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EXECUTIVE SUMMARY

In 2018, the Quello Center welcomed a new Director and a new Director for Academic Research. Our team has continued to work on existing projects (e.g., digital inclusion, search and politics, social media and tolerance), initiated new projects, and served as a hub for engaged discussions of important issues of media and information policy. In addition to work analyzing data from earlier empirical work in Detroit and on search, we continued our collaboration with Merit Network and developed two funding proposals. Longer-term proposals to the National Science Foundation are in preparation, one addressing the policy challenges of 5G services and a second the threat of politically motivated actors on information security. The first is already under review, the other one to be submitted to the National Science Foundation in February, 2019.

The team continues to develop publications of their work developed from grant and contract supported research, as well as the publications that are so critical to our academic reputation. A recent technical report addresses the roles and effects of access regulation on investment and innovation in the emerging 5G markets, using the U.S. and European policy models as a backdrop. Throughout 2018 we have extended our work with Google on fake news, filter bubbles, and echo chambers. The team has also engaged in substantial outreach concerning findings from the Center’s digital inequalities, wireless, and search projects. Building on the Quello Center’s ongoing research concerning digital policy and digital inequalities, our team continues to work on new grant and funding proposals such as a collaborative effort with Merit in a multiple-industry partner project concerning the homework divide in Michigan.

Finally, we regularly give presentations to national and international practitioners. We will continue our program of events during 2019 with several lectures and roundtables at Michigan State University. Moreover, we are co-organizer of a one-day conference on social media governance on Friday, May 24, 2019, in Washington, D.C., to be held prior to the annual meeting of the International Communications Association (ICA) (more details will be shared separately).
1. LEADERSHIP CHANGES

Bill Dutton returned to Oxford where he is working with the Global Cyber Security Capacity Centre. Dr. Bibi Reisdorf relocated to North Carolina to begin her position as Assistant Professor in The Department of Communication Studies at the University of North Carolina at Charlotte. Both colleagues remain involved in collaborative research and outreach with the Quello Center.

In August, the Quello Center welcomed Professor Johannes M. Bauer as the new director. In addition, Professor Keith Hampton has agreed to facilitate research initiatives as the Center’s new Director of Academic Research. And Dr. Laleah Fernandez has transitioned to become the Center’s Assistant Director. Finally, the Center welcomes Rachel Garen-Craft as the Quello Office Administrator.

Incoming Director Johannes Bauer brings a wealth of research initiatives, papers and presentations in the areas of the digital economy, next generation infrastructure, and regulation. Some of his most recent work include:


Johannes has gained international attention for his work with recent presentations in Brazil, Spain, and the US. Some of his recent talks include:

Bauer, J. M. ‘Digital Transformation and The Digital Economy’, keynote address, Rio de Janeiro, Brazil, September 10, 2018


Incoming Director of Academic Research, Keith Hampton adds a body of work focused on the relationship between new information and communication technologies, social networks, democratic engagement and the urban environment. In addition, he has played a key role in thinking about research that could evolve from WKAR’s move to next generation public service broadcasting. Some of his most recent work includes:


2. RESEARCH OUTREACH UPDATES

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 as a result of talks in Oxford and London, Hamburg and Berlin, Rome, Paris, Ottawa and Toronto, Visby, Sweden, Beijing, Madrid, and Boston. Presentations in Madrid included a talk at the Internet Governance Forum and in Boston at the Harvard Kennedy School. These events have helped bring the findings to a wider public of leaders in the press, government, politics, and academia, not only through the report but through this series of presentations and growing coverage and recognition of our research in the press. For example, a recent opinion piece in The Guardian referenced our research.¹

Our comment, submitted to the NDIA in July 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 particular 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 will be enhanced by enlisting the help of regional and national networks that include educators, academics and information technology practitioners, advocates and consumers.

