanning up to \$2 billion. He had spent over three years at the FCC as part of a rotational analyst program sponsored by Chairman Reed Hundt's office, and led the market and economic assessment for a variety of proceedings at the Wireless and International Bureaus, including the Comsat Non-Dominance Order. He also served as a speechwriter at the FCC, and contributed to Vice President Al Gore's speech at the

International Telecommunications Union Plenipotentiary Conference. He is a CPA, and also holds a MBA and MPP.

Richard D. Taylor, since August 2015, has been Distinguished Professor in Residence in the College of Social Sciences at the University of Hawai'i at Mānoa. He is co-Editor-in-Chief of the Journal of Information Policy and co-Director Emeritus of the Penn State Institute for Information Policy. He is Palmer Chair Professor of Telecommunications Studies and Law Emeritus at Penn State. He is former President and Chairman of the Board of the Pacific Telecommunications Council, and a former member of the Board of TPRC. Prior going to Penn State in 1989 he was V.P.-Corporate Counsel at Warner Cable Communications. He holds a law degree from New York University School of Law and a doctorate from Columbia University. He is a member of the American Bar Association, the New York State Bar Association and the Federal Communications Bar Association.

Emy Tseng is currently a Senior Broadband Program Specialist with National Telecommunications and Information Administration (NTIA). Her policy and technical assistance work focuses on furthering broadband adoption and digital inclusion in communities throughout the U.S. Formerly as a Federal Program Officer, she oversaw a Broadband Technology Opportunities Program (BTOP) \$114M grant portfolio of Public Computing Centers (PCC) and Sustainable Broadband Adoption (SBA) projects working mainly with urban local governments and K-12 technology and education programs. Tseng is also an Affiliate at the Berkman Center for Internet and Society at Harvard University. Her work at the Center focuses on Inclusive Innovation - how marginalized communities adopt, shape and create technology in ways that reflect community needs and values. She leads the Inclusive Innovation Working Group and curates the Inclusive Innovation talk series as part of Berkman's lunchtime public talks and webcasts. Prior to NTIA, Emy worked for the City and County of San Francisco as the Project Director of the San Francisco Digital Inclusion Program - a citywide initiative to promote broadband adoption and digital literacy in the City's disadvantaged communities. In that capacity, she was appointed to serve on the first California Broadband Task Force. Previously, Emy was the Senior Policy Advisor at Zerodivide.org, Managing Director of Innovation Funders Network, a Council of Foundations affinity group, and a Program Associate at the Ford Foundation on communications policy. At Massachusetts Institute of Technology (MIT), she conducted research on broadband policy, open access, municipal networking and Fiber to the Home (FTTH). She previously worked in the software industry as an engineer, project manager and software architect. Emy has a Masters of Science degree in Technology and Policy (TPP) from MIT, and a Bachelor of Science degree in Math/Physics from Brown University.

Nicol Turner-Lee is Vice President and Chief Research and Policy Officer for the Multicultural Media, Telecom and Internet Council (MMTC), a 30-year old minority media advocacy organization, where she is responsible for designing and implementing

