An Exploratory Study of Risk and Social Media: What Role Did Social Media Play in the Arab Spring Revolutions?

Stephanie Davison
Doctoral Student
University of Southern Mississippi
Department of Political Science and International Development
200 South 15 Avenue, 17
Bozeman, MT 59715
Email: skdavison80@gmail.com

Abstract

Individuals from six "Arab Spring" countries were asked about their willingness to take risks during civil unrest in their countries. In the wake of the Arab Spring conflicts, there is much speculation as to why the revolutions occurred when they did and what caused them to spread across the Arab region so quickly. Much of the existing research uses data from secondary sources to demonstrate that social media use was ubiquitous during the Arab Spring. This study examines personal, written responses from individuals living in Arab Spring countries during conflict with their governments. Individuals were asked to respond to questions about their use of social media during civil unrest and about risk in relation to social media use. Results indicate that social media was used to document and organize the protests, to motivate people to take action, and that individuals took risks by joining the movements.

Keywords*: Arab spring, revolution, social media, conflict, risk, mobilize, protests*

Introduction

Since the late 1980s, scholars have wondered if communication facilitated by technology would play a role in the creation of democracy as people's networks expanded and information was disseminated more easily and rapidly (Castells 1996; Norris 2001, Quan-Haase, Wellman, Witte, and Hampton, 2002; Chokoskvili, 2011; Nigam, 2012). Chokoskvili (2011) found that when certain societal conditions exist that Internet technology may fuel citizen discontent by providing them with access to larger networks and with the freedom to speak and to associate.

Mohamed Bouazizi's December 2010 self-immolation in Tunisia set off a flurry of protest through social media communication, leading to the so-called Arab Spring in which citizens across the Arab world protested, in earnest, against their governments. Kavanaugh, Yang, Sheetz, Li and Fox (2011) studied social media such as Twitter, Facebook and YouTube for evidence of postings during the start of country rebellions, finding that in-country and out-of-country users were responsible for spreading the word about upcoming demonstrations and protests.

Although revolutionary activity is not a new phenomenon, the use of social media as a way to propel revolution is new. In autocratic societies where freedom of speech not only is crushed but also is punishable by extreme measures such as jail or even death, the risk associated with speaking freely is enormous. Does the potential anonymity[1] associated with the use of social media cause people using it to take more risks than they would otherwise?

[1] Some would argue that using social media is less anonymous because so many people have access to Facebook pages, YouTube videos and much more that is posted on the Internet; however, people can, and do, invent false identities on social media sites, to protect themselves, or sometimes to cause harm to others (cyberbullying). Here, anonymity means that social media potentially allows an individual to remain unseen. In the context of anti-government rhetoric, anonymity could be useful and desirable.

The purpose of this article is to examine the ways in which risk and social media are related, specifically in reference to the Arab Spring revolutions. In order to examine this relationship, questions about social media use, risk and the relationship between the two were disseminated to individuals living in Arab Spring countries. Responses to these questions help to explain how social media was used during the Arab Spring protests and to explain the kinds of risks people took.

Definitions

Social Media

Social media is defined as Web 2.0 or the Internet-based platform in which web applications and content is collaborative and "participatory" (Kaplan and Haenlein, 2009, p. 61). This definition includes Facebook, Twitter, Google, YouTube, Wikis, blogs and any other interactive media. User-generated content (UGC) such as videos or blogs which allow for immediate feedback is one of the ways news about protests and events spread so quickly during the Arab Spring revolts. In the era of Web 1.0 (personal, non-collaborative or non-interactive web pages) (Kaplan and Haenlein, 2009), it may have been more difficult to mobilize large groups using social media.

Risk

From a psychological perspective, risk is defined as any behavior where uncertainty is perceived, either uncertainty about the outcome or about the possible "benefits or costs for the physical, economic or psycho-social well-being of oneself or others" (Trimpop, 1994, p. 9). While there are numerous quantitative theories of risk that calculate probabilities (Trimpop, 1994), those theories do not explain well how culture and context affect risk-taking behavior.

The idea that risk-taking behavior is affected by one's perception of uncertainty related to their actions is most relevant to the Arab Spring revolts.

Literature Review

Social Media, Social Movements and Risk

Communication tools such as the Internet, satellite television and mobile phones have been used to mobilize people for more than a decade and their use in Arab countries continues to increase (Comninos, 2011; Hofheinz, 2005). Hofheinz (2005) says that Arab citizens like to use the Internet to engage in discussion because there is "a growing assertion of the individual as an active speaker and decision-maker, not a passive recipient of authoritative discourse…" (p. 90). People who actively engage in discourse believe they have a chance to bring about change in the world. "The change that is considered is a change of personal attitude and belief, and it is first acted out virtually, on the forums, where everyone can have a voice and everyone is empowered to speak" (Hofheinz, 2005, p. 92). If it is true that dialogue and discussion empower people to try to change their worlds, social media discourse may lead to behavior previously not considered such as participating in anti-government protests or rhetoric.

There are two lines of thought in the current literature about social media's role in the Arab Spring uprisings. The first is that social media's role was minimal and provided a tool for planning, but that its use was not a motivating factor; rather, historical, political and socioeconomic reasons were motivators (Anderson, 2011; Comninos, 2011; Gladwell, 2010). The second line of thought is that social media played a significant role by mobilizing people, giving them a space to express their dissatisfactions, to increase solidarity around a common cause, and to organize themselves (Harb, 2011; Kavanaugh *et al.,* 2011; Khamis and Vaughn, 2011).

Social movement theories help explain how and why people are motivated to participate in social movements. Framing theory posits that social entrepreneurs frame discourse in order to highlight master frames. By doing so, they exaggerate and/or bring attention to injustices that are occurring at the hands of oppressors. By amplifying master frames, movement cycles are prolonged as more people get involved (Buechler, 2011). As Garrett (2006) argues, social media and information technology can "accelerate and geographically extend the diffusion of social movement information and of protest…For example, news coverage of protest activity in one location can increase issue salience across a much broader region, potentially motivating future actions elsewhere" (p. 207).

