Dupont Summit 2018
Panel

Bridging Digital, Knowledge, and North-South Divides

This panel will examine various contexts for and approaches to bridging Digital, Knowledge, and North-South Divides. Such divides present critical expressions of relative inequalities, inequities, and disparities in information and knowledge creation, access, opportunities, usage, and benefits between and among individuals, groups, and geographic areas. Considered relative to questions of wellbeing defined by socio-cultural dynamics and material capacities, different perspectives on digital asymmetries and related effects will be explored in terms of the evolving socio-technological landscape and of disparities grounded in broader socio-historical dynamics, relationships, and structures that constrain the achievement of human flourishing. To that end, employing an overall Science of Broadening Participation approach, the panel will address policy implications and questions based on such issues as inequalities in access to education and digital literacy, scientific mobility, smart technologies and automation, labour market structures and relations, and diversity within and across different types and levels of socio-technological engagement and impact.

Organizer
      Connie L. McNeely, George Mason University

Moderator
      Ester Sztein, National Academy of Sciences (U.S.)

Panelists
      •Laurie A. Schintler, George Mason University
      "The Automation Divide"

      •Gerrit-Jan Knaap, University of Maryland
      "Using Smart Cities Technology to Improve the Lives of Disadvantaged Inner-City
          Residents"

      •Cassidy R. Sugimoto, National Science Foundation (U.S.)
      "Global Science Indicators: Examining Mobility and Scientific Leadership with
          Bibliometrics"

      •Erik W. Kuiler, George Mason University
      "Bridging Digital and Knowledge Divides in the World Polity: Contexts and
          Perspectives"

Bridging Digital, Knowledge, and North-South Divides

Panel Participants: *Biographical Statements*

Gerrit-Jan Knaap, University of Maryland
Gerrit-Jan Knaap, Ph.D., is Professor of Urban Studies and Planning and Executive Director of the National Center for Smart Growth Research and Education at the University of Maryland. Knaap earned his B.S. from Willamette University, his M.S. and Ph.D. from the University of Oregon, and received post-doctoral training at the University of Wisconsin-Madison, all in economics.
Knaap's research interests include the interactions between housing markets and policy, the economics and politics of land use planning, the efficacy of economic development instruments, and the impacts of environmental policy. On these subjects, Knaap has authored or coauthored over 65 articles in peer refereed journals, and coauthored or co-edited nine books. He received the Chester Rapkin Award for the best paper published in Volume 10 of the *Journal of Planning Education and Research*, with Greg Lindsey, he received the 1998 Best of Association of Collegiate Schools of Planning Award, and in 2006 he received the Outstanding Planner Award from the Maryland Chapter of the American Planning Association.
Funding for his research has been provided by the National Science Foundation, the Lincoln Institute of Land Policy, the Town Creek Foundation, and numerous other federal, state, and local government agencies. He currently serves on the State of Maryland's Smart Growth Subcabinet, Sustainable Growth Commission, Governor's Scientific Advisory Panel, and the Mitigation and Science workgroups of the Climate Commission.

Erik W. Kuiler, George Mason University
Erik W. Kuiler, Ph.D., is an Informatics Subject Matter Expert, working on the application of information technologies in the healthcare domain. He is an independent consultant and has an affiliation as a Senior Policy Fellow at George Mason University. Spending most of his career as an Information Engineer, he has focused on the development of lexicons, ontologies, and systems to support the management of data and information as enterprise assets. To date, he has developed various systems, ranging from a logistics-information exchange system for the United States Coast Guard to support the cutter fleet to an ontology-based prototype to classify tobacco products in an effort to support policy development and regulation enforcement. Dr. Kuiler's formal education includes concentrations in software and information engineering, rhetoric and information theory, medieval studies and comparative literatures, and public policy. He has published broadly on big data analytics, development economics, and policy analysis and has made presentations on such topics in various national and international workshops and conferences.

