Final Report

TITLE OF WORKSHOP GRANT PROJECT:
THE INTERNET AS A RESEARCH TOOL: BRIDGING POLITICS AND TECHNOLOGY IN THE STUDY OF INTERNET SHUTDOWNS

WORKSHOP COORDINATOR(S):

Tina Freyburg
Full Professor of Political Science
University of St.Gallen | School of Economics and Political Science

Ronald Deibert
Full Professor of Political Science & Director of the Citizen Lab
University of Toronto | Munk School of Global Affairs

PRIMARY CONTACT PERSON (if there are multiple Coordinators) [LIST ONLY ONE]:

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DATE, LOCATION AND DURATION OF THE WORKSHOP PROJECT:

The workshop was held in conjunction with the ISA Annual Convention in Toronto in 2019, i.e. on March 26th.
WORKSHOP PARTICIPANTS

<table>
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<tr>
<th>NAME</th>
<th>TITLE/RANK</th>
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SCHEDULE

8:30   Arrival of participants

9:00   Welcome and introduction of participants
       Tina Freyburg, Ron Deibert

9:25   The political study of internet shutdowns and its challenges
       Tina Freyburg, Lisa Garbe, Véronique Wavre; Discussant: Alberto Dainotti
       (20 min. input, 15 min. discussion, based on working paper)

10:00  coffee break

10:30  Internet censorship in authoritarian contexts
       Eda Keremoglu-Waibler; Discussant: Suso Benitez-Baleato
       (15 min input, 15 min discussion, based on working paper)

11:00  Zooming in Ia: Applications in political science research
       (each: 15 min presentations, 15 discussion, based on short paper of max. 5 pages with focus
       on measurement of internet disruptions and the specific challenges)
       Chair: Jackie Kerr
       - Jan Rydzak; Discussant: Joss Wright
       - Moses Karanja; Discussant: Jackie Kerr

12:00  lunch break @ Cactus Club, 77 Adelaide Street West (6 min. on foot)

13:30  Zooming in Iib: Applications in political science research
       - Navid Hassanpour; Discussant: Kavé Salamatian

14:00  Zooming in Iia: Innovations in computer science research
       (each: 10 min inputs, based on short paper of max. 5 pages that presents own approach;
       followed by open discussion)
       Chair: Ron Deibert
       Alberto Dainotti | Suso Benitez-Baleato | Jakub Dalek, Ron Deibert | Roya Ensaﬁ

15:00  coffee break

15:30  Zooming in Iia: Innovations in computer science research
       Kavé Salamatian | Joss Wright

16:00  Bridging research in political science and computer science
       (2-3 small workshops, each with participants from computer and political sciences)

17:30 Concluding session: Wrap-up, current challenges and potential synergies

19:00 Dinner @ Pizzeria Libretto, 155 University Avenue (10 min. on foot)
WORKSHOP REPORT:

The aim of our workshop was to discuss and develop an accurate measure of politically-motivated interruptions of access to the internet. To this end, the workshop brought together scholars interested in detecting internet shutdowns from both political science and computer science. Jointly, we discussed the conceptualization, operationalization and measurement of politically-motivated interruptions of the provision of internet services.

We split the one-day workshop into three major thematic blocks. For each individual workshop, participants provided input talks. In the first thematic block, we focused on the definition and conceptualization of internet shutdowns. In this session, we recapped existing research on internet shutdowns and developed a shared working understanding thereof. Specifically, Tina Freyburg (the workshop coordinator) and her team introduced the workshop topic and presented the key challenges involved in defining and measuring politically motivated internet disruptions from a political science perspective. They identified a set of questions that guided the workshop discussion throughout the day. Alberto Dainotti, leading expert in working with real-time internet activity data reacted to their input and complemented the list of questions from the perspective of computer scientists. In a second step, Eda Keremoglu-Waibler provided an overview of existing attempts to define and conceptualize internet shutdowns. Her concise overview presented the basis for developing a shared working understanding, which was needed for the second and third thematic blocks. Suso Benitez-Baleato served as discussant of her input and also moderated the discussion with the aim of reaching such shared understanding.

