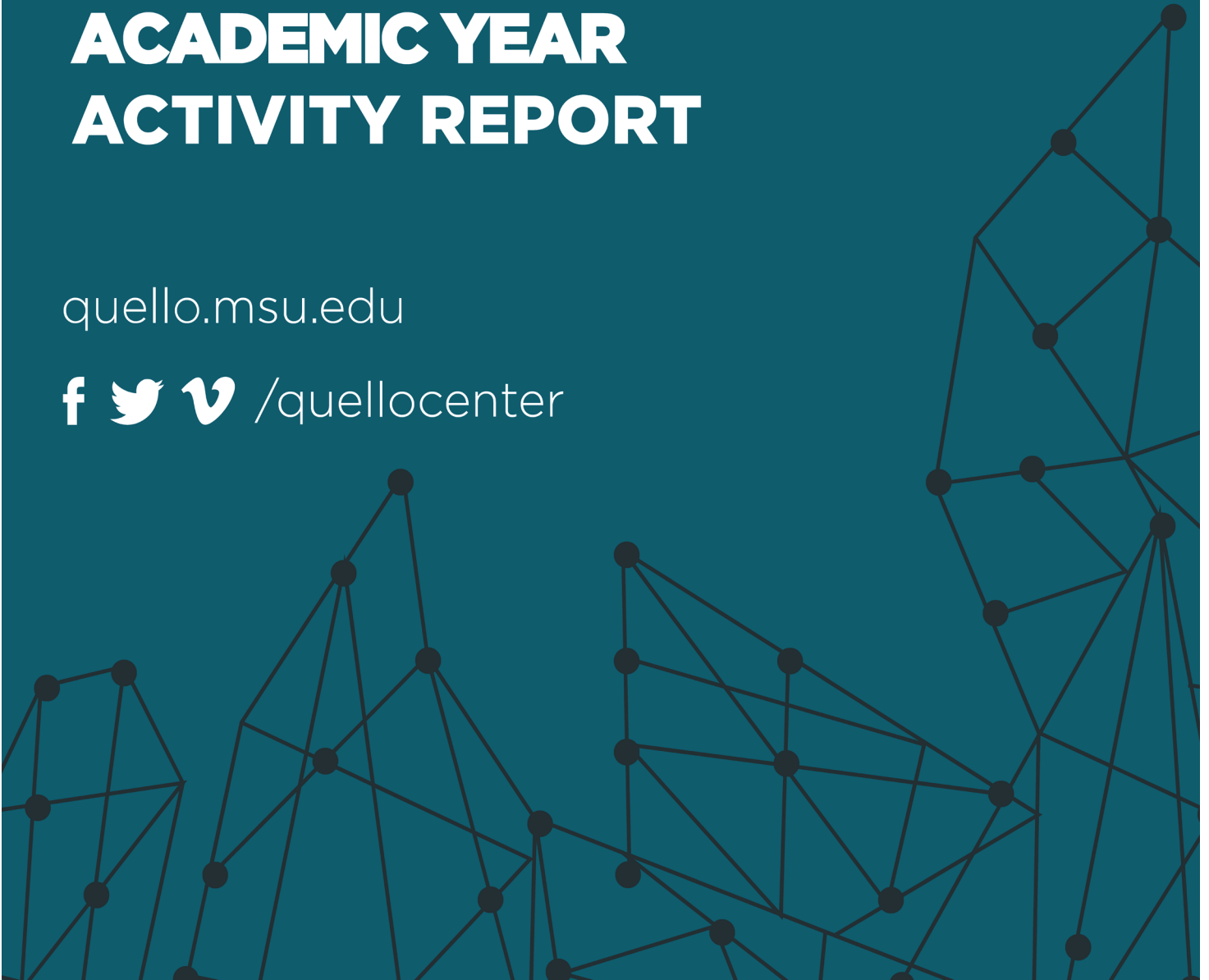# quello center

## MEDIA & INFORMATION POLICY

# 2018-2019
# ACADEMIC YEAR
# ACTIVITY REPORT

quello.msu.edu

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# Mission

The James H. and Mary B. Quello Center, founded in 1998, is among the top five U.S. academic centers working in the area of communication, media and information policy. It serves as a non-partisan research and outreach center with the goal to stimulate and inform public debate. Our work critically examines the role of technology, policy and regulation for citizens, communities, and society. The Center is affiliated with the Department of Media and Information and the College of Communication Arts and Sciences at Michigan State University.