its research and policy agenda. She architects the policy and research agenda and works with civil rights, government, corporations and other stakeholders to strategize and operationalize MMTC's work. Before joining MMTC, she was President and CEO of the National Association for Multi-ethnicity in Communications (NAMIC), a national membership association that educates, advocates and empowers for multi-ethnic diversity in the communications industry through pipeline development, hiring and retention. Prior to NAMIC, Dr. Turner-Lee was Vice President and the first Director of the Media and Technology Institute for the Joint Center for Political and Economic Studies, one of the nation's leading research and public policy institutions whose work focuses on issues of concern to African Americans and other people of color. At the Joint Center, Dr. Turner-Lee created the first "National Minority Broadband Adoption Study" that was cited in the Federal Communications Commission's congressionally mandated National Broadband Plan as well as a subsequent report detailing the information needs of communities. Dr. Turner-Lee was recently appointed to the U.S. State Department's Advisory Committee on International Communications and Information Policy (ACICIP) by Ambassador Daniel A. Sepulveda. She also serves on the Apple ConnectEd Advisory Board and is a Visiting Researcher at the Center for Gender Equity in STEM for Women and Girls at Arizona State University. In 2011, Dr. Turner-Lee was appointed to the Federal Advisory Committee on Diversity in the Digital Age by former FCC Chairman Julius Genachowski. Last year, Dr. Turner-Lee was given the Lifetime Achievement Award for leadership in media and technology by the Rainbow PUSH Coalition and she received the Partner in Service Award from the Sigma Rho fraternity. Prior to this, she has been honored by the Alliance for Women in Media as one of their 60 most inspiring women in media, by CableFax as one of the Most Influential Minorities in Cable and one of the Most Powerful Women in Cable, by MMTC for its Extraordinary Service Award, by Multichannel News as one of their "Women to Watch," and other organizations for her extraordinary service. She has also been selected twice by Time Warner Cable as one of four participants in their signature Digital Research Program. Her other recent recognitions have come from the National Organization of Black Elected Legislative (NOBEL) Women, and the National Coalition of 100 Black Women-Northern VA Chapter. Dr. Turner-Lee is actively engaged on local and national boards and advisory committees. She is Secretary for TPRC (a national research collaborative focused on information policy), the Chairwoman for the Rainbow PUSH Coalition's Public Policy Institute and STEM4US, a Washington-based non-profit working to accelerate diversity in the fields of science, technology, engineering and math. She also sits on the Board of Directors for the Washington Literacy Center that works to end adult illiteracy in the DC area. Dr. Turner-Lee is also the author of several publications with two forthcoming on lifeline program reform and zero ratings. She is also a sought out speaker and panelist on media, telecommunications and high tech industries. She graduated with honors from Colgate University, has a doctorate in Sociology from Northwestern University and a Certificate in Nonprofit Management from the University of Illinois-Chicago. She is the proud mother of Keith and Chloe and serves as Secretary of her son's local Boy Scouts troop.

Kristene Unsworth is an assistant professor in the College of Computing and Informatics at Drexel University in Philadelphia. She is also an affiliated faculty member in Drexel's Science, Technology, and Society program and the Center for Public Policy. Her work focuses on information policy and ethics in relation to civil society and government.

Morgan Vigil is a Ph.D. candidate in the department of computer science at UC Santa Barbara. Her research has focused on designing network systems for challenged environments and her dissertation work specifically addresses issues of Internet accessibility in Indian Country. She serves as a member on the board of directors at American Indian Health & Services in Santa Barbara, a non-profit community health clinic that serves the American Indian population in Santa Barbara, Santa Ynez, and Ventura counties. She is committed to interdisciplinary research that brings a network scientific approach to technical innovation, policy reformation, and community-centric solutions.

Scott Wallsten is an economist with expertise in industrial organization and public policy. His research focuses on telecommunications, regulation, competition, and technology policy. His research has been published in numerous academic journals and his commentaries have appeared in newspapers and news magazines around the world. He holds a Ph.D. in economics from Stanford University. He is vice president for research and a senior fellow at the Technology Policy Institute and a senior policy scholar at the Georgetown Center for Business and Public Policy. He was the economics director for the FCC's National Broadband Plan and has been a lecturer in Stanford University's public policy program, director of communications policy studies and senior fellow at the Progress & Freedom Foundation, a senior fellow at the AEI – Brookings Joint Center for Regulatory Studies and a resident scholar at the American Enterprise Institute, an economist at The World Bank, a scholar at the Stanford Institute for Economic Policy Research, and a staff economist at the U.S. President's Council of Economic Advisers.