After returning to Oxford, our former Quello Director Bill Dutton has been invited to be a Senior Fellow at the OII, for which he was the founding director, and an Oxford Martin Fellow, enabling him to consult for the GCSCC, and a Visiting Professor in Media and Communication at the University of Leeds. So, we expect Bill to continue to carry the Quello flag in his active retirement.

The Center continues outreach efforts on a number of fronts. We organized several events at MSU and contributed to conferences and workshops in the U.S. and abroad.


3. NEW PROJECTS

3.1. Crowdsourcing of improved broadband data

Broadband is of increasing significance to all consumers, government policy, economic development, scholarly research, community access, and education both inside and outside the classroom.² 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 will be launched early in February 2019 before the effort will be scaled. In parallel to developing the technical and methodological foundations, we will seek funding for the initiative.

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.


3.2. Market and Non-Market Coordination Requirements of Next-Gen Digital Innovation

This project will examine the importance of coordination mechanisms for the rate and direction of Internet-based innovation. Two closely related, emerging areas with considerable innovation potential are services and applications utilizing the Internet of Things (IoT) and advanced wireless platforms (including 5G, satellites, and possibly next-generation broadcasting). In contrast to earlier generations of Internet-based innovation, the heterogeneous technological and economic characteristics of these potential services their exploitation most likely will require more differentiated forms of coordination between the relevant players. Only if the synergies between multiple, interdependent players, such as Internet Service Providers (ISPs), device manufacturers, application developers, and users, can be coordinated well, will their full potential be exploited. The multi-year project will inform policies toward advanced ICTs in the United States. The project proposal will be submitted to the National Science Foundation in February 2019 (program submission deadline). 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 conclude 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 proposal to the National Science Foundations (NSF) to explore these issues further is in preparation.


3.3. Cybersecurity
A project led by Johannes M. Bauer (Quello Center), Tom Holt (Criminal Justice) and Arun Ross (Computer Science) has collected extensive data on politically motivated attackers. Because they do not follow to monetary logic of financially motivated cybercriminals, their strategies are poorly understood, and defenses are often weak. The team will submit a research proposal to the National Science Foundation later in the fall. A third project is coordinated by Steven Melnik and Elizabeth Connors in the Broad School of Business with Tom Holt and Johannes Bauer as collaborators. This initiative examines the role of small and medium enterprises (SMEs) as potential weak links in defenses against cyberattacks and the role of policy in reducing the vulnerabilities.

3.4. 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, and currently seeking funding from various sources, including NSF.

3.5. Digital and Networking Strategies for Community Planners
This project builds on a model of mobilization in combination with network theories for developing communication and media strategies. Communication and information sharing goals will change depending on the stage of communication, thus, a strategic approach considers the information goal and characteristics of the channel to optimize efficient and effective communication for awareness, consensus building and mobilization. The goal is to leverage ICTs in such a way to increase public awareness, engage the public and sustain projects through community participation. This project is currently supported by the MSU’s Center for Regional Economic Innovation (REI) with a $10,000 research grant to conduct a case study analysis and design a toolkit that can be replicated for broader application.

3.6 Digital Information Equity
Together with researchers in the Department of Advertising and Public Relations, the Department of Communication, and the School of Journalism in the College of Communication Arts and Sciences we submitted a major proposal to the Knight Foundation in December 2018. This initiative hopes to generate funding for an interdisciplinary research program on the role of digital media in our democracy and the challenges created by inequality of access to information. The overarching goal is to develop policies and initiatives that could help mitigate differences in access and use of information to strengthen civic participation. This is the first of a two-step application process. Only a few teams will be invited in February 2019 to submit a second-round proposal.

4. CONTINUING PROJECTS

4.1. Search and Politics: The Role of Search in Shaping Political Opinion
This study addresses whether or not these media have a major impact on the political opinions and viewpoints of the public 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.

Recent work on this project includes:
Summaries of our report/project were presented to academic, industry and policy communities in Britain (London, Oxford); Germany (Hamburg, Berlin, Munich); Italy (Rome); Belgium (Brussels); Spain (Madrid); China (Beijing); the Czech Republic (Prague); the US (Arlington, Boston); and Mexico (Mexico City).