# Research Programs

| | | |
|---|---|---|
|  | **ICTs & Society** | Projects critically examine the effects of ICTs on society, pressing issues faced by citizens, and how these issues translate to societal changes. We analyze the role of social media on political opinions and viewpoints or on tolerance. |
|  | **Digital Inequalities** | Several projects focus on broadband access and quality, digital skills and barriers to use, across rural and urban communities, to inform decisions aimed at narrowing digital divides. |
|  | **5G & Innovation** | Projects address principles of sound 5G policy that will help harness the tremendous potential of next-generation wireless innovation for business, government, and society. |
|  | **Digital Futures** | Work in this area contributes to the development of appropriate policy responses to current and emerging challenges, including digital platform power, privacy, surveillance, data ethics, and the governance of AI. |
|  | **Internet Governance** | Research projects in this program currently focus on behavioral and economic aspects of cybersecurity (e.g., ideologically motivated attackers), network neutrality, and foundations of Internet governance. |
|  | **Cybersecurity** | Together with researchers in computer science and criminal justice we explore the economic, legal, behavioral, technical and policy aspects of cybersecurity, cybercrime, and cyberterrorism. |

# Leadership Team

**Director,** Johannes M. Bauer

**Director of Academic Research,** Keith N. Hampton

**Assistant Director,** Laleah Fernandez

# Quello Center Advisory Board

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## EXECUTIVE SUMMARY

During the past academic year, Center affiliated researchers carried out a pilot study on rural broadband connectivity and its effects on educational outcomes (often referred to as the "homework gap"), developed and submitted five grant proposals (one funded, four under review), presented 17 papers at academic and professional conferences, shared findings of ongoing work at several practitioner workshops, and published 20 articles and book chapters. Our program of public talks and policy roundtable discussions contributed to a discussion of important media and communication policy issues and enriched student and faculty life at MSU.

Much of our time and energy was dedicated to the homework gap pilot project in partnership with Merit Network. We started field work in three mostly rural Intermediate School Districts late in the spring of 2019. The three-pronged research design combines survey data with broadband speed test data and student standardized test scores. Participating schools serve as data trustees, assuring that our research team only has access to completely de-identified data. Compared to prior work, this novel approach allows much more granular and nuanced insights into the linkages between broadband access and home, school achievement, and other outcomes that affect individual and community life. First insights were presented at the Michigan Broadband Summit in September, at the Great Lakes Connect Conference, and at the 9th Annual Conference of the Schools, Health & Libraries Broadband (SHLB) Coalition in October. We were able to obtain grant funding for part of the work and plan to pursue additional funding opportunities in the future to expand the research.

The team continues to publish work developed from grant and contract-supported research. In total, more than a dozen presentations were given to academic and professional audiences and more than a dozen peer-reviewed articles and book chapters were published. For example, analysis of data from the Detroit Broadband to the Neighborhood project led to one accepted publication in the journal of *Information, Communication and Society*, and a second paper under review for the *Social Science Computer Review.* Assistant Director, Laleah Fernandez also presented our work at the *47th Research Conference on Communications, Information, and Internet Policy* (TPRC) and a Martin Luther King Day public forum hosted by the University of Michigan Detroit Center.

We continue to reach national and international practitioners through our applied research and presentations. Director Johannes M. Bauer conducted workshop sessions at the PURC/World Bank International Regulators Training Program at the University of Florida, Gainesville; the cetic.br conference in São Paolo, Brazil, and at the Annual Regulatory Studies Program at Michigan State University. Moreover, we co-organized a one-day conference on social media governance on Friday, May 24, 2019, in Washington, D.C., held prior to the annual meeting of the International Communications Association (ICA). This workshop was co-organized with the Institute for Information Policy at Penn State.

Since our last update the Quello Center has hosted several featured talks, including: Laura DeNardis from American University; Jeffrey Boase from the University of Toronto, and Kentaro Toyama from the University of Michigan. In addition, we have hosted and co-sponsored a number of roundtable discussions to enrich the intellectual culture in our academic programs, including prominent thought leaders and media practitioners, such as: Cliff Lampe from the School of Information, University of Michigan; Glenn Leshner from the University of Oklahoma; Nicolas Friederici, from the Oxford Internet Institute and the Humboldt Institute of Internet and Society; and Isabelle Dabadie from the University of Paris II Panthéon-Assas.