In the second thematic block, we discussed the properties of measurements of internet shutdowns needed in political science research. To this purpose, we invited three political scientists presenting their ongoing work with a focus on the relationship that they want to test and the properties that the data need to have for this purpose. Each presentation was discussed by a computer scientist specialized in working with internet activity data. Based on the reaction of the computer scientists, a discussion evolved around what aspects of the respective problems are particularly interesting for political scientists and what aspects for computer scientists. The discussion highlighted a number of promising avenues for future, cross-disciplinary collaboration.

In the third thematic block, we then turned toward computer science research, concentrating on different efforts to measure internet shutdowns. In this session, we discussed which data is publicly available, how it would need to be processed for social science analyses, and what its limitations are. We further zoomed in to the advantages and disadvantages of different approaches, also in light of the political science research shared in the first and second thematic blocks. In doing so, we also reflected on how to responsibly use technical measurements for political science research. Eventually, research conducted on and in the internet requires particular attention to ethical issues such as participant knowledge and consent, data privacy, security, confidentiality, and integrity of data, intellectual property issues, and community, disciplinary, and professional standards or norms. All participants acknowledged that we need to learn more about the extent to which and the way in which this data can actually be linked to individuals, in particular as regards our data based on the distribution of IP addresses, which are unique identifiers connecting every device (not individual) to the internet. Suso Benitez-Baleato gave an additional input on this important question, based on his ongoing work at Harvard University.

The workshop concluded with three workshops that brought together political scientists and computer scientists interested in similar problems. That is, based on the earlier discussions, we identified three different problems and organized one workshop per problem. The first workshop addressed the question of noise, that is how to determine that an observed disruption was ordered by the state rather than the consequence of a presumably a-political event, such as natural catastrophes. The second workshop dealt with the specificities of the internet infrastructure in the developing world and problematized the extent to which insights gained from studies of the European and North-American context to this part of the world. Finally, the third and last workshop turned toward the role of companies and discussed ways in which internet activity can be clustered
at the level of firms. The workshops proved extremely helpful, and the discussion continued over dinner and subsequent email exchanges.

The workshop was aimed at advancing two goals: to generate a global database of internet shutdowns based on theoretically grounded and methodologically sound technical measurement that allows for comprehensive large-N analyses and that can easily be extended in terms of time and space; and to create a global network of political and computer scientists interested in the systematic and accurate empirical study of internet shutdowns.

We progressed with regard to both goals. First, all participants agreed that the workshop was an important step in creating a broader dialogue among scholars interested in using technical measurements of internet activity for political science research. This dialogue is not only important in order to gain a better understanding of internet shutdowns, but also to stimulate a general debate about the use of internet-based data in political science. The discussions on the use of technical measurements internet activity for political research were extremely insightful and multi-faceted.

Second, all participants agreed that a joint article on the conceptualization and technical measurement of internet shutdowns based on BGP-level data would be desirable. The publication of such a paper should be accompanied by making both the raw and the processed data available to the academic community. To this end, we will organize a second interim workshop in fall 2019 or spring 2020, potentially also in the context of the 2020 ISA conference. At this second workshop selected participants shall present studies of the effects and determinants of internet provision and its interruption that use our novel measure of internet activity, in addition to the intensive discussion of the joint article.

As regards dissemination of the key insights to the wider public, it is our ongoing ambition to increase the awareness of the threats to human rights in the digital realm. To this end, we shared our insights into the possibilities of companies and citizens’ engagement to mitigate negative externalities of ICT expansion in authoritarian developing countries through regular contributions to news media reports but also through the creation of a short video documentary, with Noémie Guignard from Radio Télévision Suisse. The video is now publicly shared through the youtube channel of the University of St.Gallen and can be accessed here: https://youtu.be/ccKLk-UKqhE.

We warmly thank the ISA for the financial support of our workshop.