Cognitive liberation is the notion that when people feel as though their involvement will make a difference, based on the "'subjective meanings they attach to their situations'" (McAdam, 2013) they are ready for action. McAdam (2013) argues that without cognitive liberation, collective action will not occur. Social media and the images of crowds of people peacefully protesting, along with an early "victory" in Tunisia motivated people to action.

Mary Douglas' (2010) Cultural Theory (CT) of risk provides a framework for understanding individual risk-taking behavior as a contextual decision, driven by interaction with and understanding of one's cultural and/or group settings. A grid/group typology helps explain how people act on the world around them.

Social amplification and ripple theories of risk explain how fears about environmental or other societal risks spread, often rapidly (Kasperson, R., Renn, O., Slovic, P., Brown, H., Emel, J., Goble, R., Kasperson, J. and Ratick, S., 1988). Amplifying the potential dangers associated with environmental hazards such as nuclear power, for example, can propel people to take action. Similarly, amplifying the messages associated with the Arab Spring protests pushed people to

take risks. Social contagion theory is the idea that ideas and behaviors are contagious within networks. Following is a more in-depth review of the literature as it relates to the research questions.

Social Media

Rather than Facebook, Twitter and YouTube, telegraphs and broadsheets were used to communicate information during early 20th century uprisings in Egypt, Tunisia and Libya (Anderson, 2011). Anderson (2011) argues that while the media used to disseminate information is different than it was in the early 20th century, the underlying economic and social issues are the same. For example, political repression and corruption by former President Zine el-Abidine Ben Ali's "Family" in Tunisia were some of the important reasons for the 2010-2011 revolts (Anderson, 2011). And, corruption and "the government's deteriorating ability to provide basic services and seeming indifference to widespread unemployment and poverty" (Anderson, 2011) precipitated revolts in Egypt. In other words, unstable economic, social and political conditions in Arab states made them ripe for revolutionary activity. Indeed, as Khondker (2011) argues in reference to Egypt "the most important underlying factor was the presence of revolutionary conditions and the inability of the state apparatus to contain the revolutionary upsurge. In this schema, social media was a vital tool—a necessary condition—especially in the face of a muzzled conventional local media, but a tool nevertheless" (p. 678).

Malcolm Gladwell (2010) argues that social media helps people network and provides a space for discourse, but does not lead to behavior that puts them at considerable risk. High-risk activities such as sit-ins, boycotts, and nonviolent people-to-people confrontations require strategic thinking and planning to be effective, and Gladwell believes social media lacks the necessary network ties. While sit-ins and demonstrations are impossible to reproduce virtually, it

is difficult to imagine that speaking out against an authoritarian government that suppresses free speech is not a high-risk activity. Indeed, Kahled Said's death in Egypt, which prompted the Facebook group, "We are all Kahled Said" was a result of high-risk engagement with social media (Saddy, 2011). After posting a video showing Egyptian police dividing the drugs from a bust they had made, the police beat Kahled Said to death (http://english.ahram.org.eg/News/43995.aspx).

Comninos (2011) believes the 2011 protests in the Arab world were brought to the world's attention through social media platforms, but social media, alone, did not inspire them. For example, mobile phones and other forms of Internet networking were used in Moldova and Iran in 2009 and text messaging was used in the Philippines in 2001 as a way to mobilize support against the president. In 2004, Egyptian activists of the Kefaya Movement, opposed to President Hosni Mubarak's intention to run for a fifth term (Lim, 2012), used mobile phones and the Internet to spread their messages and to call for street protests. When Khaled Said was murdered in 2010, Google employee, Wael Ghonim created a Facebook page called "We are all Khaled Said" and urged people to gather in Tahrir Square to protest policy brutality (hashtag #Jan 25th) (Joffe, 2011). As della Porta and Diani (2006) argue "in actions of this kind, activists are willing to run personal risks to demonstrate their convictions and reinforce the moral message being conveyed by their protest" (p. 176). Social media and other forms of communication were used prior to the Arab Spring, but the resulting protests were much smaller in scope and influence.

Khamis (2011) describes a perfect storm of "political activism in the real world, aided by cyberactivism in the virtual world….to find the missing link between public anger and resentment of the ruling regime(s) and actual public mobilization…" (p. 1164). Social media was used during the Arab Spring revolts to educate, organize, encourage public opinion, and mobilize

support (Khamis, 2011). Egyptian, Tunisian and other activists in countries where freedom of expression was repressed were able to use social media to evade censorship so that its use in the context of political and civic engagement had some protective factors (Khamis, 2011).

Harb (2011) thinks that social media was a "mobilizing tool" used to disseminate information not only for internal organizational purposes, but also to inform the outside world which offered encouragement and support for the cause. When the Egyptian government tried to suppress the uprising by cutting off Internet communications, Google and Twitter provided alternative means of communicating so citizens were not cut off from the outside world. International solidarity, as experienced through social media, seems to have played a role in motivating people to participate in civil unrest. Indeed, the Western media "gave legs" to the story of the Arab Spring and provided social pressure to the movements (Saddy, 2011, p. 32). The ability for citizens to document, in real time, what was happening on the streets was important as a motivator to others who, without social media may not have been able to witness what was happening.

The use of social media was important and effective in the Arab Spring revolutions to the extent that citizens were empowered to take action because of the networks that were created. Debate continues as to its ultimate role in the process of the various and specific country revolutions, but there is no question that many people took risks by using social media. Whether they took those risks because they felt safer as a result of social media's potential for anonymity, because they were part of a large group (safety in numbers) or because they had experienced some freedom through social media use and the consequent exposure to the rest of the world, is to be determined.

Social Movement Theories – Framing and Cognitive Liberation/Political Process

Framing is the process of meaning construction, in this case, within the shared context of the Arab Spring revolts. Movement leaders used social and traditional media sources to create frames that motivated action by using language and images that encouraged urgency (Benford and Snow, 2000). In particular, injustice frames motivate people to action by identifying issues in terms of unfairness and immorality and by amplifying injustice and victimization (Benford and Snow, 2000), creating "emotionally charged" situations (Taylor, 2000, p. 511). Through social media blogs, tweets, photos and news stories, the injustice frame was extended across the Arab world, especially around the murder and death of Said and Bouazizi. As people witnessed, on their Facebook feeds, violent acts by the state against citizens the movements became more credible.

