Mobilization for change: the role of the networked public sphere in advancing civic participation and collective action in the Arab region

Final Technical Report
15 July 2015

By: Access to Knowledge for Development Center (A2K4D) at The American University in Cairo (AUC) and Berkman Center for Internet and Society at Harvard University

IDRC Project Number: 107068-002

Country/Region: Egypt, Tunisia, and United States

American University in Cairo (AUC)
Access to Knowledge for Development Center (A2K4D)
AUC Avenue, P.O. Box 74
New Cairo 11835, Egypt.
tel 20.2.2615.1000
fax 20.2.27957565

Berkman Center for Internet and Society
Harvard University
23 Everett Street
Cambridge, MA 02138
tel 617-495-7547
fax 617-495-7641

Contact Information for Research Teams:
Access to Knowledge for Development Center (A2K4D):
Nagla Rizk naglarzk@aucegypt.edu
Nadine Weheba nadine_w@aucegypt.edu

Berkman Center:
Rob Faris rfaris@cyber.law.harvard.edu

Abstract:

The Networked Public Sphere (NPS) has emerged as an influential alternative medium for disseminating information, sharing news and mediating collective action. Meanwhile digital media has had an increasingly visible impact on politics and the public sphere in the Arab region. Digitally mediated collective action continues to affect the political landscape in the region, especially in Egypt and Tunisia. Rigorous assessments of the Networked Public Sphere's impact, modalities, and relationship to collective action offline in the Arab region are still rare. This project had the objective to better understand the role of the Networked Public Sphere in civic and political life in the Middle East, with a particular focus on Egypt and Tunisia. This has required the design of a methodology that combines both quantitative and qualitative data collection through the use of digital tools for social media analysis with fieldwork on the ground in Egypt and Tunisia in the form of surveys, focus groups and interviews. The research has continuously evolved to reflect the dynamic nature of the role of the NPS as events continue to unfold in the region. This report reflects on the work undertaken over the course of the past two years by research teams from the Berkman Center for Internet and Society, the Access to Knowledge for Development Center, as well as at the Arab Policy Institute and Innova Tunisia.

Key words: networked public sphere, mobilization, Middle East, technology, Internet, civic engagement

Table of Contents

i. The Research Problem

The Networked Public Sphere (NPS), a term coined by Yochai Benkler (2006), has emerged as an influential alternative medium for disseminating information, sharing news and for mediating collective action. Meanwhile digital media has had an increasingly visible impact on politics and the public sphere in the Arab region. Digitally mediated collective action continues to affect the political landscape in the region, especially in Egypt and Tunisia. Rigorous assessments of the Networked Public Sphere's impact, modalities, and relationship to collective action offline in the Arab region are still rare.

The overarching research objective of this project has been to better understand the role of the NPS as an alternative platform for information sharing and mediating collective action with regards to political and social life in the Arab world. While apparent from the onset, the intricacies of prevalent sociopolitical, cultural and economic realities of the Arab World have increasingly influenced our understanding of the research problem. The timely nature of the research, as events continue to unfold in Egypt and Tunisia, has also directed the details of our inquiry, and in turn this has meant our understanding of the research problem has also constantly evolved, and new sub-questions emerged in light of events on the ground. Most importantly has been the evolving role and dynamic nature of the NPS in response to, and in reflection of, unfolding events. This has been apparent to us since the important turning point of June 30th 2013 in Egypt, which we have described in the first interim technical report. Polarization was observed as a key feature of the NPS since 2013, and this has been a focus of the research since in both Egypt and Tunisia.

Understanding the mechanisms by which traditional structures, including the state, powerful political actors, and the mass media, engage with and influence the Networked Public Sphere has also represented an evolution of our understanding of the research problem. The case study of the Tamarrod movement in Egypt has allowed for an inquiry into the intersection between online and offline spheres, and as such a reflection into the role of the NPS in mobilization in Egypt and the nodes that shape and influence the NPS itself.

ii. Objectives

This project's general objective has been to investigate and better understand the role of the NPS in political and social life in the Arab world. This specifically includes the role of the NPS as an alternative platform for information sharing and for advancing civic engagement and participation. The general objective has materialized into the following three objectives:

- *Objective 1:* Assess the role of the networked public sphere as it relates to civic society engagement in political and social action and compare this to activity in other spheres, including mainstream media, government and offline civic society, thus advancing on the theory, data, methods and tools for studying these phenomena.