# 1. SPEAKER SERIES AND POLICY DISCUSSIONS

One of our missions is to stimulate discussion of important and controversial issues. Depending on the topic and the speaker, we conduct some discussions following Chatham House rules, record others for time-delayed release in our video archive (quello.msu.edu/tag/video), or stream them live to a national and global audience (streamed talks are also placed in our video archive). Center and co-sponsored talks and events since the last advisory board meeting include:

- Glenn Leshner, University of Oklahoma (2019, October). Communication Regulatory Science: Optimizing Hookah Tobacco Public Education Messages to Reduce Young Adult Use. Information and Media Ph.D. Speaker Series presented at Michigan State University.

- Cliff Lampe, University of Michigan School of Information (2019, September). Citizen Interaction Design and Its Implications for HCI. Information and Media Ph.D. Speaker Series presented at the Michigan State University.

- Nicolas Friederici (presenter), Michel Wahome and Mark Graham, Oxford Internet Institute (2019, May). Digital Entrepreneurship in Africa: How a Continent Is Escaping from Silicon Valley's Long Shadow. Roundtable discussion, Michigan State University.

- Alwin Mahler, Adjunct Professor, Michigan State University and Google Europe (2019, May), Diffusion of Digital Innovation: Digital Transformation of Industries and National Agenda Setting.

- Isabelle Dabadie, University of Paris II Panthéon-Assas (2019, April). Collaborative Consumption: Opportunities for Social Innovation. Quello Center Roundtable Discussion presented at the Michigan State University. Michigan State University.

## 1.2 Quello Center Featured Speakers

The following featured talks are live streamed to reach a broader audience. Steamed talks are available on our website and Vimeo channel. These talks include

- Kentaro Toyama, University of Michigan School of Information (2019, September). Where is Digital Technology's Ralph Nader? Quello Center Featured Speaker presented at Michigan State University. https://livestream.com/wkar/191003-quello-kentaro

- Jeffrey Boase, University of Toronto (2019, April). Network Complexity and Mobile Texting:  A Triangulation of Digital Trace, Survey, and Interview Data. Quello Center Featured Speaker presented at the Michigan State University. Michigan State University. http://quello.msu.edu/jeffrey-boase-network-complexity-mobile-texting/

- Laura DeNardis, American University (2019, March). The Internet in Everything: Emerging Frontiers of Cyber Policy. Quello Center Featured Speaker presented at the Michigan State University. Michigan State University. http://quello.msu.edu/laura-denardis-the-internet-in-everything-video/

- Jeffrey Lane, Rutgers University (2019, February). The Digital Street. Quello Center Featured Speaker presented at the Michigan State University. Michigan State University. http://quello.msu.edu/jeffrey-lane-the-digital-street/

## 2. ONGOING PROJECTS

## 2.1. Homework Gap: Pilot Study of Three Michigan School Districts

In the first few months of 2019, the Center, in partnership with Merit Network, launched the pilot phase of a project entitled *Citizen-Enabled Advances in Broadband Availability Data* (aka Michigan Moonshot Project, https://www.merit.edu/services/moonshot/). Merit Network, founded by Michigan State University and the University of Michigan, is a non-profit member-governed organization providing Internet access to over 700 connections to Michigan's community anchor, government, and non-profit institutions. This collaborative project aims to measure access, speed and utility of Broadband across the State of Michigan by leveraging crowd-sourced data. This study utilizes a combination of technical metrics available from the Internet and survey data collected using a web-based application.

In the pilot phase of this project, the Quello Center seeks to better understand the impact and magnitude of the Homework Gap in Michigan. Without broadband at home, students are at a higher risk of falling behind, aggravating inequality and reducing opportunities in life. Seventy percent of teachers assign homework requiring access to broadband. Thirty percent of school districts in the U.S. have technology as part of their curriculum. Yet, one out of three students do not have Internet at home and are caught in this "Homework Gap." Students leave school and cannot do homework, research projects or collaborate with teachers or classmates online. Students who do not have Internet at home may have less success at school, have lower grades, enjoy school less, experience lower self-esteem, have less interest in STEM related careers, and have less interest and opportunity to attend post-secondary education.