An overview of our Report was part of a three-hour workshop on research around echo chambers, filter bubbles and social media organized for a preconference workshop for the Social Media and Society Conference, Toronto, Canada https://socialmediaandsociety.org/ July 28-30, 2017

4.1.1. Overviews: These papers review broad themes related the project. The following is a list of papers that further develop and deepen particular themes and issues of our project report. They have been completed or are in progress, categorized here by the indicative list of paper topics promised by the team:


4.1.2. Vulnerables: Work identifying the Internet users most vulnerable to fake news and echo chambers. This paper would build on the findings to suggest interventions, such as around digital media literacy to address these risks.


Bibi presented work on ‘Skills, Usage Types and political opinion formation’, an invited talk at Harvard Kennedy School, Oct 19, 2017 [Bibi (presenting) work with Grant]


4.1.3. Trust: A study focused on trust in different sources of information about politics and policy for a political communication journal, such as the International Journal of Communication.


4.1.4. Cross-national Comparison: A cross-national comparative analysis of search, seeking to explain cross-national differences, for an Internet and society journal, such as Information, Communication and Society (ICS), or New Media and Society.


4.1.5. Search: A study of the role of search in our evolving media ecology. One of the unique strengths of this project is that it contextualized search in the environment of the entire range of media. The dataset asks respondents about activity on six offline and seven online media, including search, plus nine social media. What is the role of search in this broad ecology
of online and offline media? Are people who have complex media habits less likely to fall into echo chambers?

Reisdorf, B. C. is planning a special issue with Anja Bechman and Oscar Westlund on Filter Bubbles, News, and Search for New Media and Society, Information Communication and Society, The Information Society, or Media Culture and Society.


Blank, G. (2017), ‘Search and Politics: The Uses and Impacts Of Search in Britain, France, Germany, Italy, Poland, Spain and the United States’. Presentation at the Google display at the Almadalen conference in Sweden on 3 July.


Blank, G., and Dubois, E. (2018), ‘Is The Echo Chamber Overstated? Findings From Seven Countries’, presentation at the Düsseldorf University, Institute for Internet and Democracy Conference, Düsseldorf, Germany on 5 July.

4.1.6. Populism: An analysis of the role of search and the Internet in populist attitudes. How is populism related to search? Is the Internet and search supporting the rise of individuals with more confidence in their knowledge of policy, and supportive of more popular control? Are populists more likely to be in an echo chamber than those less in line with populist viewpoints?


Fact Checking: Checking Information via Search: Who, When, Why? Between 41 percent (UK) and 57 percent (Italy) of respondents say they check information using search “often” or “very often”. Who are those who double-check sources?


4.1.7. Democracy: An analysis of democratic digital inequalities that would examine how education and motivation are related to searching for and sharing political news. Is there a gap in the way that people from different educational backgrounds search for and share political news, and if so, does this affect how they shape their political opinions?


Blank, G. (2018), ‘Democracy and Technology’, Grant will speak at the Google display at the SuomiAreena conference on 16 July in Pori, Finland.


4.2. Digital Inequalities: Broadband to the Neighborhood in Detroit

This project investigates the degree that neighborhoods in Detroit are disconnected from the Internet—not online—and what could be done to increase digital equity and digital inclusion across three urban neighborhoods of the city.

Two papers are underway with presentations at TPRC in September 2018, in Washington D.C. and a keynote presentation at the Merit Conference in May 2018 in Ypsilanti, MI.


4.3. 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 which extent parolees are currently using ICTs and what for, 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, and they are still in the process of conducting in-depth interviews with parole officers and other people involved in the reentry process. 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 lead 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 team published one paper and has further papers in progress for submission in November:


4.4. Cybersecurity

4.4.1. 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 has pursued several projects related to cybersecurity. A project headed by Tom Holt in the School of Criminal Justice received funding by the Department of Homeland Security.