- *Objective 2:* Improve the capacity and contribute to the field of scholars conducting research on the impact of the networked public sphere in the Arab region.

- *Objective 3:* Influence policy design for change through the dissemination of knowledge and lessons learned to policy makers as well as to formal and informal civic society organizations, focusing on the use of digital tools in civil participation and collective action generally, and also as this phenomenon pertains to policy initiatives on development-related matters (e.g., education, health and gender empowerment) in particular.

Objective 1: Research

The team has worked together closely to achieve the project's research objective. The research teams at the Access to Knowledge for Development Center (A2K4D) and Berkman, together with partners in Tunisia, designed complementary research methodologies to answer the following three research questions:

1: What is the structure of the Networked Public Sphere and how do different segments and platforms interact?

2: What content and topics are introduced and disseminated in the NPS?

3: How do the content, information and networks formed online relate to activity and information in other spheres, including mainstream media, government, and offline civic society?

Combining different digital tools with fieldwork instruments produced results that offer nuanced insights into the stories of the Networked Public Sphere in Egypt and Tunisia. To meet this objective the team has synchronized efforts to compare and contrast outputs from digital tools, such as Twitter and blogosphere maps produced by Berkman and analysis from Web Radar, with fieldwork on the ground in both Egypt and Tunisia.

Objective 2: Capacity Building

The project has worked towards fulfilling its capacity building objective through engaging researchers from computer scientists and software developers to entrepreneurs and practitioners together with engaging new and young researchers in both Egypt and Tunisia in this multidisciplinary project. The project has also allowed for researchers from the

region to work closely with partners at Berkman and for all teams to regularly communicate and share insights and meet face-to-face at different points of the project. For example, the project has enabled A2K4D to expand its research partnership with Innova Tunisia and the Arab Policy Institute, in addition to using one of Innova Tunisia's platforms, Web Radar, for data collection and analysis.

Objective 3: Dissemination and Influence Policy Design for Change

Throughout the project, the team has engaged civil society and policy makers at different levels through dissemination events (see list below). This has taken place at A2K4D's annual public workshops that bring together A2K4D's research partners and members of the Center's international networks with civil society, policy makers, students and other academics. The teams from Berkman, A2K4D and Tunisia have shared progress on research and solicited feedback from the audience at these events, in addition to collaborating on a talk hosted by the Berkman Center at Harvard Law School in April 2015. The diverse audience at these events has meant discussions have expanded to include relevant topics including the use of digital tools for a number of development related matters, including gender empowerment and employment.

List of dissemination events:

June 9 2015: The Arab Networked Public Sphere post 2011: Research Findings from Egypt and Tunisia (A2K4D's Fifth Annual Workshop, at the American University in Cairo (AUC).

April 27 2015: The Arab Networked Public Sphere: Social Mobilization Post-Revolutions (Harvard Law School).

June 16 2014: Session 2: The Networked Public Sphere and Civic Engagement, Reflections on Egypt and Tunisia (A2K4D's Fourth Annual Workshop, at AUC)

June 16 2013: Networked Mobilization for Change in the Arab Region (A2K4D's Third Annual Workshop, at AUC).

Project outputs are currently being translated into Arabic for wider dissemination and impact in the region amongst civil society and policy makers. Accordingly, there is a need to engage in further dissemination activities to share outputs and lessons learned and engage a wider community of stakeholders. This includes project researchers participating in events to disseminate the research, hosting workshops and gatherings of stakeholders and versioning outputs in both Arabic and English to reach wider audiences and have a more sustainable impact.

iii. Methodology

This project has adopted a theoretical framework grounded in Benkler's (2006) theory of the Networked Public Sphere. This draws on the premise that digital technologies have the potential to reduce costs and risks of individual's participation in civic life and may facilitate individual motives for civic participation. This has meant a consideration of shifts in both individual incentives and actions and changes in the processes and mechanisms in which communities form and collective action emerges. At the onset of this project we had expected civic and political activity to rise online and for online campaigns to spill out into offline activity and vice versa.