The media helped frame the role of protest groups either by refusing to acknowledge their actions or by dramatizing them. As Lipsky (1968) argues "if protest tactics are not considered significant by the media, or if newspapers and television reporters or editors decide to overlook protest tactics, protest organizations will not succeed. Like the tree falling unheard in the forest, there is no protest unless protest is perceived and projected" (p. 1151). In the case of the Arab Spring revolts, protest activities were well-documented through social and traditional media sources such as Al-Jazeera which promoted and sought UGC in order to reflect live, real time activities (Kaplan and Haenlein, 2009). The more widespread the protest activities became, the more they provided legitimacy to the overall cause.

Cognitive liberation occurs as people construct meaning about what is going on around them and come to the realization that, as a group, they can affect change (Buechler, 2011). Some scholars argue that without central organization, movements cannot be effective (Gladwell,

2010) and although the Arab Spring revolts seemed to lack central leadership, they were successful because of the sheer volume of people who had access to information and because those people saw their friends engaging and believed that, collectively, they could make a difference. Not only was there indigenous organizational strength with strong communication networks in place, there was also a sense of efficacy and solidarity that developed as a result of wide social media networks in which "discontented Egyptians [and others] could voice their frustrations, share relevant expertise, spread hopes, and overcome the fear that comes with living under the oppressive regime" (Zhuo, Wellman, and Yu, 2011, p. 8). Moreover, using social media networks showed activists that their "friendship ties with someone…already in the movement" made it easier for them to join the cause (Hafez and Wiktorowicz, 2011).

Theories of Risk- Cultural Theory, Amplification, Contagion, Ripple Effect

The Cultural Theory (CT) of risk-taking behavior posits that people are part of cultural and contextual groups that differ in their values and social organization and that people act within their individual and group contexts (Douglas, 2010). Douglas (2010) situates the individual and the group within a grid/group model that demonstrates the amount of control people accept as individuals and the degree to which their lives are "controlled by the group they live in" (Douglas, 2010, p. 3). The advantage of Douglas' grid/group typology is that it explains "how people perceive and act upon the world around them" (Oltedal, S., Moen, B-E., Klempe, H., and Rundmo, T., 2004, p. 5).

Members of Douglas' *egalitarian* group emphasize cooperation and equality (Zinn and Taylor-Gooby, 2006; Douglas, 2010) and have a "strong sense of solidarity" (Zinn and Taylor-Goodby, 2006, p. 37). This typology helps frame the Arab Spring revolts because the evolutionary nature of the respective country protests is consistent with Douglas' *egalitarian*

type. Without central leadership and a hierarchy imposing rules, people may have been more willing to take risks (Wildavsky and Dake, 1990).

Social amplification is the notion that the messenger matters and message recipients give credence to messages from people whom they deem laudable. "A factual statement repeated several times, especially if by different sources, tends to elicit greater belief in the accuracy of the information" (Kasperson *et al.,* 1988, p. 180). Incoming messages are filtered and processed by recipients within their contextual frameworks as well as through their interactions with others. In response to information they receive, message recipients react or behave in a way that is consistent with their interpretations of the original message (Kasperson *et al.,* 1988). Importantly, when people filter information they process only a small percentage of that information, attaching their own values. To validate their interpretations, information recipients turn to their social groups. In the case of the Arab Spring protests, message amplification provided "a meaning for the receiver only within a sociocultural context" (Kasperson *et al.,* 1988, p. 180). Social contagion theory of risk follows amplification theory in that people within social networks are unintentionally influenced by others within the same networks because the attitudes and or values of those within their networks are contagious (Scherer and Cho, 2003).

The ripple effect in communication theory refers to "secondary [and] third-order impacts" (Kasperson *et al.,* 1988, p. 182) from information. Ripples are quick to spread outward in social media contexts because the networks are huge. Tweeting a message may reach hundreds to thousands of people almost instantly. As those people receive information and send it out to their networks, thousands become tens or even hundreds of thousands of people within hours so information has an impact that ripples far beyond its original destination.

Social media, social movement and risk theories help to explain behavior during the Arab Spring crises from a sociological perspective. The social and political contexts that unified people (through social media networks or otherwise) created a culture of social justice that encouraged people to take risks. Amplification of the social justice metaphor was contagious and rippled across communities and borders.

Research Questions and Hypotheses

1) Did the use of social media lead individuals living in Arab Spring countries to participate in the protests that occurred? *Hypothesis:* Social media use led people to participate in protests in their countries.

2) Does the use of social media lead people to take risks they would not take otherwise? *Hypothesis:* The use of social media does lead people to take risks, which they would not take otherwise.

Methodology

The purpose of this study was to explore how people living in Arab countries during the Arab Spring revolts perceived risk as they used social media to engage with others and participate in contentious activities. To examine this relationship, participants provided written feedback about the sorts of risks they took and how they used social media to participate in protest activities. This qualitative study "provide[s] depth and individual meaning to the questions of interest" (Fink, 2003-1, p. 68) and explores the idea that individuals take risks they might not otherwise take as a result of social media use. The study used a cross-sectional design (Fink, 2003-6) to elicit textual data and demographic information and to "provide a portrait of a group during one time period" (p. 53). A cross-sectional design was necessary due to geographic and technology constraints. The remainder of this section will provide a description of the study

sample, the research design and its administration, data analysis, and some of the limitations of this sort of design.

Sample and Sampling Techniques

Participants were alumnae of the Middle East Partnership Initiative (MEPI) coordinated and funded by the U.S. Department of State. The program, started by former President George W. Bush in 2002 (Snider and Faris, 2012), targets student leaders, ages 20-24, from MENA countries who have never traveled or studied abroad in the past and who are enrolled in a university at home. They come to the U.S. for five to six weeks to learn leadership skills, the democratic process and the elements of a civil society (http://mepi.state.gov/opportunities/mepi-exchange-programs/student-leaders.html). Montana State University (MSU) is one of six universities across the U.S. to sponsor MEPI students which they have done since 2004. While in the U.S., students learn conflict resolution and leadership skills and strategies for effective cross-cultural communication (Schmidt, 2013).

