



Social Action in the Social Movement: Egyptian Twitter Usage during Protests

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Abstract: In recent years, social media has been increasingly used to generate and organize social movements with the hope of effecting change. While many assumptions are made about the way social media is used, few studies actually examine the way individuals use these tools. This study uses content analysis to examine the way that Twitter was used to incite, organize, and perpetuate the Egyptian election protest in January 2011. The goal of this study is to provide insight into how Twitter is used, the tonality of the tweets, and the purpose of distributed messages. To meet this goal, we coded 786 tweets during the Egypt protest for content and linguistic features. Results showed that Twitter is a tool primarily used for sharing personal experience and opinions, information about police and military activity, and logistical information to create a unified community and mobilize individuals to participate in a physical space of protest.

I. INTRODUCTION

Scholars (e.g., Tufekci & Wilson, 2012) have identified that social media can provide an important avenue of communication for political dissenters in authoritarian regimes when other means are not possible. We witnessed such an occurrence during the string of political revolutions promoting democratic ideals in the Middle East and North Africa (MENA) region in 2010 and 2011 (aka, the "Arab Spring"), predominantly through the uprisings in Tunisia and Egypt. These events provide an important area of analysis to help us understand the role of social media in political movements. While social media, specifically Twitter, played a crucial role in both uprisings (Aouragh & Alexander, 2011), the focus of this chapter is on the political revolution that occurred in Egypt, ultimately resulting in the removal of President Hosni Mubarak. Through content analysis, we examined how Twitter was used to incite, organize, and perpetuate the Egyptian election protest in January 2011. The

analysis of 786 tweets during the Egypt protest revealed that Twitter was a tool used by those involved in the protest to share personal experience and opinions, inform others about police and military activity, and communicate logistical information to create a unified community and mobilize individuals to participate in a physical space of protest.

In recent years, social media has been increasingly used to generate and organize social movements with the hope of effecting change. While many assumptions are made about the way social media is used, few studies actually examine the way individuals use these tools. This study uses content analysis to examine the way that Twitter was used to incite, organize, and discuss the Egyptian election protest in January 2011. The goal of this study is to provide insight into how Twitter is used, the tonality of the tweets, and the purpose of distributed messages. The following section will detail a brief history of the Egyptian revolt at Tahrir Square while highlighting the importance of social media during this political



movement; explain the functions of Twitter and how this medium works to distribute information during social movements, specifically the Egyptian uprising; and discuss community formation and discursive resistance in online spaces.

II. LITERATURE REVIEW

Egypt and the "Arab Spring"

While some have called the uprising that occurred in Egypt a "Facebook Revolution" and have insisted that social media was the cause of the protest, it is important to understand that the revolt that occurred at Tahrir Square in late January 2011 was a culmination of years of social and political protest (Aouragh & Alexander, 2011). Hence, the uprising was not rooted in social media, as some have contended, but in dissatisfaction with an oppressive and corrupt government, among other factors. Though social media did not cause the revolution in Egypt or in other Arab countries, it did play an important role prior to and during the event. As Lim (2012) stated, the power of the people and the power of social media in Egypt cannot be separated; social media has "been an integral part of political activism of the Egyptian for years."

Before Facebook and Twitter entered the Egyptian nation, political oppositional movements and activists used the Internet and blogs as tools for communicating about democracy, discussing grievances, and organizing protests (Khamis & Vaughn, 2011; Lim, 2012; Tufekci & Wilson, 2012). For example, the political group Kefaya, established in opposition to President Mubarak, organized street protests in 2005 and 2006 via the Internet, often through blogging (Lim, 2012). According to Lim (2012), "the emerging blogosphere created a space in which the inner circle of blogger-activists could deliberate freely

among themselves." Before the Kefaya group and their use of blogging, oppositional activist groups in Egypt (e.g., the Muslim Brotherhood, the Tomorrow parties, the Egyptian Communist Party) were often divided among political and religious ideals. However, through blogging, ideological barriers were transcended, helping bring these oppositional groups together. The Kefaya group's use of blogs and the Internet inspired many other groups, including the April 6th Youth Movement, which was the first oppositional group to incorporate the use of Facebook and Twitter, and a key acting group in the January 25th Tahrir Square protest (Lim, 2012).

While protests had occurred annually on January 25th (i.e., Egypt's National Police Day) in Egypt, participation in the 2011 protest was much larger than in previous years and maintained a different focus from previous protests: to overthrow the regime (Lim, 2012). Following the success of political revolutions in Tunisia on January 14th, Egyptians maintained hope that such a goal was possible. To help mobilize protesters, both the April 6th Youth Movement and another opposition group, the We are all Khaled Said Facebook group, used the Internet as a means to distribute information about the planned January 25th protest at Tahrir Square. They also connected with other oppositional parties, including the youth of the Muslim Brotherhood, to advertise the protest (Kirkpatrick & Sanger, 2011). The elders of the Muslim Brotherhood, however, initially made the decision to not join the protest, a decision that was reversed following the first day of protests.

These oppositional groups used social media, such as Facebook, blogs, YouTube, and Twitter, as tools to disseminate information about the January 25th protest (Lim, 2012). In addition to the use of the Internet, the groups used informal



networks as a means to spread the word through face-to-face communication and text messaging, and posted flyers about the event as well. The use of online and offline networking to mobilize protesters resulted in a crowd of 80,000 people on the first day of protest, which continually grew larger in subsequent days. Ultimately, these protests resulted in the resignation of President Mubarak in February 2011.