The data for this project consists of three databases linked by a unique de-identified participant ID. (1) A paper survey completed by nearly 4,000 students age 13 and older across 19 Michigan schools, covering 15 mostly rural school districts. (2) Student records (i.e., M-STEP scores) that are de-identified and (3) Results of an Internet speed test that students complete on a website using any device they use to complete homework.

The paper surveys were completed at school and those who have Internet access outside of school were asked to visit a website and complete an Internet speed test using any device they use for homework. The speed test records information on the quality and speed of their Internet connection. Students entered their de-identified participant ID when completing the speed test. The speed test website is operated by a partner institution, Merit Networks. The results of the speed test are linked to data from the paper survey and student records. The project was awarded supplemental funding from the Institute of Public Policy and Social Research. The project has been widely publicized and preliminary findings presented at venues such as the Michigan Broadband Summit and the Annual Conference of the Schools, Health & Libraries Broadband.

## 2.2. Crowdsourcing of Improved Broadband Data

The Homework Gap Project described above serves as the pilot for a scaled-up effort to use a similar methodology in order to reach populations beyond Michigan middle and high school students. Broadband is of increasing significance to all consumers, government policy, economic development, scholarly research, community access, and education. Measuring broadband availability is critical to its successful provision. This collaborative project with Merit Network, Ann Arbor, aims at the development of a best-practice method and tools to collect more granular information on the availability and uses of broadband. Project presentations at several conferences generated strong interest and buy-in by stakeholders in the K-12 community and among anchor institutions, such as libraries. A focus group in Ann Arbor in December with representatives from across the state solidified and focused the direction. Pilots with a few selected communities was launched in May of 2019.

Considering that any source of data will have strengths and weaknesses, strategically using multiple sources of data can advance the quality of data to inform decision making. Specifically, data sources, such as FCC Form 477, can be analyzed in conjunction with new consumer-sourced data to improve the accuracy of broadband availability data and enable us to identify areas where access or speed appears to be under- or over-estimated. Our approach has the potential to be scaled up and sustained with the guidance and oversight of a National Advisory Group that will include federal agency representatives, industry, and current data source representatives. The Quello Center is now seeking funding for this initiative.

Our comments, submitted to NTIA in July, 2018, in collaboration with the Merit Network, argues that current problems with the accuracy of broadband data can be resolved by implementing a consumer-sourcing mechanism for collecting individual level data. By combining and augmenting data sets, the weaknesses of any single data set can be mitigated. Making these combined data sets open and publicly available will enhance their utility and reliability. The value and feasibility of this data collection is enhanced by enlisting the help of regional and national networks that include educators, academics and information technology practitioners, advocates, and consumers. This project has been approved by the Michigan State University IRB. We are currently seeking funding through sources such as the National Science Foundation (NSF) and Microsoft.

See our comment here:

Quello Center and Merit Network (2018, July). 'Citizen Enabled Advances in Broadband Availability Data.' Submitted July, 16, 2018 to U.S. Department of Commerce National Telecommunications and Information Administration (NTIA), Docket No. 180427421–8421–01 RIN 0660–XC042. Available at: https://www.ntia.doc.gov/files/ntia/publications/quello_merit_commentsdocket_no.180427421-8421-01.pdf


## 2.3 Market and Non-Market Coordination Requirements of Next-Gen Digital Innovation

This multi-year project informs policies toward advanced ICTs in the United States. 5G wireless services will constitute an integral part of the future gigabit communication network infrastructure. Policy makers worldwide are striving to design legal and regulatory frameworks that best support 5G services. There is wide agreement that a competitive sector organization is superior, but the emerging models differ in the specific roles assigned to policy and regulation. This study explores the implications of alternative policy scenarios for innovation and investment in 5G networks and services. Before the backdrop of the policy discussions in Europe and in the United States, we examine the likely effects of regulatory instruments within a framework of complementary innovation. To assess the joint effect of regulation on the 5G value system, we develop three scenarios (entrepreneurship, regulated competition, policy-push) and discuss the advantages and disadvantages of each.