Participants for this study were selected using non-probability sampling methods, specifically convenience and snowball sampling (Fink, 2003-7). Questionnaires were sent to people whom the author knew through their participation in the MEPI program and collaboration during youth development events that took place in the U.S. in 2010 and 2011. The initial, convenience sample included approximately 75 individuals, from Palestine, Syria, Egypt, Gaza, Palestine, Iraq, Libya, Saudi Arabia, Lebanon, Jordan, Algeria, Bahrain, Yemen, Oman, Kuwait and Tunisia (Schmidt, 2013), who were graduates from the MSU MEPI program. MEPIs were asked to distribute the questionnaire to others to increase the response rate. Snowball sampling "is used when a population listing is unavailable and cannot be compiled" (Fink, 2003-7, p. 18)

which was the case with the MEPI graduates who had moved back to their home countries when this study took place.

Research Design

Prior to data collection, a literature review was conducted to determine the current, relevant issues and interpretations related to social media use, social movements, and risk-taking. Research questions were developed from the literature and the researcher's interest in the topic as the Arab Spring revolutions unfolded. The MSU MEPI coordinator was asked if the researcher could contact MEPI graduates and interview them and was told that contact information could not be shared, but that she would contact them on behalf of the researcher. MEPIs were contacted via email asking interested individuals to contact the researcher.

Questionnaire Design

In addition to the type and scope of social media use, the respondent's perception of the risk he/she had taken during the Arab Spring revolutions, and the relationship between social media use and risk, it was necessary to know respondents' demographics since country-of-origin varies as does the historical and political context of each country. The author felt it was important to know respondents' age, sex, employment and marital status as well as whether they had children as there is some evidence to support the idea that those who are single and without children may be more apt to take risks (Hvistendahl, 2011). The open-ended questions provided participants the opportunity to respond in their own words, allowed "for unanticipated answers and let respondents describe the world as they [saw] it…" (Fink, 2003-1, p. 17). The questions were written in English and although the respondents were mostly fluent English speakers, none of them speaks English as a first language. While most respondents seemed to understand the

questions, as evidenced by their written responses, there could have been some language nuances that made the questions unclear.

Data Collection

This exploratory study had a single research phase consisting of sending MEPI graduates an electronic questionnaire via email in April of 2012. Respondents were given three weeks to complete the questionnaire and told that their participation was voluntary. Initially, the author hoped to conduct in-depth interviews using Skype. However, potential respondents indicated that completing something in writing would be more convenient because power outages were common so access to email and other forms of electronic communication was difficult. After repeated attempts to make contact via Skype, the author chose, instead, to create an electronic questionnaire.

Respondents were asked to respond to the questionnaire by accessing a SurveyMonkey link. Respondents were told that their responses would be kept confidential, and other than, country-of-origin, there is no information that would immediately identify them. They were told to contact the author with questions, comments or to request results.

Data Analysis

The data were analyzed using a general inductive approach that "allow(s) research findings to emerge from the frequent, dominant, or significant themes inherent in raw data…" (Thomas, 2006, p. 238). Using this method, dominant themes are identified through thorough analysis of the raw, textual data. The researcher identifies patterns from the responses that "arise directly from the analysis of the raw data, not from a priori expectations or models" (Thomas, 2006, p. 239). In reviewing and categorizing the data, researchers are looking for patterns, relationships or "collective threads" (Bloomberg and Volpe, 2012, p. 124). Importantly, the

researcher's interpretation of the data influences the categories or themes that are developed and presented.

Sampling Limitations

This study has some limitations related to sampling and its reliance on a cross-sectional design. Follow-up interviews with respondents likely would provide more in-depth information about the use of social media as it relates to risk-taking in the countries in which the respondents resided; thus, this research should be considered preliminary and exploratory.

Another limitation is that using a convenience sampling method may bias the results as "there is a risk of gathering poor quality data" (Oppong, 2013, p. 203); however, Mays and Pope (1995) argue that "the purpose [of non-probabilistic sampling] is not to establish a random or representative sample drawn from a population but rather to identify specific groups of people who either possess characteristics or live in circumstances relevant to the social phenomenon being studied" (p. 110). This study relies on non-probabilistic sampling methods because it was important to gather data from people living in a cross-section of Arab Spring countries.

Findings

The purpose of this exploratory study was to determine if people living in Arab Spring countries believed there to be an association between their use of social media during Arab Spring protests and the risks they were willing to take as a result of that use. Of the 75 people who were originally contacted, 12 responded. Following an inductive approach to data analysis (Thomas, 2006), categories were developed from the raw data. The participant questionnaire was based on the original research questions and developed to determine if the use of social media lead individuals living in Arab Spring countries to participate in the protests that occurred and if social media use lead people to take risks they would not take otherwise. To the first question,

results demonstrate there were four ways people used social media prior to and during protest activities: 1) to organize protest activities; 2) to document what was happening; 3) to find and access information; and 4) to take action. To the second question, results indicate that respondents were motivated by social media's call for action to take personal and social risks by participating in protests. However, the data also indicate that participants may have taken these risks without social media as a motivator; in other words, social media was useful in spreading information quickly and it was easy for people to see what was happening around them, but if the call to action had come from traditional media sources or other communication networks, people may have taken similar risks.

Country context

Those who responded to the questionnaire lived in Algeria, Bahrain, Egypt, Kuwait, Tunisia, and Yemen at the time they responded as well as during protests that occurred during the Arab Spring. Bouazizi's self-immolation in Tunisia in December 2010 marked the start of what came to be known as the Arab Spring and copycat attempts occurred thereafter in Algeria and Egypt in early January 2011 (Black, 2011). Of the five countries from which respondents came, all of them except Bahrain and Kuwait were plagued with high unemployment rates, high food prices, and low wages, and in the case of Yemen, a weak civil society (Finn, 2011). On the other hand, the monarchies of Bahrain and Kuwait, "unlike the North African republics…succeeded in evading the flurry of outraged demonstrations characteristic of the Arab Spring. The distribution of rentbased petroleum wealth and the promise of reform, however limited…secured the acquiescence of its citizens" (Ocampo, 2014). Arguably, the demonstrations in Bahrain had much to do with sectarianism – a Sunni majority and Shi'a minority – as well as strategic interests from the international community - Iran, Saudi Arabia,

the U.S. (Ocampo, 2014) – while the "ferment in Kuwait [wasn't] about poverty or sectarianism – but democracy" (Hearst, 2012).