The project combined different methodologies to achieve its research objective of documenting both political and civic activity online, and exploring its interplay with mobilization taking place online and offline. Indeed, studying the intricacies of the dynamics between the offline and online spheres has become a central focus of the research that took place in Egypt and Tunisia through the use of various fieldwork instruments to complement analysis using digital tools. The digital tools have been designed to study different segments of activity online, to explore the structure of online networks and the nature of participation online in addition to the content of online engagement.

The initial design for research outputs involved three research papers to address each of the research questions separately, in addition to a synthesis paper for all results. As the project has evolved, teams at Berkman, A2K4D and in Tunisia have agreed that the project's three research questions are highly interrelated and so the nature of the research lends itself better to country studies from Egypt and Tunisia that explore the content and structure of the Networked Public Sphere in each country, while examining the intricate relationship between the online and offline spheres. These studies combine social media analysis and fieldwork to answer the project's research questions. The team at Berkman has produced a research paper that explores both the shape and structure of the Arab Networked Public Sphere by generating and analyzing views in the form of blogosphere maps and Twitter maps of Egypt, Tunisia and Bahrain. The different outputs complement each other with an analysis of the Arab NPS based on mapping, coupled with more detailed country studies combining both mapping and fieldwork.

Access to Knowledge for Development Center

Through fieldwork and social media analysis, A2K4D has examined how a growing Networked Public Sphere intersects with a fast-changing political space in the case of Egypt from 2013 to 2015, with reflections on earlier periods. As indicated in previous reports, this was implemented by studying the phenomenon of violence and through investigating the Tamarrod campaign. In terms of fieldwork, A2K4D has organized and administered 3 focus groups (with a minimum of 8 participants each) and a series of interviews throughout the course of the research with active online users from across the political spectrum in Egypt who have engaged differently with political events.

A purposive sample was taken to capture accounts from representatives from across the political spectrum in Egypt, which has grown increasingly divided over the studied period. The first focus group was conducted in the summer of 2013 with a group of early adopters, representing veteran activists whose ideologies span the political spectrum.

The second and third focus groups were conducted throughout 2014, in the aftermath of the ouster of the Muslim Brotherhood regime. In paralleling the dominant division on the ground, these focus groups were divided into regime-aligned or state-aligned respondents who generally support the current military regime and non-aligned participants who did not side with any of the prominent political players on the political scene. A third group[1] of respondents were Islamist sympathizers and members of the Muslim Brotherhood. They were interviewed individually in the summer of 2014,[2] given the security repercussions of organizing a focus group at the peak of government persecution of Islamists.

A series of questions[3] were used as an open-ended base for the focus groups and interviews. These included questions on the history and nature of participants' online engagement and nature of political activity. Questions also centered around violence as a major political development and how participants reflected on this both online and offline, especially in terms of the forced dispersal of the Muslim Brotherhood sit-ins. Finally, respondents were asked to reflect on online debates between 2013 and 2014 compared to 2011 and as such asking them to map the evolution, in their perspective, of the Networked Public Sphere over the past five years.

A nationally representative survey of 1055 respondents over the age of 18 was conducted in early 2015 to map the role of the Networked Public Sphere in Egypt between 2013 and 2014, with a specific focus on the viral Tamarrod signature campaign which intersected both online and offline spheres. The survey was administered in collaboration with a professional social science research organization, the Egyptian Research and Training Center (ERTC), and is structured into four sections. The first involved a series of questions around respondents' media use and consumption, followed by a second section with a series of questions around political participation both online and offline. The third section contained a series of questions on the different online and offline networks through which respondents interacted with the Tamarrod campaign. The final section included a series of comparative questions between 2011 and 2013-2014 in terms of general political engagement and networks of influence in decision-making. The survey was developed initially in English by the A2K4D team in close collaboration with ERTC and then translated to Arabic by ERTC and reviewed by A2K4D. The survey was administered in Arabic. The tool is informed by background research and in-depth interviews with Tamarrod's co-founders, who helped frame questions on the campaign's mechanisms of

---

[1] The identification of these groups is corroborated by the insights coming from blogosphere mapping conducted by the Berkman Center for Internet and Society.
[2] Five in-depth interviews were conducted.
[3] Focus group and interview scripts are attached in the Appendix

mobilization and organization. Fieldwork was complemented using Web Radar[4] to study social media activity online.