4.4.2. 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 has been working on the specific notion of a cybersecurity ‘mindset’ with papers of his own and with Ruth Shillair, a doctoral student in Media and Information, and a paper on the impact of cyber security capacity based on a comparative analysis of 120 nations. This work is supported by the Foreign and Commonwealth Office in the UK, along with partners from other nations.

4.5. Bridging Rural Access Divides
Following up on an initial round of discussions and a successful pre-proposal, the Quello Center has submitted a full proposal to Merit Network, Microsoft, and other industry partners to undertake multiple embedded case studies of the “Smart Country” Project (more detail above). The Quello Center proposed to study the social and technical dynamics of this particular TVWS initiative, which includes assessing:

- Who will benefit from enhanced broadband availability?
- How do existing and new adopters incorporate broadband into their lives as it is rolled out?
- What is the ecology of actors and organizations critical to broadband provision and use throughout rural communities?
- Do existing broadband providers respond to competition from the Smart Country project through lower prices or improved quality?

Answering these and other questions will require the team to conduct reviews of relevant documents, site visits, and in-depth semi-structured and unstructured interviews with key stakeholders, including individuals benefiting from and working to implement wireless Internet connectivity.

4.6. Media and Information in Political Campaigns and Elections: The Twitter Study
Complementing our study of search and social media in the acquisition of political information is a study of the role of live participating on social media during televised political debates. Is it mere entertainment, partisan spinning of the debate, or does it play a useful role in the debates? The Quello Center supported the acquisition of all tweets from 15 minutes before the first televised 2016 debate between Hillary Rodham Clinton and Donald Trump to study the actual role of live tweets. Their findings are the subject of two papers now under review:


5. QUELLO CENTER DIGITAL OUTREACH

5.1. Quello Library
New acquisitions have continued to keep the Quello Library up-to-date on publications central to its mission, and to serve as a valuable resource for Quello faculty, staff, and students. On leaving the Quello Center, Bill Dutton donated the lion’s share of his personal collection to the Center’s library, ensuring that the Center continues to have a very useful collection specialized around media and information policy and regulation.

5.2. Digital Archive: the James H. Quello collection
The Quello Archive project began in September 2016 to digitize the Center's holdings of James H. Quello's speeches and notes while an FCC Commissioner. We now have all text prepared, along with videos, photos, and awards. Materials were unveiled December 14, 2017. The official launch followed our December Advisory Board Meeting and included a kick-off event and ceremony. You can explore the archive online at: http://quello.msu.edu/quello-archives/ In addition, all of the elements in the collection are tagged such that they are likely to bring readers to the collection who are interested in the topics that engaged James Quello, such as child protection and the first amendment.

5.3. Quello Center Online
The Quello Center’s outreach includes our website, blogging, Twitter account, video archive of talks, and Facebook page. If you have not already done so, it would be useful for you to:

- Learn more about us through our blog at http://quello.msu.edu/
- Follow our Twitter account @QuelloCenter
- Check out our Flickr account at: https://www.flickr.com/photos/quellocenter/albums
- 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: http://papers.ssrn.com/sol3/JELJOUR_Results.cfm?form_name=journalbrowseandjournal_id=2680391.

We are continuing discussions of how to evolve our outreach to maximize the potential of social media, and welcome suggestions. In the coming months, the Quello team plans to revisit and revamp the Quello homepage, and is considering adding an Instagram account for extending our outreach. Already, a student paper in Communication found that the Quello Center has a remarkable level of visibility and centrality within the College, due to its activity offline and online.
5.4. Development
Bill Dutton worked with the Development Office in the College to prepare a document for individuals to pledge support to the Quello Center. This was sent before at the end of 2017, focusing attention on the 20th Anniversary of the Center in 2018. This request for pledges was sent to many from among the original set of contributors to the Center. Suggestions or comments on the document would be welcomed. Find this at: https://givingto.msu.edu/gift/?sid=3388 and under the ‘Donate’ button on the Quello Center’s blog.