

I. Introduction/Literature Review

In today's turbulent political environment, one need only turn on a television or pick up a newspaper to learn of the most recent uprising, protest, or social movement taking place somewhere around the world. Though social movements, or "groups of people with a common ideology who try together to achieve certain general goals" (WordNet, 2003) have likely been occurring, at least to some extent, since the advent of organized human society, modern times have added an element to the resources of revolution (Note: The term "revolution" will be used throughout this paper in a colloquial sense, utilizing the common vocabulary employed by both the media and average citizens who discuss these events), the media. In particular, social media outlets such as Facebook, Twitter, YouTube, various blogging sites, and even SMS messaging (texting) have enabled previously disconnected masses of people, who before had no practical way of quickly communicating their perceptions and ideas across significant distances, to instantly share these thoughts. And due to this new technology, among other things, people now have an increased ability to obtain information from the unique perspectives of fellow citizens rather than relying solely on the existing media establishment (Selvik & Stenslie, 2011).

While the global trend suggests an overall increase in the usage of Web 2.0 technology, the Arab region in particular has experienced a recent surge in the use of social media. For example, Arab states, plus Iran, outpaced many of the Top 20 nations (USA, Australia, etc.) in the increase of Facebook penetration (the number of citizens who own a Facebook account) for 2010 (Arab Social Media Report [ASMR], 2011). In addition, as noted by O'Reilly and Milstein, the use of Twitter in these countries has recently increased dramatically, expanding by roughly 1382% in Iran alone between February 2008 and February 2009 (Burns & Eltham, 2009). While the primary idea behind websites such as Facebook and Twitter is for users to expand,

strengthen, and interact with social circles, this process also allows for the accessing of instantly updated communications for events and situations which could take traditional forms of media much longer to thoroughly cover, thereby leading to a heavier reliance on amateur reporting conducted by the average internet user (McCarthy, 2009).

Governments and the private sector have varying degrees of control over the type of information presented by traditional media sources, and therefore hold a relatively significant command over the perceptions maintained by citizens. However, these same bodies are in danger of no longer maintaining the equivalent level of influence over the communication, thoughts, and opinions of their followers. And when the conditions within a state are domineering and free-speech-prohibitive, the ability to access a network containing real-time communication expressed by fellow citizens amplifies the effect of social media possibly creating conditions ripe for the spread of revolutionary ideas (Peterson, 2010).

One of the instances in which social media certainly played a role in a social movement is the aftermath of the 2009 Iranian Presidential election and the subsequent creation and mobilization of the opposition Green Movement. Sometimes referred to as the “Twitter Revolution,” significant evidence exists of social media being widely used during this time as a form of communication and information-gathering, although several sources argue the inefficacy of the use of Twitter and Facebook in the organization and implementation of this short-lived revolution (Cross, 2010) (Morozov, 2009). Though the use of social media in this specific instance almost certainly did not make or break the success of the movement, the technology likely impacted the course of events in one way or another. If nothing else, social media contributed to the worldwide awareness of the events in Iran as activists sought to spread the word outside of the country's borders by posting a large portion of the social media notifications

A report published in May 2011 entitled *The Arab Social Media Report* was the second such document in a planned series by the Dubai School of Government aimed at examining the increasing use of social media throughout Arab states, plus Iran (ASMR, 2011). This report uses a variety of sources to facilitate the creation of its numerous graphs and data sets, including the use of a tool called Google Transparency which allows users to create and view customized graphs pertaining to certain types of internet usage in specific regions around the world over a set period of time. While Google Transparency primarily provides data for Google products (Blogger, Youtube, etc.) it is still very interesting to see how certain segments of the internet are and were being used at particular points in time (Google Transparency Report).

Unfortunately, producing the same amount and type of data on social media usage in Iran is a more difficult task than finding the equivalent information for Egypt. For example, it is noted in the Arab Social Media Report that American technology export laws prevent Facebook from reporting the same type of data about Iranian users as it does about users in many other countries (ASMR, 2011). This is corroborated by the complete lack of Facebook penetration data for Iran on other internet statistic sites (Internet usage in the Middle East, 2011), and means that most data regarding social media usage in Iran should be taken with a grain of salt.

As of December 2010, Iranian Facebook penetration was estimated at 0.17 percent, second only to Somalia in the lowest-ranking countries studied in the first edition of the Arab Social Media Report. However, the Digital Access Index (a measurement of the average citizen's ability to access the internet) of Iran was estimated at 44% during the same time period, compared to Egypt's 40%, signifying that relatively few Iranians within the much larger online community were visiting Facebook (the number of Facebook users as a percentage of overall internet users was thought to be around 1.51% for Iran, compared to 22.61% in Egypt).

government of Iran, which even began producing its own internet filtering capabilities in order to reduce reliance on foreign technology (ONI Iran, 2009).

One of the key components of internet control in Iran is the severe limitations placed on bandwidth availabilities in households. In October 2006, Iran's Ministry of Communications and Information Technology forbade internet service providers from making available any speed above 128 kilobits per second (kbps) for household use. This seems counter-intuitive to the direction the infrastructure was progressing in Iran, which had a rapidly expanding fiber-optic network between 2005 and 2007 that would have been capable of supporting internet speeds much greater than 128 kbps. Regarding this regulation, Iran's Minister of Information and Communications, Mohammad Soleimani, stated that the lack of demand for faster connection speeds led to the bandwidth cap. Furthermore, internet service providers who marketed to the public were required to route their services through the state-controlled Telecommunication Company of Iran (TCI), providing an additional level of state monitoring over household internet access (ONI Iran, 2009).