Innova Tunisia and Arab Policy Institute

Team members from the Arab Policy Institute and Innova Tunisia conducted fieldwork in the form of a survey of 1050 respondents together with three focus groups and combined this with analysis of online content using Web Radar. The survey was conducted in partnership with market research and opinion polling firm, Sigma Conseil. The survey instrument is structured into questions around Internet and social media usage patterns and perceptions of the impact of social media on civic engagement, with a focus on particular events identified previously such as the assassination of opposition leader Chokri Belaid in February 2013 as well as the Bardo sit-in that took place in July 2013. The survey was developed and administered in Arabic and French, which are used interchangeably in Tunisia. The script was then translated to English for reporting purposes.

Three focus groups were conducted in early 2015. The first group involved participants who were active online, especially on Facebook, which is very popular in Tunisia, but not active on the ground politically. Participants in the second group were active both online and to some extent offline. The third group of participants was categorized as 'activists,' with active participation both online and offline. Questions revolved around perceptions of and experiences with demonstrations and mobilizations. Questions also included ones centered on participants' motivation to participate and the nature of this participation.

Researchers and techies at Innova Tunisia have developed and used Web Radar. This tool allows for the collection of a large sample of public content from the Internet, including social media conversations and implements data crawling, analysis and querying features for several Arab countries. The sample size captured by Web Radar is 33 million articles and publications on blogs, forums and social media in Tunisia and Egypt during the years 2012 to 2014, and 3.7 billion social interactions of users with the collected content items.

Berkman Center for Internet & Society

The team of researchers at the Berkman Center produced and analyzed four social network maps: a region-wide map of the blogosphere, and Twitter maps for Egypt, Tunisia, and Bahrain. These network maps offer a perspective on important portions of the network public sphere and reveal the topics and communities that publicly express their political and social ideas in the digital sphere. The data collection and production of the maps were carried out in collaboration with John Kelly at Graphika, a social media analytics firm based in New York City.

The analysis was conducted by Berkman Center researchers. After collection and cleaning of the raw data, the maps are produced using a computation system for rending social

---

[4] Web Radar is developed by Innova Tunisia and is an online data collection tool that captures and analyzes data from a number of online platforms including news websites, Facebook and Twitter.

network maps. Each map is comprised of between 10-12,000 individual nodes: for Twitter, each node is a user account, and for the blogosphere map, each node is an individual blog. The interpretation and analysis of the network maps—and the nodes and communities represented in each map—is an intensive process that requires regional experts to review a large number of nodes in each of the communities and summarize the social, political, and cultural ideas reflected in the structures and discussed among the participants in the maps. This analysis of the structures manifest in the mapping process is facilitated by a review of metrics derived for the nodes and clusters.

Many of the insights from this portion of the study are derived from comparative analysis. The differences and similarities between the three Twitter maps highlight the variation of issues addressed in the networked public sphere across the three countries and range of social structures underlying the online debates and discussions. The blogosphere map based on data collected in 2014 is compared against a similar effort conducted in 2009. The analysis sheds light on the evolution of the networked public sphere over time in the region.

Merits and challenges of different tools:

A. Focus groups, interviews and surveys

Focus groups and interviews are flexible tools that provide a space for less structured and more in-depth qualitative data collection. In the case of this research this has been useful to provide detailed examples and personal accounts to complement larger scale results from social media mapping. The challenges of using these tools has been relatively smaller sample sizes and, given a context of political contagion, the difficulty to arrange such gatherings of individuals and the reluctance of stakeholders to participate.