In addition to the sorts of complaints people had against their governments, the varied responses to the protests helped to fuel or mitigate continued conflict. For example, Tunisian President, Zine el-Abidine Ben Ali fled the country early (after several weeks of protest), followed by Egyptian President Hosni Mubarak. In Egypt's case, Mubarak's downfall was aided by the powerful Egyptian military whose members refused to use force against protestors, undermining Mubarak's authority. In Algeria and Yemen, governments responded to protests with force. Although Yemen's President Ali Abdullah Saleh promised not to run for re-election, protestors, fed up with corruption and lacking trust in his pledge, called for his immediate resignation (Black, 2011). Eventually, Saleh stepped down with help of a transition plan crafted by the Gulf States (Conrad, 2013). And, Algerian President, Abdelaziz Bouteflika, continues in power (European Forum for Democracy and Solidarity, 2014).

Demographics

The average age of respondents was 26 years; however, there were responses from someone as young as 19 and as old as 35. More than half of the respondents were female and at the time of the questionnaire, none of them was married or had children. All of them had attended university and more than half had graduated. Two thirds of the respondents were employed at the time the questionnaire was sent out. Study participants used email, blogs, Google Plus, Instagram, Twitter and Facebook to communicate with each other and to transfer and receive information related to the Arab Spring protests. Facebook was the only social media platform that every person used. The remainder of this section will focus on the findings from the qualitative data that emerged from the responses to the open-ended questions.

Finding 1: Young, educated, unmarried, employed males and females from Arab Spring countries used social media during unrest in their respective countries to organize, document protest activity, access and communicate information about the protests, and to call others to action.

The following categories were created based on findings from the raw data: organize, document, information, and action. Category 1 (organize) is defined as communicating information about upcoming events related to protests or other anti-government activities in one's home country; for example, one person in Yemen noted that he wrote posters to let people know about future events.

Category 2 (document) is defined as witnessing activities and events and documenting them for others to see, either in one's home country or in other Arab Spring countries; for example, using "photojournalism" techniques to show what was going on at home and abroad. Social media highlighted some of the problems that were occurring in respondents' countries and informed them about the latest events in real time; for example, one could see "the reaction of [the] Tunisian street right away."

Category 3 (information) is defined as seeking and/or providing information related to events and activities in the Arab region; for example, "catching up with the news," "searching for news" and "following tweets." Social media was used to communicate information to others as well as to access up-to-date, live information about the protest activities. For example, it was used to "get information that might be new or secret [that] I do not know."

Category 4 (action) is defined as acting in some way in support of protests or other anti-government activity. Action was either in the form of actual protest on the streets, especially in Egypt and Bahrain or by writing letters or blog posts with opinions about the political situations

in their home countries. One Bahraini noted that "we all went out claiming our rights and reforms against corruption that has drawn the country apart."

Categories 1 (organize) and 4 (action) are related in that those who provided information about upcoming protests and other events also participated in the protests, wrote opinions and posted comments on social media. As one respondent noted "before starting the manifestation, protestors usually make a page in Facebook to gather people in which they explain the reasons of protesting and when and where the event will take place." Categories 2 (document) and 3 (information) are related to the degree that those who documented events by taking photographs or videos and posting them on social media sites also intended their work to be informative and relevant. One respondent noted that he used social media to document activities "because it is the way of change, media is the real weapon."

Finding 2: Young, educated, unmarried, employed males and females from Arab Spring countries were motivated by social media to take personal and social risks by participating in protests. However, the data also indicate that participants may have taken these risks even without social media as a motivator.

Respondents took personal and social risks when they participated in protest activities, either by posting opinions on social media networks or participating in street demonstrations. In particular, several respondents noted that they took personal risks related to their families finding out about their involvement. One woman stated that she risked "get[ting] arrested , injury and simply that my family knows." Another woman was expelled from her university as a result of her involvement (a picture of her protesting was found). Furthermore, respondents indicated that they took risks such as working and living in conflict areas and trying to document events as they occurred in these places.

While most respondents were clear that social media motivated them to take action related to the protests in their countries, most did not necessarily see those actions as risky, at least not in advance of their participation. They were motivated to fight for freedom, change, reforms, their rights, and against corruption. As one respondent noted, we are "claiming for our rights and reforms against corruption that has drawn the country [apart]" and another "social media did highlight some of the problem and motivated us to take an action about it." Social media use was instrumental in providing information about the protests and thus motivating participants to take risks; however, the data does not suggest that participants took those risks solely as a result of their social media use and some of them may have taken those risks regardless of social media's role.

The primary finding of this exploratory study is that social media was used during Arab Spring protest movements in ways that are consistent with other research, that is, to document and communicate information about real time protest activities that would motivate others to take action. The secondary finding, related to the first, was that social media motivated people to take risks by providing information they could use to organize protests and participate in them. These findings emerged from the raw data which the author analyzed using an inductive approach. This approach was used to discover "the core meanings evident in the text, relevant to [the original] research objectives" (Thomas, 2006, p. 241).

Analysis

Social media was used during Arab Spring protests in the same way it is used now, that is to disseminate information, provide evidence of the truth of events, to organize people, and to call for action. The use of social media during the Arab Spring revolts was significant to the movements, not only because it was the main form of communication, but also because without

its use, the breadth of the movements would have been limited and, perhaps, unsuccessful.