A key challenge for 5G is the exploration of the tremendous innovation opportunities space. Regulatory interventions affect players in this value system differently so that the overall effects on innovation and investment are contingent on the relative strength of partial effects. Given the importance of innovation and the unique characteristics of the 5G value system, we argue that the entrepreneurship model with safeguards to protect the competitive process and desirable forms of non-discrimination is the most promising approach. A first report (Bauer & Bohlin 2018) concluded that ex post regulation and competition policy are better aligned with these goals than traditional forms of ex ante regulation or the policy-push scenario emerging in China and South Korea. A project proposal based on this research program was submitted to the National Science Foundation in February 2019 and is currently under review.

## 2.4. Threats to Cybersecurity from Ideologically Motivated attackers

A project led by Tom Holt (Criminal Justice), Arun Ross (Computer Science), Ruth Shillair (Quello Center), and Johannes M. Bauer (Quello Center) at Michigan State University and a team of collaborators at Arizona State University is examining an extensive data set documenting cyberthreats posed by politically motivated attackers. Because they do not follow the monetary logic of financially motivated cybercriminals, their strategies are poorly understood, and defenses are often weak. The project is funded by contracts with Arizona State University and the Department of Homeland Security (DHS). Additional funding will be sought from the National Science Foundation (NSF).

## 2.5. Social Tolerance and Communication Technologies

This project focuses on how the use of new communication technologies, such as social media and mobile phones, affects the durability of relationships, including intergenerational ties (e.g., child-parent-grandparent relations), exposure to other people's opinions and background, and how this exposure is related to outcomes such as social tolerance. This work tests a new theory in the study of community, that new technologies facilitate persistent contact and pervasive awareness of social ties. As a result of persistence, relationships may be less transitory than in the recent past. This research expands our understanding of how the use of new technologies is related to the supportive nature of people's communities, the communication of diverse information, and interaction that could help counter the loss of social capital in contemporary communities. These processes and trends have the potential to increase social cohesion and social tolerance, thus improving the well-being of individuals and society. Keith Hampton is leading this project, currently funded by the NSF.

## 3. MATURE PROJECTS

## 3.1. Quello/Google Search Project

This study examines public political opinions by asking Internet users how they use search, social media, and other important media, for political information, and what difference it makes for them. We conducted an online survey of stratified random samples of Internet users in seven nations, including Britain, France, Germany, Italy, Poland, Spain, and the US. Google has supplemented its support of our project on search and politics to enable our work to be presented in Montreal in August, Washington DC in early September, in Mexico City in October, and in Prague last May. This work has already received international attention. Summaries of our project include presentations to academic, industry and policy communities in Britain (London, Oxford); Germany (Hamburg, Berlin, Munich); Italy (Rome); Belgium (Brussels); Spain (Madrid); China (Beijing) and the US (Arlington, Boston). These events helped bring the findings to a wider audience.

A number of papers and presentations have resulted from this work including: papers that review broad themes related the project; studies focused on trust in different sources of information about politics and policy; cross-national comparative analysis of search, seeking to explain cross-national differences; a study of the role of search in our evolving media ecology; analysis of the role of search and the Internet in populist attitudes; analysis of democratic digital inequalities that would examine how education and motivation are related to searching for and sharing political news; and analysis of democratic digital inequalities that would examine how education and motivation are related to searching for and sharing political news.

The Quello research team is still actively analyzing these data. Recent papers seek to better understand the role of social media and political agreement or disagreement in opinion formation, political participation and online expression. This work was featured as part of a panel presented on Capitol Hill in September and findings were presented at the *47th Annual Research Conference on Communications, Information, and Internet Policy* in Washington D.C.

## 3.2. Digital Inequalities: Broadband to the Neighborhood in Detroit

This project investigates the degree that neighborhoods in Detroit are disconnected from the Internet and what could be done to increase digital equity. Working in collaboration with the Wayne State University Center for Urban Studies, we conducted 525 telephone surveys with residents across three Detroit neighborhoods, and conducted three focus groups. The team completed data collection in December of 2017. In February, this work was presented at a Martin Luther King Day public forum hosted by the University of Michigan Detroit Center. Findings were also presented in September 2019 at the *47th Annual Research Conference on Communications, Information, and Internet Policy* in Washington D.C. and in August at the 2019 Annual Meeting of the *American Sociological Association*.

A paper entitled 'Urban Myths and Realities: A Detroit Case Study' has been published in the journal of *Information, Communication and Society*. A second paper, entitled 'Mobile Phones will not Eliminate Digital and Social Divides' is currently under review. We are currently analyzing these data to explore the relationships between family structure and patterns of use. Particularly, this study looks at the role of children as technology enablers and technology brokers for Black female heads-of-household and multi-generational households – family structures which are both more prevalent in Detroit as compared to the national average.