Nationwide surveys have the ability to capture large amounts of data from a large sample size, in the case of Egypt and Tunisia over 1000 respondents. It also allows for a cross examination of different variables together. This quantitative tool provided data in a different form to that collected using interviews and focus groups and proved useful for cross validation of the more qualitative insights. The challenge for researchers has been to accurately translate research questions into survey questions with quantifiable responses. Political context and the nature of a number of the survey questions has meant that the team has had to exercise a degree of self censorship in developing survey questions with the help of a professional survey design and implementation company. The translation of survey questions from English to Arabic and back without making significant changes to the meanings of terms has also been challenging and has required continuous efforts by the A2K4D team to review and adjust translations accordingly.

B. Digital tools

Web Radar

Web Radar, developed by Innova Tunisia, is a social media mapping and online data collection tool that captures and analyzes data from a number of online platforms including news websites, Facebook and Twitter. Its merits include studying online behavior and capturing unconscious perceptions in users' minds, which complements more conscious patterns and perceptions collected using fieldwork instruments. Web Radar allows for automatic data collection for the growing amount of data produced on social media platforms and news websites in the region. It also allows for real time analysis of public opinion using big data technologies. Web Radar has proven to be easy to use and researchers have been trained to use the tool. Being user-friendly means social scientists can use Web Radar directly and customize it according to the research questions they are trying to answer. The tool can also be used to produce visualizations of results that are useful for cross validating insights from fieldwork. The platform's challenges include potentially missing new or relevant content sources as these increase at unprecedented rates. Also Facebook and Twitter's API query limits mean that in the case of Twitter the tool can capture up to 3600 old tweets from a given twitter account.

Network Mapping of Twitter and Blogging Communities

Network mapping offers an aggregate landscape view of portions of the networked public sphere based on longer-term relationships among participants in a country or region. The resulting maps offer distinct and powerful perspectives on underlying sociopolitical dynamics of the countries under study and reflect emergent communities in the networked public sphere that would not be observed or studied by other means. It also reveals the topics and perspectives that attract the most attention in this portion of the digital media system and draw together communities with common interests. Additionally, the network map allows researchers to observe the key organizations and individuals that lie at the heart of different communities online. Comparing networks over time and comparing data from different countries lends further insights on the evolution and dynamics of the networked public sphere. The mapping provides a longer-term landscape view and framework for regional researchers to engage in more detailed qualitative analysis.

The challenges of using network mapping include the need for distinct efforts to study and interpret different segments of the sphere, e.g. blogs, Twitter and Facebook. This may potentially also result in different conclusions depending on the researchers' objectives and questions. Furthermore, topics that are of importance to smaller portions of the networked public sphere may be overlooked.

iv. Project Activities

Available resources have been used for a number of different research, capacity building and dissemination activities, in addition to contracting consultants and researchers and covering the costs of their associated activities, such as attending workshops and conducting training on software developed as part of the project (a schedule of project activities is attached). Especially important to the success of the project has been the constant efforts by all team members to synchronize activities and the overall project direction. This was achieved via regular contact via Skype and email and also at biannual face-to-face meetings.

Access to Knowledge for Development Center

A2K4D has used allocated resources for a number of research, capacity building and dissemination activities. The Arab Policy Institute and Innova Tunisia were selected as research partners in Tunisia in 2013, with the purpose of expanding the scope of the study in the region and engaging and building the capacity of new multidisciplinary researchers. This involved work both on the ground conducting fieldwork and developing digital tools in the region to study online behavior and social media use. Activities in Tunisia commenced in Q1 2014 and have included developing Web Radar to study, amongst other things, Facebook which is especially relevant and important in the region. Activities in Tunisia have also included the identification of particular events and mobilizations to study both online, where Web Radar has been used to collect considerable amounts of data, and offline via surveys and focus groups conducted in Q1 2015.

At A2K4D, activities included a review of literature conducted by A2K4D researchers and affiliates working on this project, which has informed the framing of research questions and subsequent fieldwork in Egypt. The review of literature commenced with the start of the project until Q1 2015 to incorporate any new material given the timely nature of this topic. Fieldwork in the form of focus groups, interviews and a survey commenced in Q3 2013 and ended in Q1 2015. This involved the conceptualization, design, implementation and analysis.[5] Resources have also been dedicated to the production of final project outputs in the form of a country study and an initial translation of this study and other outputs from project partners into Arabic for wider and more effective dissemination and impact.