Anderson (2011) argues that the events of the Arab Spring were "not a result of the Internet and social media" but of poor economic and social conditions. While poor social, political and economic conditions in Arab Spring countries may have led to dissent, without social media to disseminate information quickly to many thousands of people across the Arab world, the outcomes may have been limited and similar to the failed results of some earlier movements in Egypt such as Kefaya and the April 6th Youth Movement.

Gladwell (2010) contends that social media is not sufficient to motivate people to participate in on-the-ground, high-risk activities like sit-ins or demonstrations. He asserts that successful movements need a high level of organization from a centralized leadership. While good organization and solid leadership may be needed for movements to be sustained over the long term, social media networks were useful in the short term during the Arab Spring revolts as evidenced by the number of people who took to the streets. Social media networks were particularly useful for bypassing traditional media sources that were constrained by repressive governments (Khamis, 2011); for example, as one study respondent noted social media "acknowledges me the real reasons of [the] cause or event" and "[I used] Twitter to know more, specially in black out of national media."

From a social movement perspective, movement entrepreneurs were able to frame events in ways that called attention to the injustices that were occurring. Part of the framing process was to take photographs and videos and to post them so that they appeared on Facebook feeds. These images documented the reality of events on the ground and fueled the sense of injustice that many people were feeling, providing motivation for action. And, as Benford and Snow (2000) note, motivation is one of the core framing tasks.

When analyzing the findings in light of risk theories, it is evident that respondents took risks, although perhaps not solely as a result of social media use. The CT theory of risk posits that people's behavior is contextual from an individual and a group perspective. People take risks based on their cultural frameworks. Young, educated former and present students were part of an activist culture when the Arab Spring revolts began. As one student notes "the Student Union made some manifestations before and during the revolution and I supported them." Furthermore, the *egalitarian* type that emerges from Douglas' (2010) grid/group model provides a framework for the protests as demonstrations developed and evolved from non-hierarchical social media networks that, nevertheless, were effective in organizing and mobilizing masses of people.

Amplification theory of risk holds that messages are interpreted and amplified or attenuated based on a number of factors including the origin of the message or its messenger as well as the context in which the message is sent (Kasperson *et al.,* 1989). During the Arab Spring revolts, the messengers were people supplying UGC such as videos and photos that "show[ed] the reality" of what was happening on the streets; these messages were amplified across broad social networks. Secondary and third-order impacts (Kasperson *et al.,* 1989) result from people's responses to the initial information they receive. Mohamed Bouazizi's self-immolation, a culminating event for Tunisian citizens, resulted in widespread anti-government protests. As this information was spread and amplified across social media networks, secondary impacts were evident; for example, one of the respondents noted, "Bahrain is among the Arab Spring countries and for that we all went out claiming our rights and reforms against corruption that has drawn the country apart." Young and educated citizens across the Arab world participated in protests against their respective governments as a result of ripple effects (Kasperson *et al.,* 1989) from social media networks.

The contagion theory of risk perception (Scherer and Cho, 2003) speculates that "individuals adopt the attitudes or behaviors of others in the social network with whom they communicate. The theory does not require that there is intent to influence, or even an awareness of influence, only that communication takes place" (p. 262). Communication itself is the only element necessary for others within a social network to react. In other words, a Facebook "friend" does not have to ask for compliance or engagement with an issue, they simply need to communicate their thoughts/feelings. According to contagion theory, this sort of communication leads "friends" and friends of friends to think and behave similarly. Importantly, the closer the tie between two people, the more likely they will influence each other's thinking and/or behavior (Scherer and Cho, 2003). While it is difficult to gauge the strength of a tie that someone has to a Facebook "friend," the implication is that Facebook and other social media sites are contagious and the information that was shared during the Arab Spring revolts was contagious.

Mohammad Bouazizi's death in Tunisia and Kahled Said's brutal murder in Egypt were amplified through social media, rippling across vast networks (Dahab 2012) so that when Wael Ghonim called for a mass gathering in Tahrir Square in Egypt on January 25, 2011, people wanted to protest against the injustices, seeing themselves in the young men who had died. As Dahab (2012) argues "Khaled Said was anyone's son and was everyone's nightmare. At any time, any Egyptian could become Khaled Said. This was not about economics or mobilization or cultural distinction, it was about living in perpetual danger" (p. 72). Amplification of messages across social media networks that "show the reality…about what is happening" helped to galvanize the Arab Spring movements. Dahab (2012) notes that without inspiration and passion, movement actors may not coalesce. Social media was the galvanizing force that led people to take risks when they did. In spite of the risks inherent in public protest, especially in Egypt,

where the police were known for their brutality (Dahab 2012), people were inspired to engage. The nature of social media's "cyber-activism [is that it] operates organically and without any formal structures" (Dahab, 2012, p. 71); activism evolves as information is shared and people respond in the context of what they know, see or experience (Douglas, 2010). As the person who could see "the reaction of Tunisian street right away" noted, she decided to take a risk because the visual truth inspired her to action. While recruitment to action through social media networks existed prior to the Arab Spring revolts, amplification and ripple effects did not occur because there was a lack of passion for the cause and the context within which the information was disseminated was less volatile, more oppressive, and did not spread as instantly as during the Arab Spring protests (Dahab, 2012). Being able to see exactly what was going on in the streets at any given moment led people to take risks they would not otherwise have taken.

Conclusions

The sample size for this study was small and the countries in which people resided differed socially and politically. However, the findings indicate a relationship between social media use, protest and risk. People living in Arab Spring countries used social media to participate in the social movements in their countries and to decide whether to participate in protests that occurred. However, while the people in this study certainly took risks, it is not clear that the risks they took were due solely to social media's potential for anonymity; similar risks may have been taken in response to traditional media. Aday *et al*. (2010) ask if "new media will change perceptions about the real distribution of opinion within a society, so that others feel safer coming forward in support of a previously taboo position once they see how many online peers share their views." Further research is needed to answer this question and to get a better, broader understanding of how social media and risk interact among different populations.

Social media can help people organize around a cause and provides the space for people to document their surroundings and to convey information. Moreover, social media can motivate people to take action. As issues are framed and messages of injustice are amplified through social media networks, they become contagious, leading to action (the 2014 Ferguson, Missouri riots in the U.S. are a recent example). Hearing the voices of those who were actively engaged in the Arab Spring revolts is heartening, frightening, and necessary for a better understanding of the ways in which social media is used to influence change.

