

Proposed Research: Mary Joyce

The Global Impact of Information Infrastructure on
Identity Formation and Social Movements

Introduction: The year is 1991, the location, Moscow. A coup attempt is underway and Boris Yeltsin, trying to regain political control, reads a speech from atop a tank in front of Parliament. The speech is then taken to the nearby headquarters of a small computer collective where a group of activist-engineers broadcasts the speech to the world via the newsgroup network Usenet (Press 1991). This is one of the most dramatic early examples of international digital activism, a new form of political behavior by which citizens and civic groups leverage the affordances of digital technologies to achieve social and political change. Since then, individual case study analysis has been the norm for researchers of this phenomenon. Some have analyzed cases by using historical narrative, structured interviews, and content analysis (McCaughey and Ayers 2003), while others have used these methods for small-n case comparisons (Bimber et al. 2012). However, due to rapid global technology diffusion and the diversity of new tactics, this focused approach often has limited capacity for generalizability (Joyce 2010). During my Fellowship Tenure I intend to continue building the first comprehensive event database of incidents where social movements used information infrastructure for political ends. *My goal is to explain, for the first time in a generalizable way, the relationship between technology diffusion, political identity, and social movement formation around the world.*

Hypotheses: Due to the wide range of variables in the data set, there are many hypotheses that could be tested. As I work the dataset will continue to be publically available for other researchers in the social, information, and computer sciences. However, for my fellowship I will focus on four effects that I believe are likely to reveal rich findings with high intellectual merit and broader impact. My hypothesis is that the use of digital technologies alters the practice of international activism by *1) decreasing the duration of tactical actions, 2) increasing the geographic scope of those actions, 3) increasing the diversity of activist organizations, and 4) achieving a range of process benefits beyond the simple dichotomy of success and failure.*

Methods: Broad-based comparative studies of digital activism are just beginning to emerge, but they have all been of limited scope. Some scholars have used network analysis and scraping software to collect large data sets of older types of digital traces, like e-petitions and email (Earl and Kimport 2011), or new social media traces, like tweets (Ifukor 2010). Others have used fuzzy set analysis to study macro-political and technology access indicators (Howard 2010) across a group of countries. Yet no one has successfully studies both the paired online and offline context of digital activism as a global phenomenon. The Global Digital Activism Data Set, which currently includes over 1,200 cases from 144 countries, makes this type of analysis possible for the first time. It is by far the largest set of digital activism data that includes information about both digital traces and also offline organizational and geographic context. This academic year, while supported by USIP funding, I plan to complete coding and case collection through 2012, assisted by scraper software currently being built to automate collection. I will then focus on analysis during my fellowship, using a multimethod approach that includes comparative case study, content analysis, statistical analysis and data visualization methods.

Technical Skills and Mentoring: This project will be the central project of the Digital Activism Research Project, which I have co-founded with my GRFP advisor and mentor, Prof. Philip N. Howard. In sharing data we will enhance the infrastructure for research and education on digital

activism. I already have the technical skills to manage the data collection, and have conducted a successful “pilot project” on a small subset of cases. While at the University of Washington I will undertake the necessary statistical training courses to do large scale analysis. I have already complete basic coursework in statistics, so my advanced training will likely include time-series analysis, and/or fuzzy logic modeling.

Anticipated Results or Findings: Initial frequency analysis of a sample of 100 coded cases indicates that many digital actions are of extremely short duration (less than one week), a likely result of the ease of online collaborative action and the intense competition for attention. With Geographically, only a small percent of cases are local or sub-regional, while national and international cases make up the majority, due to the ease of information transmission on the network. This initial sample also indicates a new diversity in the range of organizational structures capable of initiating an instance of activism, ranging from a few hackers to synchronous but non-collaborating bloggers and nonprofits, revealing the importance of information infrastructure for global civil society. Finally, though many digital actions are undertaken by new activists, and thus fail in achieving their intended goal, they do achieve a range of process benefits, such as increasing public awareness of the issue and building supporter networks that can later be mobilized.

Intellectual Merit: This project will advance research in human computer interaction and computer engineering by analyzing and theorizing the impact of political repurposing of digital technology outside the engineering lab. It will advance social science theory about political identity formation, collective action, and social movement organization by situation the role of information technology in contemporary political processes. My research will advance political science, sociology, public policy, and advocacy by describing the role technology plays in core democratic behaviors of advocacy and citizenship. I have already been working on this project for two years and feel confident in my ability to carry it through to completion. I will be supported in my work by Prof. Howard, political media scholar Lance Bennett, and Internet research methods expert Kirsten Foot at the University of Washington. In addition, Ethan Zuckerman at MIT will be mentoring this work.

Broader Impacts: The broad impact of this project will be to build the first comprehensive event dataset about the political consequences of new information infrastructure. This work will teach foreign policy experts about the importance of understanding innovations in engineering and computer science. The project has engaged a geographically diverse group of volunteers, scholars, and institutions from both inside and outside academia and will continue to do so. The data, visualizations, and findings that result from this project will all be made public at

www.digital-activism.org.

References:

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