In terms of capacity building, in addition to engaging Tunisian researchers, A2K4D has hosted a series of meetings throughout the course of the project for the research team. The A2K4D team has visited the team at Berkman and visited Tunisian partners for meetings and training on Web Radar administered by Innova Tunisia. This was a great opportunity for the software developers to get feedback from A2K4D researchers on how to make the tool more user-friendly for social science researchers.

In terms of dissemination, A2K4D hosted three public talks over the course of the project where project partners shared progress and insights with a diverse audience, including members of civil society, policy makers, activists, academics and students. These talks

---

[5] For details, please see the attached project activities schedule

were held in June 2013, June 2014 and June 2015. A2K4D team members also participated as panelists in a public talk hosted by Berkman Center at Harvard Law School in April 2015.

In terms of the actual research implementation, the team at A2K4D conducted all focus groups and interviews, rather than externally contracting consultants to conduct them. The richness and high quality of data collected has outweighed the logistical challenges of administrating this part of the fieldwork. This has been instrumental to the success of the project. Given the large sample size, the survey was conducted by a professional consultant company in close collaboration with the A2K4D team.

Berkman Center for Internet & Society

The Berkman Center has devoted time under this project to carrying out research; networking and capacity building; and communication and outreach. A primary emphasis of the work undertaken under this grant has been to coordinate activities with our collaborators in Egypt and Tunisia, and to share in the development of expertise and knowledge. Significant time, particularly in the first two quarters, was invested in developing the overall research approach. This process was conducted in close collaboration with A2K4D. The research was designed to produce complementary research flows. Continual adjustments to the approach were made over the course of the project based on shared lessons.

The regular working meetings of the multinational research team were excellent opportunities for sharing insights, theories, research strategies, and methodological approaches. Project meetings in Cairo and Cambridge broadened the set of researchers and practitioners that were able to inform and learn from the project. The public events and conferences offered a wider audience for sharing the collective lessons and insights from the effort. Over the course of the project, several dozen researchers were involved in the development of the project, including faculty, senior researchers, students, and researcher assistants in Cambridge, Cairo, and Tunis. The public events in Cambridge and Cairo reached several hundred people, including researchers, activists, and policy makers.

A major portion of the effort by the Berkman Center was devoted to developing and analyzing the network maps. This core research commenced in the first quarter of the project and continued over the duration of the project. The research team iterated through several versions of the maps before settling on the final versions included in the research report. The analysis and writing of the report was the primary focus of the final two quarters of the project.

The Berkman Center has developed a web site to host project materials and extend the period of engagement with a broader community. Once translations of the core research papers and materials are completed, a fully bilingual web site will be launched to further expand the reach of the research.

v. Project Outputs

Research

Research papers and reports:

Versions of these research papers will be submitted for journal publication. Research outputs are also in the process of translation into Arabic for future dissemination efforts. Below are tentative citations:

1. The Networked Public Sphere and Civic Engagement: Egypt Study (2015) Access to Knowledge for Development Center, American University in Cairo.
2. An accelerated story of the emergence and transformation of the Networked Public Sphere: Tunisia case in point. (2015) Arab Policy Institute and Innova Tunisia.
3. Mapping the Arab Networked Public Sphere. (2015) Berkman Center for Internet & Society.
4. Civic Engagement and the Arab Networked Public Sphere: a synthesis of research findings. (2015) Access to Knowledge for Development Center and Berkman Center for Internet and Society.
5. Studying the Networked Public Sphere: a note on methods. (2015) Access to Knowledge for Development Center and Berkman Center for Internet and Society.

Capacity Building: training researchers and involving stakeholders and policy makers
1. The project has engaged researchers from Tunisia and has enabled developing their capacity as researchers to conceptualize, design and implement research.
2. A2K4D has benefitted in terms of individual and organizational capacity development whereby researchers' skills have developed in terms of proposal writing and research conceptualization, team management and supervision of more junior researchers and actual research implementation as well as synthesis of outputs. Concurrently to this grant and as a result of experience with this project, researchers from the center have been involved in the successful planning, proposal writing and soliciting of funds for other projects.
3. Innova Tunisia has trained 4 A2K4D team members to use Web Radar.
4. Research team members at A2K4D, Berkman and Tunisia have, as result of this project, participated and contributed to North-South dialogues and debates around the subject of technology and civic engagement and shared the unique perspective of the Arab region.
5. Young researchers in Egypt, Tunisia and at Berkman have engaged closely together over the course of the project both online and face-to-face and established relationships with potential for future collaboration.