Considerations for Future Study

Several of the demographic factors are interesting to note and warrant more study. The fact that none of the respondents is married or has children may have affected their willingness to take risks (unmarried men tend to be more "volatile" than married men – Hvistendahl, 2011). As well, their young ages, and for some, lack of employment, might be cause for risk-taking behavior that leads to conflict (Hvistendahl, 2011). Other questions for future study include: Since the collective energy around the Arab Spring revolts has dissipated, are people less likely to participate in future protests? Have the resultant political and social changes (or lack thereof) jaded those who were previously hopeful for change? How does country-of-origin affect one's willingness to take a risk or to participate in a cause or event during civil unrest? In addition to these questions, Garrett (2006) poses several questions about the role of information and communication technologies (ICT) as catalysts for collective action; for example, how and when do ICTs "promote more rapid and intense mobilization efforts and enable more sustained activity?" (p. 217). As Arab Spring countries continue to transition, these questions are worth exploring.

Appendix

List of Questions

1) What is your age?
2) What is your level of education?
3) Are you employed?
4) Are you male or female?
5) What is your marital status?
6) Do you have children?
7) Have you participated in any protests in your country? Please explain.
8) Is civil unrest an issue in your country today? Please describe.
9) Did you take risks during protests that took place in your country? What were the risks?
10) Do you use social media? Which form(s)?
11) Did you use social media (in any form) during protests that took place in your country? Please describe.
12) Do you think your use of social media compelled you to take risks during protests in your country?
13) Did you learn about protests in your country from the use of social media?
14) Do you think your use of social media lead you to join protests that occurred in your country? Please explain.
15) Do you currently use social media to organize or protest?
16) Does the use of social media help you decide whether to participate in an event or cause? Please explain.
17) Would you participate in an event or cause if social media did not promote it? Please explain.
18) Does the use of social media help you decide whether or not to take a risk during civil unrest in your country? Please explain.
19) In which country do you live?

References

Aday, S., Farrell, H., Lynch, M., Sides, J., Kelly, J. Zuckerman, E. (2010). "Blogs and Bullets: new media in contentious politics." *Berkman Center for Internet and Society Peaceworks*, 65. United States Institute of Peace.

Anderson, L. (2011). Demystifying the Arab Spring: Parsing the differences between Tunisia, Egypt and Libya. *Foreign Affairs*, 90, 2-7.

Benford, R. and Snow, D. (2000). "Framing Processes and Social Movements: An Overview and Assessment." *Annual Review of Sociology*, 26: 611–39.

Black, I. (2011). "Tunisia's protests spark suicide in Algeria and fears through Arab world." Jan. 16, 2011. Retrieved from: http://www.theguardian.com/world/2011/jan/16/tunisia-protests-suicide-algeria-arab.

Black, I. (2011). "Arrests and deaths as Egypt protest spreads across Middle East." Feb. 14, 2011. Retrieved from http://www.theguardian.com/world/2011/feb/14/middle-east-iran-bahrain-yemen.

Bloomberg, L. and Volpe, M. (2012). *Completing Your Qualitative Dissertation: A Road Map from Beginning to End*" (2nd ed.). California: Sage.

Bourque, L., and Fielder, E. (2003). "How to Conduct Self-Administered and Mail Surveys, 3." In *The Survey Kit* (2nd ed.). New York: Sage.

Buechler, S. (2011). "Understanding Social Movements: Theories from the Classical Era to Present." Boulder: Paradigm Publishers.

Castells, M. (1996). *The Rise of the Network Society: The Information Age: Economy, Society, and Culture*, 1. Oxford: Blackwell.

Comninos, A. (2011). Twitter revolutions and cyber crackdowns: User-generated content and social networking in the Arab spring and beyond. *Association for Progressive Communications*, 1-18.

Conrad, N. (2013). "Yemen's political transition reaches tipping point." Deutsche Welle (Jan. 21, 2013). Retrieved from: http://www.dw.de/yemens-political-transition-reaches-tipping-point/a-16523986.

Dahab, R. (2012). "Egyptian Activism in the Modern Era and the Role of Information and Communication Technologies." *FIU Electronic Theses and Dissertations*. Paper 726.

Della Porta, Donatella and Mario Diani. Social Movements: An Introduction, 2nd ed. Massachusetts: Blackwell Publishing (2006).

Douglas, M. (2010). "A history of grid and group cultural theory." *Semiotics Institute Online*, A *Course on Cultural Theory: The Grid/Group Model*, Lecture 1. Retrieved from: http://semioticon.com/sio/courses/the-group-grid-model/.

European Forum for Democracy and Solidarity (2014). "Algeria County Update" (Aug. 25, 2014). Retrieved from: http://www.europeanforum.net/country/algeria.

Fink (2003). The Survey Handbook, 1. In *The Survey Kit* (2nd ed.). New York: Sage.

Fink, A. (2003). How to Ask Survey Questions, 2. In *The Survey Kit* (2nd ed.). New York: Sage.

Fink, A. (2003). How to Design Survey Studies, 6. In *The Survey Kit* (2nd ed.). New York: Sage.

Fink, A. (2003). How to Sample in Surveys, 7. In *The Survey Kit* (2nd ed.). New York: Sage.

Finn, T. (2011). "Yemen arrests anti-government activist." Jan. 23, 2011. Retrieved from: http://www.theguardian.com/world/2011/jan/23/yemen-arrests-protest-leader.

Garrett, R. (2006) "Protest in an Information Society: a review of literature on social movements and new ICTs." *Information, Communication & Society*, 9, No. 2: 202-224. DOI: 10.1080/13691180600630773.

Gladwell, M. (2010). Small change: Why the revolution will not be tweeted. *The New Yorker* (October 4, 2010): 42-49.

Hafez, M. and Wiktorowicz, Q. (2004). "Violence as Contention in the Egyptian Islamic Movement." In *Islamic Activism: A Social Movement Theory Approach*, Q. Wiktorowicsz, (Ed.). Indiana: Indiana University Press: 61-88.