## 3.3. ICTs and the Prisoner Reentry Process

With seed funding from the MSU S3 and MSU LAP grants, this project investigates if and how information and communication technologies currently feature in the prisoner reentry process. The project examines to what extent parolees are currently using ICTs and for what purposes, as well as how ICTs could potentially improve the reentry process for parolees and parole officers alike.

Together with colleagues from the School of Criminology and Criminal Justice and the School of Social Work at MSU, the research team has conducted focus groups with parolees between April and June 2018. The goal of the study is to develop a framework in which ICTs could be used to improve reentry outcomes for parolees. The findings will inform a larger grant proposal to the National Science Foundation (NSF) and the National Institute of Justice (NIJ).

The team is led by Bibi Reisdorf, RV Rikard (Department of Psychology), and Jennifer Cobbina (School of Criminology and Criminal Justice). In addition, Tom Holt (Criminology) is involved in an advisory capacity. The team received research funding to hire two graduate research assistants, one from Criminology and one from Media and Information. The research team is currently in the process of publishing several papers from this pilot study and presented preliminary results at the IAMCR conference in Madrid, Spain in July 2019.

## 3.4. Cybersecurity

### 3.4.1. Cybersecurity Initiatives at MSU

A team of researchers from the Quello Center and the Colleges of Communication Arts and Sciences, Engineering, Business, and Social Sciences is pursuing several projects in addition to the effort funded by DHS. One emphasis area is the vulnerability of small and medium-sized enterprises (SMEs) in complex supply chains.

### 3.4.2. Cybersecurity Capacity Building Center, Oxford Martin Institute

Bill Dutton continues his role as chair of the Social and Cultural Dimension of the Oxford Martin Institute's Global Cybersecurity Capacity Center at the University of Oxford. He is working on the specific notion of a cybersecurity 'mindset' with papers of his own and with Ruth Shillair. Their research on the impact of cyber security capacity, based on a comparative analysis of 120 nations, and is featured in a chapter of the 2nd edition of *Society and the Internet* by Oxford University Press, another article is currently under review at *Journal of Information Policy*. This work is supported by the Foreign and Commonwealth Office in the UK, along with partners from other nations.

## 4. DIGITAL OUTREACH

## 4.1. Quello Featured Talks Live Stream

We now live stream our featured lectures in addition to making archive videos available. See an example here: http://quello.msu.edu/laura-denardis-the-internet-in-everything-video/


## 4.2. Quello Video Content

We conduct short interviews with our speakers to create promotional materials for release on social media. See an example here: https://www.youtube.com/watch?v=4GVZYpuL6HI&feature=youtu.be

## 4.3. Quello Center Online

We recently launched a newly designed website. If you have not already done so, it would be useful for you to:

- See our new website at http://quello.msu.edu/
- Like our Facebook page at https://www.facebook.com/QuelloCenter/
- Sign up for occasional Quello Center news at: http://quello.msu.edu/subscribe/


In addition, we have an online working paper series on the Social Science Research Network (SSRN) where you can browse and download our papers. See:
https://www.ssrn.com/link/Quello-Center-PUB.html


## 5. SELECTED RECENT PUBLICATIONS AND PRESENTATIONS

## 5.1. Journal Articles and Conference Proceedings


Aguelakakis, N., & Yankelevich, A. (2019). Collaborate or consolidate: Assessing the competitive effects of production joint ventures. *Economic Inquiry, 57*(1), 73-84.

Astorne-Figari, C., López, J. J., & Yankelevich, A. (2019). Advertising for consideration. *Journal of Economic Behavior & Organization, 157*, 653-669.

Dutton, W. (2019), Internet Daemons: Digital Communications Possessed. Fenwick McKelvey. Minneapolis, MN: University of Minnesota Press, for *Journal of the Association for Information Science and Technology.*

Dutton, W. H., and Fernandez, L. (2018/19), 'How Susceptible Are Internet Users?', *InterMEDIA*, December/January 2018/19 46(4): 36-40.

Dutton, W., Creese, S., Shillair, R., & Bada, M. (under review). Cybersecurity Capacity: Does It Matter? *Journal of Information Policy*.