Policy and practice:

1. Stakeholders were involved as direct participants in focus groups and have benefited from reflecting on their use of online tools.
2. Civil society, activities and policy makers were also involved in soliciting feedback on research through public talks held at different points over the course of the

project.
3. The team at Berkman has developed a website for dissemination of research outputs. This is an interactive platform with the options to share on various social media platforms and also to engage with audiences via comments and feedback
4. Further dissemination plans for policy impact and engagement of stakeholders: As research is completed, project research outputs in addition to a video recording of the team's public talk at Harvard in April 2015 are being translated and subtitled to Arabic. This will enable more effective dissemination of results and will contribute to further extended discussions with civil society. This allows for more sustainable impact as sustained capacity building and potential policy impact are best achieved via more longer-term engagement and efforts.

vi. Project Outcomes

Contribution to research or knowledge innovations:

- The project's research outputs and initial dissemination efforts have had the objective of making a contribution to literature and debates on the dynamic topic of new technologies and mobilization in the Arab region. The project's unique mix of analysis using digital tools at Berkman and in the region at Innova Tunisia, together with fieldwork conducted on the ground in Egypt and Tunisia means the results offer a nuanced account of the experiences of these countries. These experiences have been at the center of global debates on the subject. The project has also contributed to innovations in the region to develop digital tools such as Web Radar to study social media.

Changes in the capacities and relationships of researchers, networks and research institutions:

- A2K4D is part of growing regional and global networks. The center is the North African Hub of the Open African Innovation and Research partnership (Open A.I.R.). A2K4D is a founding member of the Access to Knowledge Global Academy (A2KGA) with partners at Yale Law School's Information Society Project (ISP) in the United States in addition to partners in Brazil, China, India and South Africa. A2K4D has also recently become part of the Global Network of Internet and Society Research Centers (NoC). The project has contributed to further growing A2K4D's research relationships with partners in Tunisia and at Berkman. The project has also resulted in the creation of a network of researchers at Berkman, A2K4D and in Tunisia at the Arab Policy Institute and Innova Tunisia. This lays the groundwork for a potentially larger research network between institutions in the region and other partners. Members of the projects' research team have also met and engaged with A2K4D's other partners at A2K4D's annual workshops over the course of the project. Young researchers amongst the three teams have also established relationships through meeting several times face-to-face and regularly online and so set the scene for future contact and collaboration.
- As a research institution with a leading role in this project, A2K4D's capacity has developed as it has managed and closely supported research with Tunisia and synchronized this with ongoing research in Egypt and at Berkman. This is in addition to actively contributing to other research activities underway in Egypt.
- The lessons and insights from this project have informed and instigated a shift in the focus of research into the networked public sphere at the Berkman Center and A2K4D towards a greater emphasis on understanding the opportunities and limitations of civic engagement in a polarized digital environments.

Policy Influence:

- The project has engaged policy makers and members of civil society organizations at A2K4D's annual workshop where stakeholders discussed and debated research results.
- Fieldwork in Egypt brought together and engaged techies and activists together with researchers in close collaboration. Focus groups and interviews also offered a space for stakeholders for reflection, introspection and self-criticism on their use of digital technologies. This was beneficial to stakeholders from civil society as they devise new and creative ways to use digital technologies for civic engagement.

Technology development, adoption, and adaptation
- The project has contributed to the development of social media mapping software both at Berkman and at Innova Tunisia. This software has been also adapted to study the region and researchers from A2K4D are now trained to use it for further research and analysis.
- At the Berkman Center, the development of the Media Cloud platform is focusing now on bringing in a greater range of media sources and new platforms as a direct result of the experiences in the project.