Harb, Z. (2011). "Arab revolutions and the social media effect." *Media/Culture Journal*, 14. Retrieved from http://journal.media-culture.org.au/index.php/mcjournal/article/viewArticle/364.

Hearst, D. (2012). "Kuwait's protests remind us of the Arab spring's true spirit." (Nov. 2, 2012). Retrieved from: http://www.theguardian.com/commentisfree/2012/nov/02/kuwait-protests-arab-spring.

Hofheinz, A. (2005). "The internet in the Arab world: Playground for political liberalization." *IPG*, 3: 78-96.

Hvistendahl, M. (2011). "Young and restless can be a volatile mix." *Science,* 333, 552-554.

Joffé, G. (2011). "The Arab Spring in North Africa: origins and prospects." *The Journal of North African Studies*, 16, No. 4: 507-532. DOI:10.1080/13629387.2011.63088.

Khondker, H. (2011). "Role of the New Media in the Arab Spring." *Globalizations,* 8, No. 5: 675-679. DOI: 10.1080/14747731.2011.621287.

Kaplan, A., & Haenlein, M. (2010). "Users of the world, unite! The challenges and opportunities of social media." *Business Horizons,* 53, 59-68.

Kasperson, R., Renn, O., Slovic, P., Brown, H., Emel, J., Goble, R., Kasperson, J. and Ratick, S. (1988). "The social amplification of risk: A conceptual framework." *Risk Analysis,* 8, 177-187.

Kavanaugh, A., Yang, S., Sheetz, S. D., Li, L. T., Fox, E. A. (2011). "Microblogging in Crisis Situations: Mass Protests in Iran, Tunisia, and Egypt. Workshop in conjunction with the ACM Conference on Human Factors in Computing Systems." May 7-12, 2011, Vancouver, Canada. Retrieved from: http://www.ctrnet.net/publications.

Khamis, S. (2011). The transformative Egyptian media landscape: Changes, challenges and comparative perspectives. *International Journal of Communication*, 5, 1159-1177.

Khamis, S., and Vaughn, K. (2011). Cyberactivism in the Egyptian revolution: How civic engagement and citizen journalism tilted the balance. *Arab Media and Society*, 14. Retrieved from: http://www.arabmediasociety.com/?article=769.

Lim, M. (2012). "Clicks, Cabs, and Coffee Houses: Social Media and Oppositional Movements in Egypt, 2004–2011." *Journal of Communication* 62: 231–248.

Lipsky, M. (1968). "Protest as a Political Resource." *The American Political Science Review*, 62, No. 4: 1144-1158.

Mays, N. and Pope, C. (1995). "Rigour and qualitative research." *BMJ*, 311: 109-112.

McAdam, D. (2013). "Cognitive Liberation." In *The Wiley-Blackwell Encyclopedia of Social and Political Movements*. D. Snow, D. Della Porta, B. Klandermas and D. McAdam, Eds.

Nigam, A. (2012). "Arab upsurge and 'viral' revolutions." *Interface*, 4, No. 1: 165-177.

Norris, P. (2001). *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*. Cambridge University Press.

Ocampo, O. (2014). "Regime (Not) Changed: Bahrain, the Arab Spring and Energy Security." May 28, 2014. Retrieved from: http://www.aucegypt.edu/huss/pols/Khamasin/pages/article.aspx?eid=7.

Oltedal, S., Moen, B-E., Klempe, H., and Rundmo, T. (2004). "Explaining risk perception. An evaluation of cultural theory." Norwegian University of Science and Technology, Department of Psychology, Rotunde no. 85. Retrieved from: http://www.svt.ntnu.no/psy/Torbjorn.Rundmo/Cultural_theory.pdf.

Oppong, S. (2013). "The problem of sampling in qualitative research." *Asian Journal of Management Sciences and Education*, 2, No. 2: 202-210.

Quan-Haase, A., Wellman, B., Witte, J., and Hampton, K. (2002). "Capitalizing on the net: Social contact, civic engagement, and sense of community." In *The Internet in Everyday Life*, Barry Wellman and Caroline Haythornthwaite (Eds.). The Oxford, UK: Blackwell.

Reese, Aaron (2009). "Framing April 6: Discursive dominance in the Egyptian print media." *Arab Media & Society*, Spring.

Saddy, R. (2011). "Social media revolutions." *Journal of Professional Communication,* 1, 31-33.

Scherer, C. and Cho, H. (2003). "A Social Network Contagion Theory of Risk Perception." *Risk Analysis*, 23, No. 2: 261-267.

Schmidt, C. (2013). Retrieved from: http://www.montana.edu/news/12057/international-students-visiting-msu-gain-new-perspective-on-conflict-and-leadership.

Snider, E., and Faris, D. (2012). The Arab Spring: U.S. democracy promotion in Egypt. *Middle East Policy*, 18, 49-62.

Taylor, D. (2000). "The Rise of the Environmental Justice Paradigm: Injustice Framing and the Social Construction of Environmental Discourses." *American Behavioral Scientist* 43, No. 4: 508-580.

Thomas, D. (2006). "A General Inductive Approach for Analyzing Qualitative Evaluation Data." *American Journal of Evaluation*, 27, No. 2: 237-246. DOI: 10.1177/1098214005283748.

Trimpop, R. (1994). *The Psychology of Risk Taking Behavior*. Netherlands: Elsevier Science B.V.

Wildavsky, A. and Dake, K. (1990). "Theories of Risk Perception: Who Fears What and Why?" *Daedalus*, 119, No. 4: 41-60. Retrieved from: http://www.jstor.org/stable/200025337.

Zinn, J., and Taylor-Gooby, P. (2006). Risk as an Interdisciplinary Research Area. In *Risk in Social Sciences*, P. Taylor-Goodby and J. Zinn (Eds.), (1-18). New York: Oxford University Press.

Zhuo, X., Wellman, B. and Yu, J. (2011). "Egypt: The First Internet Revolt? The Egyptian Revolution was both the old story and a new story." *Peace Magazine* Jul/Sep: 6-10.