Fernandez, L., Reisdorf, B. C., & Dutton, W. H. (2019). Urban Internet myths and Realities: A Detroit case study. *Information, Communication & Society,* 1–22.

Hampton, K. N. (2019). Social Media and Change in Psychological Distress over Time: The Role of Social Causation. *Journal of Computer-Mediated Communication.*

Holt, T., Lee, J. R., Freilich, J., Chermak, S., Bauer, J., & Shillair, R. (under review). An Exploratory Analysis of the Characteristics of Ideologically Motivated Cyberattacks. *Terrorism and Political Violence.*

Mack, E. A., Dutton, W. H., Rikard, R. V., & Yankelevich, A. (2019). Mapping and measuring the information society: A social science perspective on the opportunities, problems, and prospects of broadband Internet data in the United States. *The Information Society, 35*(2), 57–68.

Marin, A., & Hampton, K. N. (2019). Network Instability in Times of Stability. *Sociological Forum.*

Mourão, R. R., & Robertson, C. T. (2019). Fake News as Discursive Integration: An Analysis of Sites That Publish False, Misleading, Hyperpartisan and Sensational Information. *Journalism Studies.*

Reisdorf, B., Fernandez, L., Hampton, K. N., Shin, I., & Dutton, W. H. (under review). Mobile Phones will not Eliminate Digital and Social Divides. *Social Science Computer Review* (SSCORE).

Reisdorf, B. C., Yankelevich, A., Shapiro, M., & Dutton, W. H. (2019). Wirelessly bridging the homework gap: Technical options and social challenges in getting broadband to disconnected students. *Education and Information Technologies.*

Reisdorf, B.C., Triwibowo, W., & Yankelevich, A. (under review). Laptop or Bust: How Lack of Technology Affects Student Achievement. *American Behavioral Scientist.*

Robertson, C. T., Dutton, W. H., Ackland, R., & Peng, T.-Q. (2019). The democratic role of social media in political debates: The use of Twitter in the first televised US presidential debate of 2016. *Journal of Information Technology & Politics*, 1–14.

Robertson, C.T., & Mourão, R. (in press). Faking alternative journalism? An analysis of self presentations of "fake news" sites. *Digital Journalism*, online first.

## 5.2. Books and Chapters

Creese, S., Shillair, R., Bada, M., Reisdorf, B. C., Roberts, T., & Dutton, W. H. (2019). The Cybersecurity Capacity of Nations. In M. Graham & W. H. Dutton (Eds.), *Society and the Internet: How Networks of Information and Communication are Changing our Lives* (2nd ed.). Oxford: Oxford University Press.

Dutton, W. H. (2019). Wired City. In A. M. Orum (Ed.), *The Wiley Blackwell Encyclopedia of Urban and Regional Studies* (1st ed.).

Dutton, W. H., Reisdorf, B. C., Blank, G., Dubois, E., & Fernandez, L. (2019). The Role of Search and Social Media in Shaping Public Opinion. In Mark Graham & W. H. Dutton (Eds.), *Society and the Internet: How Networks of Information and Communication are Changing our Lives* (2nd ed.). Oxford: Oxford University Press.

Fernandez, L. (forthcoming). Digital Advertising in Political Campaigns and Elections. In W. H. Dutton (Ed.), *A Research Agenda for Digital Politics*. Edward Elgar Publishing.

Graham, M., and Dutton, W. H. with a foreword by Manuel Castells (2019) (eds), *Society and the Internet, 2nd Edition: How Networks of Information and Communication are Changing our Lives.* Oxford: Oxford University Press.

Reisdorf, B.C. & Blank, G. (under review). Algorithmic Literacy and Platform Trust. In Hargittai, E. (Ed.). *Handbook of Digital Inequality.* Edward Elgar Publishing.

Reisdorf, B. C., Blank, G., & Dutton, W. H. (2019). Internet Cultures and Digital Inequalities. In M Graham & W. H. Dutton (Eds.), *Society and the Internet: How Networks of Information and Communication are Changing our Lives* (2nd ed.). Oxford: Oxford University Press.

Robertson, C., & Dutton, W. H. (forthcoming). *The Fifth Estate Joins the Debate: The Political Roles of Live Commentary in the First Televised Presidential Debate of Hillary Clinton and Donald Trump* (J. M. Jones & M. Trice, Eds.).