The Tahrir Square Revolt and Social Media

As a result of the prominent use of social media in the events leading to and during the Egyptian uprising at Tahrir Square, scholars have sought to understand how social media functioned during the movement. Lim (2012) attributed social media's importance in Egypt's uprising to expanding networks and providing a means of mobilization. Social media enabled opposition groups to connect with each other and allowed for the mass circulation of information. As Lim (2012) explained, "social media functioned to broker connections between previously disconnected groups, to spread shared grievances beyond the small community of activist leaders, and to globalize the reach and appeal of the domestic movement for democratic change." Howard et al. (2011) identified a similar conclusion about the function of social media in the Egyptian uprising, claiming that social media provided a space for political conversation, a means for people to gain social capital through networking, and a space for organizing protests and mobilizing protestors. These conclusions are also reflected by Khamis and Vaughn (2011) as well, who noted that social media provided mediums for people to engage in free speech and opportunities for networking, and supported their efforts to plan and organize protests.

Tufekci and Wilson (2012) further highlighted the importance of social media in spreading

information about the planned Egypt protest, determining that people primarily heard of plans for the Egyptian Tahrir Revolution via face to face communication or through a variety of social media channels, such as Facebook and Twitter. Several scholars (Khamis & Vaughn, 2011; Tufekci & Wilson, 2012; Wilson & Dunn, 2011) have made a distinction between the role of Facebook and Twitter in distributing information during the protest, noting that Facebook had a greater impact in spreading information for mobilization of the protest (e.g., organization and logistical information prior to the event) than Twitter. As Wilson and Dunn (2011) indicated, Facebook was important to the planning involved during the months and days prior to the protest. Twitter, on the other hand, became the main tool for spreading information as the event occurred, especially disseminating information to communities outside of Egypt, thus becoming a real-time news reporting tool (Khamis & Vaughn, 2011). Activists involved in the protest viewed Twitter as an important tool for providing information to communities outside of Egypt, which also influenced the morale of people involved in the protests as they felt "the world was watching" (Wilson & Dunn, 2011). Tufekci and Wilson (2012) also noted the importance of Twitter in connecting Egypt to the outside world, as Twitter was one of the first means through which others learned of the revolution, thus making Twitter act as a news site.

Hence, Twitter and Facebook served distinct roles in the Egyptian revolution, with Facebook predominantly serving a role during the organizing and planning prior to the protest and Twitter predominantly serving a role during the midst of the protests. This distinction in function perhaps emerges as the design of Twitter encourages the frequent distribution of short message updates. The following section explains



how Twitter functions generally and its importance for information sharing during revolutions, specifically the Egyptian Tahrir Square protests.

Twitter and Information Sharing

Twitter is an asynchronous social media site that allows users to create a profile page and then update the page with messages via the main website, mobile Internet devices, or text messages (Murthy, 2011). The message updates are automatically posted and visible on the public Twitter web page. Currently, there are more than 140 million active users who tweet 340 million tweets per day (Twitter, 2012). As Murthy (2011) noted, it is not clear how many tweets actually get read each day, but “people are sending tweets and consider it to be meaningful for them.” While tweets are limited to 140 characters, users can take advantage of other applications or websites that shorten hyperlinks, can embed photos into messages, or can link to longer posts hosted on other websites (Murthy, 2011). Furthermore, Twitter users can link messages to one another through the use of a hash sign, also called a “hashtag.” This links all messages into a searchable list, where individuals can visit the main Twitter page and search for a hashtag—like #Jan25—to find all tweets containing that tag (Murthy, 2011).

Users can create a live feed of tweets by “following” other members on Twitter. Each time that user submits a new tweet, it shows up on that users feed instantly, and can be simply read, “retweeted” (i.e. sent out to their own network of followers), or responded to in a direct tweet (i.e. still public, but targeting that user by username). This allows members to create a network of people through which they can receive information from or submit information to. The collection of tweets on a user’s profile is also

called a “microblog,” which Java, Song, Finin, and Tseng (2007) described as a blog that contains short rather than long messages. Previous studies on microblogs have shown that users feel a sense of community due to the frequent updates and virtual presence of other users (Ebner & Schiefner, 2008).

Numerous studies have documented the use of Twitter during political movements, especially as a tool for information sharing. Ems (2009) conducted a study on the use of Twitter in three protests: the June 2009 Iranian presidential election protest, the Moldova protest in April 2009, and the G-20 Summit protests in Pennsylvania in September 2009. Instead of examining the actual tweets, her study was based upon news stories published in the mass media, blogs, or other types of journals (Ems, 2009). In all three cases, Ems (2009) found that Twitter was used to “organize protests, get information to media outlets about the protests, or to avoid police in the streets during protests.” Erickson (2010) called this type of information “citizen microbroadcasting,” which involved sending relevant, location-specific information to followers. Typically, the user would report on events as they were occurring and combine that with personal, opinion related commentary (Erickson, 2010).