B2. Egypt

Accurate data on exactly how many Egyptians use the internet is difficult to acquire. A report citing statistics from the UN Agency for Information and Communication Technologies puts the most recent estimate for Egyptian internet users at approximately 20 million (about 25% of the population), which is a dramatic increase from the 450,000 users as of December 2000 (Internet usage statistics for Africa, 2011). While many of these users access the internet at home, it has been noted that a large number of the Egyptian internet-using population utilizes internet cafes to go online rather than household connections (ONI Egypt, 2009). It is also

filmed on a cell phone. This event caused a strong reaction among Iranian citizens who had yet another tangible example of the lack of personal security in their country (Buxton, 2009). The Iranian government responded to the obvious public outrage at this video by claiming that Soltan's death had been an attempt at propaganda and staged by foreign agencies (Burns et al, 2009), which was probably not a surprising response, as the Iranian Revolutionary Guard in particular was considered by many to be a “propaganda machine” (Alfoneh, 2009). Another such video, entitled “Deadly Iran Protest on Camera,” also gained a significant amount of attention as it depicted large crowds of protestors and a clash between citizens and authorities which resulted in up to seven deaths. This idea for using social media to capture and document events in a country with increasingly strict censorship and a lack of non-state-sponsored journalists was taken up and spread by those who used the technology, with many online posts recommending that others begin to use their mobile phones to point an accurate picture of what was happening in the streets. Once they hit the internet, the pictures, videos, and messages posted by these average citizens were seen within Iran and around the world, as one analyst claimed, “from Isfahan to Indianapolis” (Quirk, 2009).

In June of 2009, Scott Rubin, a spokesman for the popular video-sharing site YouTube, told BBC News that traffic to the website from Iran was down by 90%, which indicated that those within the country were denied access to the site. Rubin was also of the opinion that “The real story of this election is being told by the citizen,” and commented on YouTube’s role in circumventing Iranian content-filtering systems. The service CitizenTube was developed by YouTube to act as a resource for examining the ways in which people communicate through video. This resource enabled, probably inadvertently, many citizens at all levels of technological

after experiencing the benefits of an expanding economy; as Alexis de Tocqueville noted, “the most dangerous moment for a bad government is when it begins to reform itself” (Zakaria, 2011). It is also possible that smaller events contributed to the collective desire for change, and may have had even more of an effect by adding a human element to the situation.

By the time the revolution officially started in January, 2011, the internet had been used extensively as a medium to describe and condemn government actions such as police and security force brutality. The story of Khaled Said turned into one of the most well-known examples of the lack of security citizens had under the Mubarak regime, but there were also many other similar stories that circulated around the web. In one instance, a university student posted to his blog that he had been beaten by police after tripping on a train platform (Ghosh, 2011). Another example involves the 2007 sentencing of an Egyptian blogger to four years in prison on charges of “incitement to hatred of Islam” and insulting the President on his blog. More recently, the editor of the blog “Matabbati” was arrested and charged with “offending the state institutions, destabilizing public security, and inciting others to demonstrate and strike via the Internet” in August, 2008 (ONI Egypt, 2009).

Declared by many to be one of the most effective videos at garnering mass public support prior to the Egyptian Revolutions was a video posted by Asmaa Mahfouz on her Facebook page on January 19th, and later uploaded to YouTube (over 141,000 views as of December 2011). In the video, Mahfouz (who happens to be one of the former leaders of the April 6 Youth Movement) stated that she and others had previously wanted to protest in Tahrir Square, following the self-immolation of four Egyptians protesting the Mubarak regime, but only a few people joined her. She used the video to call out to those who were too timid to protest in the streets, using her gender to challenge men in particular to be as brave as a woman (which was a

that these new “citizen journalists” were straddling the line between political activism and journalism, and were well aware of the possibility of retribution from hostile government forces (Pintak, 2011, March 6).

The Mubarak regime had already showed its willingness and ability to disrupt social networking capabilities in May of 2008, when mobile phone providers were requested to block service to anonymous subscribers. The government claimed that its motives at the time were in the interest of public security, but actions such as the raid of a Cairo broadcasting company and subsequent confiscation of transmission equipment following the station’s broadcast of anti-government protests seemed to send a different message; this same company was eventually forced to shut down, and three other satellite channels were dropped from the Egyptian state satellite system for similar reasons (ONI Egypt, 2009). Overall, the regime seemed to struggle with the methods for limiting media access as they resorted to several distinct tactics in a “shotgun effect” of attempted censorship: Egyptian state television employees who were sympathetic to protestors were dismissed on indefinite leave; attempts at blocking sites such as Facebook and Twitter largely failed as activists were able to assist each other in spreading the idea of using proxy servers to access the internet and thereby skirt the government’s roadblocks; state television would broadcast, in turn, video of the protests followed by wide panoramas of the city which expressed a more peaceful atmosphere (Pintak, 2011, January 31); and the failure to shut off Al Jazeera’s streaming into Egypt when the company responded by using an alternate route of communication to continue broadcasting (Al Jazeera’s actions were amplified when several other satellite broadcasters replaced their own coverage with Al Jazeera’s) (Pintak, 2011, February 02). During this time of obvious government interference in the media, citizens were wondering about the results should the government be successful; a message sent from an