## 5.3. Presentations

Bauer, J. M. (2019, June). *Regulatory Challenges of ICT Convergence*. Presented at the 44th PURC/World Bank International Regulatory Program, University of Florida, Gainesville, FL.

Bauer, Johannes M., Trends in Communication Markets", NARUC Annual Regulatory Studies Program, Michigan State University, East Lansing, August 12, 2019.

Bauer, Johannes M., Technical, Economic, and Social Coordination Requirements of Internet-Based Innovation (July 21, 2019). Available at SSRN: https://ssrn.com/abstract=3423613.

Bauer, Johannes M., Use of Computational Tools to Support Planning and Regulation, São Paolo, Brazil, April 21, 2019

Bauer, Johannes M. and Bohlin, Erik, The Role of Regulation in 5G Market Design (July 15, 2019). Available at SSRN: https://ssrn.com/abstract=3421024.

Bauer, J. M., Fernandez, L. and Hampton, K. N. (2019, September). *The Michigan Moonshot: Preliminary Findings*. Presented at the Michigan Broadband Summit, Gaylord, MI. Retrieved from https://www.merit.edu/broadband/.

Bauer, J. M., Fernandez, L. and Hampton, K. N (2019, October). *Real World Homework Gap Solutions*. To be presented at the AnchorNETS, 9th Annual Conference of the Schools, Health & Libraries Broadband (SHLB) Coalition, Crystal City, VA. Retrieved from https://web.cvent.com/event/cbc9e242-8251-482d-af45-c89118b8ff87/summary

Banerjee, S., Swearingen, T., Shillair, R., Bauer, J., Holt, T., and Ross, A. (2019). *Analysis of Cyberattack Patterns across Longitudinal Data*. 2nd Annual Conference on the Human Factor in Cybercrime. Amsterdam. The Federmann Cyber Security Center: Cyber Law Program.

Dutton, W., Esteve-Gonzalez, P., and Shillair, R. (2019). *Cyber Security Capacity Building: A Cross-National Empirical Study.* Global Forum on Cyber Expertise Annual Meeting. Addis Ababa, Ethiopia.

Fernandez, L., Shillair, R., & Reisdorf, B. (2019, September). Building Our Own Bridges: How a Distressed Urban Neighborhood Bridges the Digital Divide. Presented at the 47th Research Conference on Communications, Information, and Internet Policy (TPRC), American University Washington College of Law, Washington D.C. *SSRN Electronic Journal.* https://doi.org/10.2139/ssrn.3427438

Hong, S. J., Bauer, J. M., Lee, K., Granados, N. F. (2020), Effects of Flexibility, Security, and Information Features on Supplier Participation in the Sharing Economy: An Empirical Study, Proceedings of the 2020 Hawaii International Conference on Information Science (HICSS 2020).

Robertson, C., Fernandez, L., & Shillair, R. (2019, September). The Political Outcomes of Unfriending: Social Network Curation, Network Agreeability, and Political Participation. Presented at the 47th Research Conference on Communications, Information, and Internet Policy (TPRC), American University Washington College of Law, Washington D.C. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3426216

Robertson, C.T. (2019, May). Nopes and PolitiFake: The influence of the 'liberal bias' narrative on conservative attitudes toward mainstream fact-checkers. Paper presented at the *International Communication Association Conference*, Washington DC.

Robertson, C.T. (2019, May). Who checks? Identifying predictors of online verification behaviors. Paper presented at the *International Communication Association Conference,* Washington DC.

Robertson, C.T., Mourão, R. (2019, August) Conservatives trust algorithms: How mainstream media trust, discourse, correspondence, and partisanship shape attitudes towards news aggregators and search engines. Poster presented at the *Association for Education in Journalism and Mass Communication Conference*, Toronto.

Robertson, C.T., Mourão, R., & Thorson, E. (2019, May). Who uses fact-checking sites? The impact of demographics, political antecedents and media use on fact-checking site awareness, attitudes, and behavior. Paper presented at the *International Communication Association Conference*, Washington DC.

Shillair, R., & Fernandez, L. (2019, September). Diversity Without Disagreeability: A Multi-National Examination of Social Networks and Participation in Political Dialog. Presented at the 47th Research Conference on Communications, Information, and Internet Policy (TPRC), American University Washington College of Law, Washington D.C. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3426604