On a similar note, Twitter users can also become citizen journalists by breaking news to others through disseminating information or documenting events with photographs and videos (Murthy, 2011). For example, when US Airways flight 1549 crashed, a Midtown Ferry passenger had taken a picture and uploaded it to Twitter before it was even covered by news agents (Murthy, 2011). Murthy (2011) also discussed the 2008 Mumbai bombing and the way that Twitter users gave eyewitness accounts and started a trending hashtag, #mumbai, that generated so



much traffic that the Indian government requested Twitter to stop updating the feed for fear that the terrorists were using it to organize. The blend of instantaneous updates, concise messages, and the ability to incorporate photographs makes twitter an ideal method for disseminating information to mass numbers of people quickly and efficiently. In Egypt, the quick and efficient dissemination of information transformed Twitter into an alternative source of news for citizens and people across the world (Hamdy & Gomaa, 2012).

Several researchers have examined how Twitter functioned as a news site during the Egyptian Tahrir Square protests. For example, Lotan and his colleagues (2011) explored how Twitter emerged as a news site in the Tunisian and Egyptian revolutions, seeking to understand the main actors involved in updating Twitter with information related to the protest and the flow of information across Twitter. They concluded that "news on Twitter is being co-constructed by bloggers and activists alongside journalists" (Lotan et al, 2011), people who are directly connected to the event, mainstream media who want to learn more about the event so they can provide up to date coverage, and other general readers interested in the event. Hence, Twitter was a site for professional and citizen journalism. Hamdy and Gomaa (2012) also examined Twitter as a news source, comparing the frames social media (not limited to Twitter) used by Egyptians during the protests with frames employed by the government media and other independent media. They determined that social media framed the Egyptian uprising using a human-interest lens, defining the protest as a revolution and "emphasized the suffering and resiliency of ordinary Egyptians in the face of a repressive regime" (Hamdy & Gomaa, 2012).

In addition to the human-interest frame that emerged through the use of social media during

the Egyptian uprising, Papacharissi and de Fatima Oliveira (2012) documented use of an affective frame as well during their analysis of Tweets from the Egypt protests. They highlighted the collaborative effort of Twitter users in constructing news during the Egypt protests, generating a concept of "affective news streams" (Papacharissi & de Fatima Oliveira, 2012). This concept identifies the merging of experience with opinion, observation, and emotion, thus framing events in an affective manner. These affective frames not only influenced how participants anticipated future events, but also fostered a sense of community among participants involved and further influenced other publics' responses to the event as they could "watch" this "always-on" source of news without having to rely on mainstream media for an explanation.

Papacharissi and de Fatima Oliveira's (2012) concept of affective news streams closely relates to Erickson's concept of "citizen micro broadcasting," or Twitter users' combination of factual information with personal, opinion related commentary when reporting on events. Hence, actors tweeting the events of the uprising at Tahrir Square acted not only as citizen journalists, but also as citizen micro broadcasters, reporting events combined with their opinions and emotions. Despite this information about the content of tweets during the Egyptian protests, we know little else about the information conveyed via Twitter during the Egyptian uprising. To come to a better understanding of how Twitter users acted as citizen journalists and micro broadcasters, we examine first hand data from tweets about the January 25, 2011 Tahrir Square protest in Egypt, guided by the following research questions:

RQ 1: What percent of the tweets contain logistical information?

RQ 2: a) What is the most common type of general information shared? b) What percent of



the tweets contain information about police activity? c) What percent of the tweets contain eye witness accounts?

RQ 3: a) What percent of the tweets contain public outreach? b) What is the most common form of public outreach?

RQ 4: a) What percent of the tweets include opinion sharing? b) What is the primary opinion shared overall?

RQ 5: a) What is the most common opinion expressed in tweets regarding the event? b) Regarding the participants?

In addition to evaluating how Twitter users acted as citizen journalists and micro broadcasters during the January 25th Egyptian Revolution, Twitter users could also be evaluated as communities coordinated through social media. There are two main types of communities: intentional, or people who join together for a specific reason who are unified by language, location, or culture, and ad hoc, or people who form a spontaneous community in response to a crisis or threat (Wood & Smith, 2005). The Egypt protest could be seen as a blend of these two community types. First, the members using the corresponding hashtag, #Jan25, are intentionally joining a group of people who feel similarly about the government, and could be united by a particular type of language as it comes to talking about the event. Second, the members are responding to the actions of their corrupt government and expressing their dissatisfaction.

Through expressing dissatisfaction, the users of social media are taking advantage of the space the Internet provides to express dissent. The Internet can be viewed as a space for imagining alternatives to dominant power structures, constituting what Wood and Smith (2005) defined as discursive resistance. In the Egyptian revolution, as already noted, activists used social media as a venue to engage in free speech and

discuss political topics and to plan and organize protests (Howard et al, 2011; Khamis & Vaughn, 2011; and Lim, 2012). Furthermore, Lim (2012) noted that social media helped spread the appeal of democratic ideals. Thus, as Fahmi (2009) explained when examining the Egyptian blogosphere, the Internet became "spaces of freedom" for Egyptians. To further examine these issues of dissent and community formation on Twitter during Egypt's January 25 revolution, we further propose the following questions:

RQ 6: What are the most common linguistic features in the tweets?

RQ 7: What is the most common theme in the tweets?

III. METHOD

Content Analysis

Content analysis was used for this study. Content analysis is a "systematic, step-by-step procedure used to answer research questions and test hypotheses" (Frey, Botan, & Kreps, 2000). The purpose of this approach is to "identify, enumerate, and analyze occurrences of specific messages and message characteristics embedded in texts" (Frey et al., 2000). Krippendorff (1980) described four reasons to use content analysis over other methodologies: first, it is unobtrusive because of the focus on existing texts; second, it is unstructured material that is categorized; third, it is examined in context; and fourth, it can handle large amounts of data. It involves a five step process: sampling texts, choosing features to code, developing categories, training coders, and analyzing data (Frey et al., 2000).