Nancy Weiss serves as General Counsel of the U.S. Institute of Museum and Library Services (IMLS) and a member of the Senior Executive Service. IMLS's mission is to promote museum, library, and information services to meet the information, education, research, social, and economic needs of the nation. IMLS supports the 35,000 museums and 123,000 libraries within the United States through research, policy development, and programs of financial assistance. Nancy is also Secretary to the National Museum and Library Services Board, a presidentially-appointed policy advisory board. She has played a key role in drafting international instruments pertaining to copyright and digital content, cultural activity and expression, human rights, and information policy. As Senior Advisor to the Chief Technology Officer of the United States, at the White House Office of Science and Technology Policy, she has helped develop and implement intellectual property and innovation policy. Prior to joining IMLS, Nancy served as Deputy General

Counsel of the National Endowment for the Humanities, where she also provided counsel to the Arts and Artifacts Indemnity Program (which helps defray the costs associated with international museum exhibitions) and represented the agency on the National Archives Trust Fund Board. Earlier in her career, she practiced litigation and media law at Williams and Connolly in Washington D.C., held a legal research fellowship in New Delhi, India, and held a federal judicial clerkship with the Hon. William W Schwarzer (N.D. California and Director of the Federal Judicial Center). Nancy graduated with honors from the University of Michigan Law School, and phi beta kappa with a degree in Economics from the Wharton School of the University of Pennsylvania. She has been admitted to the bars of California and the District of Columbia.

Jenifer Sunrise Winter is an Associate Professor in the School of Communications at the University of Hawai'i at Mānoa and an affiliate of the Hawaii Research Center for Futures Studies. Dr. Winter's research focuses on communication rights in network societies – in particular digital inequalities, algorithmic discrimination, and privacy in the context of big data and the Internet of Things. She also focuses on broadband development's role in improving the quality of life and enabling self-determination in indigenous communities, exploring the potential for community-initiated broadband projects that will strengthen community input in the planning and management of broadband networks and services. Related research addresses broadband access rights, community informatics, and the Internet as a support for democratic institutions and publics. She has recently co-edited *The Future Internet: Alternative Visions* (Springer) and has authored dozens of journal articles, book chapters, and conference papers addressing emerging policy issues related to the Internet. She is a four-time attendee of the National Science Foundation's WISE Institute, Team for Research in Ubiquitous Secure Technology.

Lynette (Kvasny) Yarger is an Associate Professor in the College of Information Sciences and Technology. She earned her Ph.D. in Computer Information Systems from the Robinson College of Business at Georgia State University. Her research focuses on how and why historically underserved groups use information and communication technologies. She has designed, implemented and assessed community computing projects in economically challenged neighborhoods in Atlanta, West Philadelphia, and Harrisburg. She is also a co-founder of MyHealthImpactNetwork, a social network platform that focuses on health and social media interventions for African American collegians. Her current research examines the performance of racial and gender identities in the construction of health information by African American teens and young adults, and the IT career pathways of African American males. Her research has been published in the *Journal of the American Medical Informatics Association, The Information Society, Information Systems Journal*, the *Journal of Computer Mediated Communication*, and *New Media and Society*. Dr. Yarger's research has been supported by the National Science Foundation (including the prestigious NSF Career Award), the

Oracle Help Us Help Foundation, AmeriCorps VISTA, the Penn State Africana Research Center, and the Penn State Children, Youth and Family Consortium.

Mariya Zheleva is an assistant professor in the Department of Computer Science at University at Albany SUNY. Prior to joining the tenure-track faculty in 2016, she was a visiting assistant professor at the University. She completed her PhD in Computer Science at University of California Santa Barbara in 2014. Mariya's research interest is in the intersection of wireless networks and Information and Communication Technology for Development. She has done work on small local cellular networks, Dynamic Spectrum Access, spectrum management and sensing and network performance and characterization. Her work was published in top-tier conferences, interdisciplinary journals and featured in popular media. Mariya is currently serving on the organizing committee of DySPAN2017 and on the technical program committees of ICTD, ACM DEV and WWW.