Connie L. McNeely, George Mason University
Connie L. McNeely, Ph.D., is a sociologist and Professor of Public Policy at George Mason University, where she is also the Co-Director of the Center for Science, Technology, and Innovation Policy. Her teaching and research address various aspects of science, technology, and innovation, healthcare, organizational behavior, public policy, governance, social theory, and culture. Dr. McNeely directs major projects on big data analytics, on scientific networks, and on migration and diversity in the science and technology workforce. Emphasizing comparative and historical perspectives, her work also has engaged questions on international development and organization and on issues related to race, ethnicity, nation, and gender. She has conducted research on education and socio-legal relations and has ongoing projects examining institutional and cultural dynamics in matters of globalization and polity participation. Dr. McNeely has numerous publications and is active in several professional associations,

serves as a reviewer and evaluator in a variety of programs and venues, and sits on several advisory boards and committees. Dr. McNeely earned the B.A. (A.B.) in Sociology from the University of Pennsylvania and the M.A. (A.M.) and Ph.D. in Sociology from Stanford University.

Laurie A. Schintler, George Mason University

Laurie A. Schintler, Ph.D., is an Associate Professor in the Schar School of Policy and Government at George Mason University, where she also serves as Director for Data and Technology Research Initiatives in the Center for Regional Analysis and Director of the Transportation, Policy, Operations, and Logistics (TPOL) master's degree program. Dr. Schintler received her Ph.D. degree in Regional and Urban Planning from the University of Illinois, Champaign-Urbana. Her primary areas of expertise and research foci include big data, emerging technologies, transportation, critical infrastructure, and quantitative methods. She has numerous peer-reviewed publications, reports, and conference proceedings, and co-edited volumes, including *Big Data for Regional Science* (Routledge) and the *Encyclopedia of Big Data* (Springer-Nature). Dr. Schintler has been a Principal Investigator or Co-Principal Investigator on various grants and contracts (from the US Department of Transportation, US National Park Service, US Department of Homeland Security, National Institutes of Health, among others). She is Area Editor for the *Journal of Networks and Spatial Economics*, Associate Editor for the *Asia-Pacific Journal of Regional Science*, Associate Editor for the *Annals of Regional Science*, and a Councilor-at-Large for the Regional Science Association International (RSAI) (2017-19). Dr. Schintler is a founding member of the Regional Science Academy, co-founder of the geospatial intelligence company FortiusOne (GeoIQ) (acquired by ESRI), and holder of a US Patent.

Cassidy R. Sugimoto, National Science Foundation (U.S.), Indiana University Bloomington

Cassidy R. Sugimoto, Ph.D., is the Director for the Science of Science and Innovation Policy program at the U.S. National Science Foundation. She is on leave from Indiana University Bloomington, where she is Associate Professor of Informatics in the School of Information, Computer Science, and Engineering. She has written extensively in the domain of scientometrics and scholarly communication, co-authoring more than 100 articles and conference papers and editing several books. Her most recent book (with coauthor Vincent Lariviere), *Measuring Research: What Everyone Needs to Know*, provides an introduction to scientometrics for a broad audience. Her research has been funded by the National Science Foundation, the Institute for Museum and Library Services, and the Sloan Foundation. She is President of the International Society for Scientometrics and Informetrics.

Ester Sztein, National Academy of Sciences (U.S.)

Ester Sztein, Ph.D., is the Assistant Director of the Board on International Scientific Organizations of the U.S. National Academy of Sciences. Among other programs, she manages four U.S. National Committees for the geosciences and the U.S. National Committee for psychology. She participates actively in the geoscience community and works with U.S. and international professional societies and organizations in projects such as fellowships for early career scientists, teaching symposia, geoscience and climate change outreach, and medical geology. As a research scientist, she pioneered the study of hormone metabolism in land plants within an evolutionary context and has collaborated as an editor with the Biometeorology Institute (Bologna, Italy). She has taught plant biology at the University of Maryland and the University of Buenos Aires. As a nonprofit officer, she collaborated on conservation and educational projects in Latin America and Africa. Dr. Sztein is councilor for the International Medical Geology Association and is involved in various International Council for Science programs. She earned her Ph.D. in Plant Biology from the University of Maryland.