Sampling Process

The protest in Egypt began on January 25, 2011. To capture organizational efforts that would be focused on the initiation of the protest, tweet samples were pulled from January 24, 25, and 26.



These three dates were chosen to analyze pre-event, day-of, and day-after tweets of the event. Twitter does not authorize release of large amounts of raw data, so researchers utilized a software tool to pull tweets by date and search term. The hash tag #jan25 was used to identify related tweets. This hash tag was chosen because it was the most common hash tag used by participants. The team translator converted tweets written in Arabic to English to facilitate coding. This process resulted in 786 tweets, including 245 tweets from January 24, 283 tweets from January 25, and 260 tweets from January 26, for final analysis.

Selecting Unit of Analysis

Each tweet was examined as its own unit of analysis. While some tweets contained multiple phrases, the short length of 140 characters made it difficult to break the tweets into smaller phrasings. Also, not all tweets contained multiple words. Some consisted only of hyperlinks, hash tags, or other single words. However, due to the fact that each tweet referred to a particular event and that we were seeking the meaning users were attaching to that event, these could be defined as referential units (Frey et al., 2000).

Category Development

The primary researcher developed the list of categories for the code book using the research questions as a guideline. As the coding proceeded, coders tracked any findings that fell into the “other” category in order to add additional ones, but no significant additions were found. The referral category focused on tweets that referenced outside information. This took the form of URLs/hyperlinks,ⁱ pictures,ⁱⁱ or videos.ⁱⁱⁱ Tweets coded as sharing event logistics were those providing the date,^{iv} location,^v time,^{vi} or other logistical information,^{vii} like restaurant or bathroom locations. General information sharing

included information related to the protest, but not to logistical information. Tweets coded for this contained things like event consequences,^{viii} eye witness accounts,^{ix} police or military activity,^x and other types of general information.^{xi} Opinion sharing referred to any opinion expressed within the tweet. This was divided into two topics, opinions about the event^{xii} and opinions about participants.^{xiii} Tweets with public outreach were those that targeted followers or media and celebrity figures for attention (usually in the request for retweets),^{xiv} supplies (such as food or camping equipment),^{xv} help (like rides to the event),^{xvi} information,^{xvii} or other types of outreach.^{xviii} Lastly, linguistic features included things like joke/sarcasm/irony,^{xix} swearing/cursing,^{xx} slang,^{xxi} or other linguistic features^{xxii}. For more detail, see table 1.

Table 1. Tweet classification categories

Category	Subcategories (; represents different subcategory)
Referral	Refers to URL; picture; or video
Event logistics sharing	Provides the date; location; time of the event; or other logistical information
General information sharing	Sharing information about event consequences/impact; eye witness accounts; police/military activity; and other general information
Opinion sharing	Presents positive/affirming opinion about the event; negative/critical opinion about the event; neutral opinion about the event; positive/affirming opinion about participants; negative/critical opinion about participants; or neutral opinion about participants
Public outreach	Request for attention; supplies; help; information; or other outreach
Linguistic features	Overt joke/sarcasm/irony; swearing/cursing; slang; or other linguistic feature



In addition to doing a referential unit analysis, researchers also conducted a thematic unit analysis. The primary researcher developed themes using the research questions, and expanded the list as the coding team identified additional thematic content. The final list included 11 themes: expressing anger towards the “system,” expressing anger toward business/corporation, expressing anger toward the government, mobilizing by requesting for more participation, mobilizing by negative statements of non-participants, expressing well-wishes to the participants, objective, praise of the event, comedic, critical, and other.

Expressing anger towards the “system” included any anger towards the structure of society.^{xxiii} Expressing anger towards business/corporation was similar, but with anger aimed at the economy or large businesses.^{xxiv} Expressing anger towards the government included political parties, politicians in specific, police, or the military.^{xxv} When coding for mobilization through the request for participation, coders focused on direct requests for participation or subtle appeals for people to come join the event.^{xxvi} Coders also included reminders about the event or sharing the schedule with positive affirmation of the event. With mobilizing through negative statements of non-participants, coders looked for passive-aggressive requests for participation, typically by insulting or making derogatory statements about people who did not, or would not, participate.^{xxvii} Expressing well-wishes involved encouragement towards the participants, or wishing them well in their endeavors.^{xxviii} Objective tweets were those that were typically strictly relaying information or referring to outside sources, like news stories.^{xxix} Praise of the event meant that the tweet included praise of the event itself.^{xxx} Comedic tweets were those that talked about the event or participants in

a comedic way, including pop culture references.^{xxxi} Critical tweets were ones that expressed criticism of the event or participants.^{xxxii} Lastly, tweets classified as “other” were those that did not fit any other category.^{xxxiii}

Coder Training

The primary researcher conducted two training sessions with the coding team. During the first session, the team reviewed the codebook, sample tweets, and coded five samples together. Each team member was then given 20 tweets to code independently for assessing intercoder reliability. The primary researcher compiled the information and conducted a second training wherein differences were discussed and refinements for the codebook suggested. The team added a few rules and clarified some of the categories for coding, and repeated the process until the intercoder reliability achieved .91.