Lessons about approaches or broad design elements for conducting research, building capacity or influencing policy or practice in the field and circumstances of the project? What problems arose, and what changes in orientation occurred? Were certain aspects of project design particularly important to the degree of success of the project?

- Combining both digital tools with fieldwork over the course of the project in Egypt and Tunisia proved to be a successful strategy in light of the timely nature of the research as events continue to unfold at a rapid pace in the region. This dynamism was captured in interviews and focus groups and these semi-structured tools allowed for flexibility and space for discussion. This was complemented by analysis using digital tools where changes observed in mapping and social media analysis were translated into points of inquiry with specific examples during fieldwork and vice versa. This has resulted in research findings that provide in-depth local insights to corroborate digital analysis within a theoretical framework of the Networked Public Sphere.
- In terms of capacity building, close collaboration between the different research hubs within the project has reinforced their relationships together and expanded their respective networks. Additionally, collaboration has enabled the teams to closely engage in the development of methods and share different perspectives. This has better enabled the team to address research questions and challenges as they arose during the course of the project.
- Taking a multi-faceted flexible approach to the research proved to be valuable, particularly as it became necessary to shift emphasis away from the link-based modeling methods that turned out to be ill-suited to studying media interactions in the region.

Lessons from the experience

- Researchers on the project working in Egypt also developed fieldwork design, management and implementation skills that are unique to a context of political contagion and censorship. The political environment in Egypt in the aftermath of the ouster of former president Mohamed Morsi in mid-2013 meant Islamist sympathizers were reluctant to come together for a focus group and so the team had to adjust plans and instead conduct individual interviews. This was a challenge in terms of being able to recruit enough participants and resulted in spending a prolonged period of time collecting the data as opposed to a single focus group. The interviews did, however, enrich results with in-depth insights. Researchers also managed challenges including reviewing and rephrasing survey questions to ensure they accurately probed required areas whilst guaranteeing approval from relevant regulatory bodies in Egypt that are mandated to review and censor all nationwide surveys.

vii. Overall Risks and Recommendations

Benefits of relationships with Canadian or other researchers, institutions or donors

- Research partnerships with Berkman Center and with Innova Tunisia and Arab Policy Institute have been instrumental to achieving the project's research, capacity building and policy influence and dissemination objectives. The collaboration has meant a more effective research design and implementation and has built capacity amongst young researchers in all teams and expanded the scope of researchers working on the subject in the region. This has meant a contribution from the region to the growing number of studies on the subject. The team has also been able to disseminate progress and initial results both at AUC and at Berkman via public talks to different audiences as well as engaging in networking during a visit to Tunisia.

Contributions to development

- The project has made a modest contribution to a more nuanced understanding of both historic and more recent events in Egypt and Tunisia from the lens of technology and change. It has also provided a platform for stakeholders to reflect on their usage of technology.

General and useful lessons for improving future projects

- Direct access to the key civil society participants was critical towards providing focus and ground trothing for this study.

- Combining qualitative and quantitative research methods provided diverse and valuable sources of information for this study. The rich informational foundation of the study would not have been possible if either was missing.

- It is beneficial for the project's design and development to engage closely with experts in the field from the onset of the project and at intervals throughout. This enables all teams to clarify definitions of research and theoretical concepts and to synchronize research design and activities. It has been especially beneficial for the full research team to meet with Yochai Benkler last April 2015 at Berkman.

Value and importance of the project relative to the investment of time, effort, and funding.

- The project has established research relationships between institutions in three different countries and this paves the way for future collaboration and engagement. It has also built capacity and relationships among young researchers in Egypt, Tunisia and the United States.

- The topic under investigation is timely in nature as actual events continue to unfold on the

ground. As such, the importance of studying this subject at this moment in time and capturing both 'digital' behavior and stakeholder's recollection of actual life experiences while they remain recent in their memory is likely to prove to be important and useful for future research and for longer term policy influence or change.

- The scale and scope of research activities were important to the advances made in this project. Combining different methodological approaches made a substantial contribution to the research effort. A second factor that was particularly helpful to the research team was being able to conduct comparative analysis, both across different countries and comparing the evolution of the networked public sphere over time.