Analysis

Researchers split the 786 tweets between a team of three coders. Coders used a coding handbook to analyze tweets based on the categories detailed previously. Coders utilized Microsoft Excel to compile the information, which was later input to SPSS for statistical analysis. The majority of the categories were not mutually exclusive, as tweets could contain multiple features and were examined for the presence of any of the variables of interest. The mutually exclusive categories included: originality (original content versus retweet), targeting (directed at another user or non-directed), the major category headings (as a function of total tweets), and the overall theme of the tweet. The subcategories beneath the major category headings were not mutually exclusive

IV. RESULTS

To provide an overview of the data, we examined general categorical information to capture some



detailed information about the format of the tweets. We examined the originality of tweets, comparing original content to those that are retweeted from other users. The results showed that there were more retweeted messages (58%) than the original tweets (42%), indicating that a lot of users re-sent messages that others had written, rather than creating their own messages. A second category examined was that of targeting, which was separated to directed and non-directed messages. A directed message was coded when a user sends a direct tweet to another user using his or her screen name. A non-directed message was coded when a user sends an open message to his or her followers. The majority of messages (84.6%) in this category were non-directed messages, meaning that they were sent out as open targeting. Lastly, we examined the referrals made within the tweets, specifically looking for weblinks, videos, or pictures. Some tweets in this category contained multiple referrals, so the counts are not mutually exclusive. In total, 131 tweets (16.7%) contained some type of referral. The primary type of referral contained a URL or hyperlink to another website (10.5%), followed by referrals to pictures (3.2%) and referrals to video (3%). For more details, see table 2.

Table 2. General tweet characteristics

Characteristic	N	(% of total tweets)
Originality		
Original Tweet	330	42
Retweet	456	58
Targeting		
Directed at Target	121	15.4
Non-directed	665	84.6
Referral	131	16.7
Outside source: Link/ URL	83	10.5
Outside source: Picture	25	3.2
Outside source: Video	24	3.0
No referral	653	83.3

To address the first research question regarding logistical information, coders analyzed tweets for several logistical information features. The features coded were date, location, time, and other, which included things like restaurant/hotel/bathroom locations and hash tags to follow for key information. Coders also examined the general information shared in the tweet, which included information about event consequences or impact, eye witness accounts, police and military activity, and other information like the reasons for the event or tools to use for sharing information with other participants. First, the primary researcher compared the different types of information sharing to see which was more prevalent: logistical information or general information. In answer to research question one, 56.6% of all tweets contained logistical information, which was consistent with the findings discussed by Ems (2009).

To answer the second research question about general information sharing, 39.7% of all tweets were found to have those features. The highest percentage (20.4%) of tweets contained information about police or military activity. This was consistent with Ems' (2009) findings, which indicated that one of the most common themes in Twitter usage during protests was to share information about police activities. Tweets detailing the consequences or impact of the protest events consisted of 12.3% of the total sample, and tweets containing eye witness accounts consisted of 12.2% of the total sample. This is consistent with Erickson's (2010) findings about citizen micro broadcasting, due to the eye witness accounts and related commentary to the event. For more information, see table 3.



Table 3. Tweets containing information sharing

Characteristic	N	(% of all tweets)
Event logistics sharing	444	56.6
Provides date	366	46.4
Provides location	104	13.2
Provides time	58	7.4
Provides other logistics	4	0.5
General information sharing	311	39.7
Police/military activity	161	20.4
Event consequences/ impact	97	12.3
Eye witness accounts	96	12.2
Other general information	13	1.6

Coders evaluated for public outreach based upon five categories: request for attention, or appealing for retweets from followers and for national media attention; request for supplies, including food, materials or money; request for help, whether seeking to contact someone at the event, finding rides to the protest, or something else requiring another person’s assistance; request for information, including seeking clarification or understanding about the event; and other requests not included above. In response to the third research question, we found that 16.6% of all tweets contained some type of public outreach. The highest percentage (6.9%) of tweets contained requests for information. The second highest percentage (5.6%) of tweets contained requests for help, followed by requests for attention (3.6%). See table 4.

Table 4. Tweets containing public outreach

Characteristic	N	(% of all tweets)
Public outreach	130	16.6
Request for information	54	6.9
Request for help	44	5.6
Request for attention	28	3.6
Request for supplies	12	1.5
Other outreach	11	1.4

To evaluate the presence of affective news stream, coders examined the presence of opinions in each tweet. In addition to examining the existence of an opinion, coders differentiated between opinions about the event and about the participants. This subcategory was mutually exclusive. The results indicated that just over one-third (36.5%) of all tweets include some type of opinion sharing. The primary opinion shared amongst Twitter users was positive about the event (20.2%), followed by a positive opinion of event participants (9.8%). The results suggested that the majority of users who tweeted about the Egypt protest were supporters and not critics of the movement. See table 5.

Table 5. Tweets containing opinion sharing

Characteristic	N	(% of all tweets)
Opinion sharing	286	36.5
Positive/affirming of event	159	20.2
Positive/affirming of participants	77	9.8
Neutral of participants	31	3.9
Neutral of event	22	2.8
Negative/critical of participants	13	1.6
Negative/critical of event	11	1.4

Twitter users have an imagined audience that impacts the word choice and linguistic markers of their tweets (Marwick & boyd, 2011). This is also a characteristic of community, in which members have a language to unite members of that community. To examine the linguistic features in the tweets, coders examined messages for humor (jokes, sarcasm, and irony), swearing/cursing, slang, and other markers. Slang included improper words or “text talk,” abbreviated acronyms that aid in staying within the 140 character limit. For example, “ty” stands for “thank you.” In total, 14.4% of the tweets contained some type of linguistic feature. The most common linguistic feature was slang (6.3%), followed by humor (6.2%). Tweets that contained swearing and cursing represented 2.2% of the total sample.



These results indicated that there is a specific lingo that is used in Twitter as part of the community. For more detail, see table 6.

Table 6. Tweets containing linguistic features

Characteristic	N	(% of all tweets)
Linguistic features	113	14.4
Slang	50	6.3
Joke/sarcasm/irony	49	6.2
Swearing/cursing	17	2.2
Other	3	0.4

Thematic analysis provided a way to examine each tweet in a mutually exclusive way to identify the key frame in the tweet. To examine these themes, coders examined each tweet to identify the main content and purpose of the message. Comparing the themes provided a way to view the main point of each tweet about the protest, and to examine the efforts to dissent or create spaces of freedom. After comparing the information, the primary researcher combined similar themes to produce more comprehensive data, and eliminated themes that were not relevant to the study, like the “other” theme. In the end, the most common theme among the tweets was the objective theme (40.1%). This represented references to news stories, factual information, or other tweets that did not have any obvious opinion within the content. This indicated that the twitter users discussing the Egypt protest primarily used it as a way to disseminate information, and less as a platform for opinions.

The second most common theme was that of expressing positivity (19.7%), which included positive opinions of the event and its participants. The third most common theme was that of expressing anger (18.8%), which were predominantly tweets expressing anger toward government (17%). The fourth common theme was mobilization (13.9%), which were mostly

tweets requesting for participants to join the protest (12.9%). Some (2.3%) tweets expressed criticism toward the protest events, and a very small percentage (1.4%) of the tweets made fun of the events. See table 7 for more information.

Table 7. Theme of tweet

Characteristic	N	(% of all tweets)
Objective	315	40.1
Express positivity	155	19.7
Praise of event	106	13.5
Express well-wishes	49	6.2
Express anger	148	18.8
Express anger toward government	134	17.0
Express anger toward business/corporations	10	1.3
Express anger towards “system”	4	0.5
Mobilization	109	13.9
Mobilizing- request for participants	101	12.9
Mobilizing- passive aggressive attacks	8	1.0
Critical of event	18	2.3
Comedic	11	1.4
Other	28	3.6

V. DISCUSSION

The findings of this study expand existing literature on social media usage in protest movements by providing an analysis of the actual tweets versus news about the tweets and by examining a large protest movement in Egypt that was largely broadcasted and discussed through online social media. Erickson (2010) and Ems (2009) both discussed the importance of sharing information through micro broadcasting and geographic distribution, and these findings corroborate those results while pointing out some salient differences. With over half of all of the tweets using the #Jan25 tag containing logistical



information, it is clear that Twitter was used as an organizational tool to share information and coordinate efforts.

Ems (2009) found three popular trends in Twitter data when analyzing the news stories about protest movements. Her top three findings were that Twitter was used to “organize protests, get information to media outlets...or to avoid police in the streets” (Ems, 2009). The findings of this study correlate in some respects, but contradict them in others. Logistical information accounts for a large number of tweets (56.6%), which correlates with her first theme. Ems (2009) found that the second theme was reaching out to media. The results of this study indicate that while media outreach accounted for some tweets (3.6%), by far the second highest category was that of opinion sharing (36.5%). This indicates a difference between these two studies. The third theme Ems (2009) discussed was that of police activity. The findings of this study parallel these results, with 20.4% of all the tweets containing information about police and military activity.

While not completely negating the results of Ems study, our findings do show some interesting differences. This would indicate that the type of protest event being organized may encourage different types of information to be shared. The protests that Ems (2009) examined vary by country and purpose of protest, and each one differs from the exact nature of the protest in Egypt. This could account for the variation between our results. The other possibility is that the limitation of Ems’ (2009) study may account for the difference in results. Specifically, Ems (2009) examined media representation of Twitter usage rather than the tweets themselves, so this could indicate that the media chooses certain aspects of social media usage during protests to discuss over others, which may not be an accurate

representation of how it is actually used by participants.

The high representation of personal accounts (24.5%, including eye witness accounts and event consequences), details on police and military activity (20.4%), and the lack of referrals to outside sources (83.3% non-referring tweets) indicates that users in Egypt were more focused on sharing personal thoughts and experiences versus sharing information about or from the media. This correlates with the affective news stream discussed by Papacharissi and de Fatima Oliveira (2012). Rather than relaying information generated from other sources, protestors shared eye witness accounts of the event, their personal opinions about the revolution, and provided minute-by-minute accounts of the protests themselves. It also correlates with the assertions made by Khamis and Vaughn (2011), as they argued that Twitter became a way to disseminate information as the event occurred, both within and outside of the country. The data in this study exemplifies the unification of experience, opinion, and observation, thus positioning Twitter users during the Egypt protest as citizen micro broadcasters (Erickson, 2010).

Opinion sharing is certainly an important feature of using Twitter during a social protest, as this study did show some interesting results in terms of the main opinions expressed on the hashtag. While tweets are public and accessible by anyone, the primary opinions expressed using this hashtag were those supporting the movement itself. Of the 286 tweets with opinions, only 24 (3%) of them were critical of the event or the participants. While there is this presence, the vast majority of opinions expressed are in support of the protest and its participants. When combined with the results of the thematic analysis, which revealed only 2.3% of tweets having an overall theme of being critical of the event and



participants, these results indicate that individuals who disagree with the movement are not nearly as active as those who are supportive. This could be tied to the idea of affective news stream (Papacharissi & Oliveira, 2012). This study finds that opinion sharing is a high percentage of the overall tweets (36.5%). Most people express the same type of opinion, which correlates with what affective news stream says about creating community, and thus framing an issue in a particular way.

Another feature of community presence is a cohesive linguistic similarity, with results showing 14.4% of all tweets containing linguistic markers, with slang emerging as the leading linguistic marker. In addition to common linguistic features, this community also showed a high number of retweeted messages. Due to the majority (58%) of the messages being recycled content, this indicates that users identified with things other people were posting and reutilized them in their own network of followers. Rather than crafting their own messages, users often rely on fellow community members for content to share with their followers.

In addition to having a strong community element, the protest in Egypt could be seen as an attempt to move utopian rhetoric, which is an ideal form of interaction that cannot exist and is inaccessible, into a rhetoric enacting actual change by creating a physical space in which to defy existing power structures. Through the creation of a community of followers who are in agreement with one another, as seen in the high positive opinions expressed via Twitter, the protestors shift from an online medium that may be incapable of establishing a physical dissent to one located in a particular space. Wood and Smith (2005) enact a form more similar to agonistic rhetoric, wherein they construct “ritualized conflict with an established order.” There is evidence for this in

the large number of tweets (56.6%) containing logistical information needed to participate in the event, along with the 13.9% of tweets aimed at mobilizing participants.

One of the more significant results of this data was the high percentage of tweets expressing anger (18.8%), and more specifically, anger towards the government (17%). This was the third most common theme amongst all of the tweets, and is indicative of the underlying emotional state of participants. As discussed, this protest movement was rooted in dissatisfaction with the government, and participants merely turned to social media as a way to share those experiences and opinions with others (Aouragh & Alexander, 2011; Khamis & Vaughn, 2011; and Lim, 2012). Looking at the raw data as written by participants reveals a common theme of anger motivating the desire to gather participants for a large, organized protest event.

Overall, the results of this study support some findings in previous studies, but also show some unique features that may be tied to the type of protest movement itself. Our findings indicate that in the Egypt protest, Twitter is a tool primarily used for sharing personal experience and opinions, information about police and military activity, and logistical information to create a unified community and mobilize individuals to participate in a physical space of protest.

Some limitations of this study are associated with the internet medium. First of all, the information provided in the tweets cannot be guaranteed to be accurate. As Goolsby (2009) found, tweets can be “misleading, incorrect, or even fraudulent.” There are also no guarantees that the individuals posting are who they say they are, nor that they are doing what they say they are doing. Without contacting each user individually, it is impossible to know if they acted on the things that were tweeted. Another limitation is the date



range and sample size. Future research should look at a longer time span and a larger sample of tweets. Also, the choice of the hashtag could unintentionally exclude tweets that were related to the protest event. While we used the date hash tag, there is always the risk of missing relevant data when utilizing online social media.

The usage of social media in protest movements is an expanding field, one with rich amounts of data and research opportunity. Future research should further explore the effectiveness of using social media in the engagement of civic participation. It is difficult to track whether users who tweet about protests actually participate in the movement itself. It would be valuable to see if the way that Twitter is used is actually successful in generating more participation, identification, or involvement in the protest.

Other forms of social media should also be examined. With the advancement in smart phone technology, people have greater ease and mobile access to the Internet and social media tools. With the shift in access moving from laptops to smart phones, issues of community development and imagined audiences may be shifting. Future research should explore these areas in more detail. As Tufekci and Wilson (2012) note, research on social movements should also look at the contextual information when researching protests. Each protest takes place within a particular time and political setting, which is an equally important aspect of community as that generated on the Internet (Tufekci & Wilson, 2012). Rather than studying social media in isolation, more research should be done that combines an analysis of the offline aspects in conjunction with online research. While these topics were outside the scope of the present study, they would provide valuable insight into social media and its impact on the way people organize and engage with protest movements.

VI. ACKNOWLEDGE

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Endnote:

ⁱ Example: @rafeeq "Support #Jan25 Egypt Uprising, add a #twibbon now! - <http://twb.ly/eGUB91> - Create one here - <http://twb.ly/f02AU3>"

ⁱⁱ Example: @YBW13 "RT @AlyaaGad: #Jan25 Tips! <http://www.facebook.com/photo.php?fbid=493802570697&set=a.401779815697.176190.357911695697&theater>"

ⁱⁱⁱ Example: @AhmedMoneim "Remember ... Remember the 25th of January ... Someone Will Do Something Stupid <http://youtube/zMKqKruzZro> #Egypt #Jan25 via @ashraf_gawdat"

^{iv} Example: @mar3e "@wael Security forces to deal strictly with 'illegal' 25 January protest <http://bit.ly/ezPboz> #jan25 #Egypt #Police #Pigs"

^v Example: @mar3e "RT @monaeltahawy: #Egyptians in #NYC, #Jan25 rally 1pm-2pm in front of #Egypt Permanent Mission to UN, 44th St. between 1st and 2nd Ave. ..."

^{vi} Example: @marionnette90 "RT @ManarMohsen: Information about the #Jan25 protests in #Egypt, including their locations and times, is available here: <http://bit.ly/> ..."

^{vii} Example: @littlelisa8 "@anonops: Call (877) 881-3020 for Help & Directions for #OccupyWallStreet #Sep17 RT"

^{viii} Example: @Camilladiggity "RT @bettinakriens: Twitter blocked in Egypt as thousands of protesters call for government reform! World please Re-Tweet!! - #Jan25 # ..."

^{ix} Example: @NonaShahin "RT @Alshaheed: Whole of Tahrir square is one massive cloud now with more than 50 tear gas cannons fired #Jan25 #Egypt"

^x Example: @romalistic "RT @salmaeldaly: the police have retaken Tahrir square after firing tear gas and rubber

bullets at protesters #Egypt #Jan25"

^{xi} Example: @strawprophet "RT @YourAnonNews: The Hipster's Guide To The Revolution: <http://t.co/obJ7XXGd> via @NYULocal #USDOR #sept17 #occupywallstreet"

^{xii} Examples: @iDhoom "Proud of this spirit, spirit that shout with thunder voice : Egyptians Deserve better Egypt! Deserve Freedom! #jan25"; @Gamool "I do not believe that #Jan25 strike will make a change. Let's face it. #Egypt"

^{xiii} Examples: @teeneagle "RT @NesrineBR1: from #sidibouzid in # tunisia :good luck guys, all eyes on #egypt on #Jan25"; @wenders1022 "I've been to PTA meeting of 10 where nothing can get done. Do the #occupywallstreet crowd really think they can strategize with bullhorns?"

^{xiv} Example: @SadekHM "RT @weddady: URGENT: REQUEST to ALL EUROPE & US tweeps on #Jan25 PLEASE ASK YOUR MEDIA TO COVER #EGYPT NOW"

^{xv} Example: @FireLin01 "RT @8Voiceleaks8: RETWEET EGYPT NEEDS MED SUPPLIES AND VOLUNTEER DOCTORS! AMPLIFY THEIR VOICE! <http://bit.ly/iehGIL> #Egypt #jan25 #voice ..."

^{xvi} Example: @MeeMMaa "RT @monasosh: We need doctors to head to hisham mobarak, 3 badly injured and we need help #jan25"

^{xvii} Example: @Staedtler_8 "@MASwad Would the protests take place inside the university? #Jan25"

^{xviii} Example: @rafeeq "Support #Jan25 Egypt Uprising, add a #twibbon now! - <http://twb.ly/eGUB91> - Create one here - <http://twb.ly/f02AU3>"

^{xix} Example: @hatimzaghoul "RT @Ghonim: A government that is scared from #Facebook and #Twitter should govern a city in Farmville but not a country like #Egypt #Jan25"

^{xx} Example: @ehaitham "Khairy Ramadan is so full of Bull Shit! #MasrEnaharda #Jan25"

^{xxi} Example: @Sandmonkey "I had to head home. People r spending the night. Thousands r there. People bringing blankets *nd sharing food. Pass by 2morow. #jan25"

^{xxii} Example: @AnonPanama "MAÑANA POR LA NOCHE TOMAREMOS WALL STREET #Occupywallstreet medios esten atentos... @tynpanama @Telemetro @IvanDonosotv @mariapiazubieta"

^{xxiii} Example: @_aHussein "@StateDept we dnt need ur



support, we know how to get our rights from a dictator u supported for decades to suppress us #jan25”

^{xxiv} Example: @whatzaname “RT @BABYDIABOLICAL: We Are The 99% that will no longer tolerate the greed and corruption of the 1%. #OccupyWallstreet bit.ly/o8XPqy”

^{xxv} Example: @amrebaid “RT @Ghonim: Dear politicians trying to claim credit and ask for demands on behalf of us: FUCK OFF! #Jan25 is ours!”

^{xxvi} Example: @AhmedAmer “@anthonyedwards @ellepiari support #egypt #jan25”

^{xxvii} Example: @MrGlasco “#AnnoyingThingsPeopleSay “I’m ready for a change!!” ...while taking no action -- #occupywallstreet”

^{xxviii} Example: @teeneagle “RT @NesrineBRI: from #sidibouzi in # tunisia :good luck guys, all eyes on #egypt on #Jan25”

^{xxix} Example: @mar3e “Egypt to face its first Tunisian-inspired protests <http://wapo.st/gPeEtU> #Egypt #Jan25”

^{xxx} Example: @_aHussein “RT @Lubna_Lasa: The revolution is not an apple that falls when it is ripe. You have to make it fall. Che Guevara #Egypt #Jan25 #Revolution”

^{xxxi} Example: @MetalPharoah “I like the smell of the revolutionary Fart #jan25 #egypt #revolution”

^{xxxii} Example: @wenders1022 “I hope the #occupywallstreet crowd isn’t using Twitter to organize, considering Twitter is a corporation & therefore evil.”

^{xxxiii} Example: @HopefulMona “RT @Elshaheed: 25/1/2011: 25 + 1 + 2 + 1 + 1 = 30 ☐ ☐ ☐ #Jan25”