#IslamicState: An Analysis of Tweets in Support of ISIS After the November 2015 Attacks In Paris

by

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Abstract

With the popularity and ease of using social media platforms, users are able to, in varying capacities, connect with others in varying capacities. During 2015, there were approximately 305 million worldwide active monthly Twitter users. While Twitter has maintained implementation of their counter-extremism policies, supporters of ISIS have found ways to navigate around them and continue to use their platform as a means to connect with others. With 140 characters per Tweet, ISIS supporters are able to recruit and promote propaganda quickly with users around the world. By using a data set containing 16,841 Tweets from 104 ISIS supporters following the November 2015 attacks in Paris, a content analysis will be conducted on the tweet itself to look for reoccurring themes and keywords. By understanding the keywords and reoccurring themes, military, law enforcement, and private sector counter terrorism units can better understand and implement policies and procedures relating to ISIS and the ways that they continuously navigate around the counter-extremism policies on Twitter.

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CHAPTER 1 INTRODUCTION

The Internet has developed one of the fastest ways for individuals across the globe to communicate with each other. With the access of the internet, social media websites have become one of the most popular ways to stay in contact with family and friends, or even expand networks and meet new people. According to data from Statista, 71% of all internet users are using social media platforms and there are currently 2.51 billion social media users worldwide (Statista Worldwide, 2018). Via websites like Facebook, YouTube, and Twitter, sharing information on both a public and a private scale can be done in seconds. With the many benefits that social media sites have to offer, terrorists are taking advantage of these global platforms.

With an average of 330 million monthly active users, Twitter has become one the leading social media platforms worldwide (Twitter, 2018). Twitter provides the capability for users to post pictures, links, and other messages all referred to as Tweets in order to "spark a global conversation" (About, 2018). Through the global networking capabilities of Twitter, supporters of the Islamic State of Iraq and Syria (ISIS) are able to connect to each other across the world. Currently, Twitter has specific polices that do not allow violent threats or the glorification of violence; however, they do not have any policies that are specific to supporters of criminal or terrorist networks. Should an ISIS supporter post content that violates the anti-violence policies, both the user and the activity are removed and banned from Twitter. However, ISIS supporters are circumventing Twitter's polices and finding ways to connect back to the global networks that they have established on the platform.

Social media platforms have taken notice of terrorists utilizing their services and have begun to implement policies that take action against the users who post violent or threatening content online by banning the user altogether. There are also multiple civilian groups who voluntarily monitor Twitter users who post content in support of terrorism and violence and work to continuously flag those users to Twitter for review and possible account suspension. However, because terrorism can be somewhat of an open-ended topic, a singular global definition has not been agreed upon by agencies and governments. In fact, the very understanding of the definition has brought about several debates on what exactly is the definition of terrorism (White, 2002). According to the Federal Bureau of Investigations (FBI) terrorism is "the unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives" (Terrorism in the United States, 2017). On the other hand, Title 22 of the U.S. Code, Section 2656f(d) defines terrorism as "premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience" (Counterterrorism, 2007). (See Appendix A for a complete list of definitions.) It is important to understand just what an act of terrorism is, and what makes a person a supporter of terrorist movements in order to not only analyze the online presence, but also create polices and counter terrorism measures for social media platforms.

ISIS emerged in Iraq in the early 2000's under the leadership of a former criminal and Islamist, Abu Musab al-Zarqawi in Iraq. He originally led the group to fight with other resistance members, the Mujahidin, against the United States after they invaded the areas surrounding the Sunni and Shia Muslims in Iraq (Gerges, 2017). The Mujahidin's goal was to form a Muslim controlled area called a caliphate, or Islamic State. The group upholds extreme and often

manipulated Islamic and Sharia beliefs in order to evoke violence among not only Christians, but other Muslims as well. According to Mahood and Rane (2016), Islamism is considered a political ideology whose foundation lies on religious interpretations derived from the Quran and its prophetic traditions. As stated by Mozaffari (2007), the goal of Islamists is to reorganize the Muslim societies and states according to the values, norms, institutions, and systems, which they have declared to be Islamic. Over the years, they have developed a successful form of cyber radicalization that targets a younger, impressionable, population (Basit, 2017). ISIS has been credited with inspiring not just local members, but homegrown terrorists and lone wolves in other countries with their popularized narratives and propaganda. During the timeframe surrounding the attacks in Paris on November 13, 2015, they had gained more than approximately 20,000 foreign fighters from as many as 90 different countries (Katzman et al., 2015).

Over the years, multiple pro-ISIS cyber and hacking groups have emerged, expanding ISIS's internet presence. Rowe and Saif (2016) define an ISIS online supporter as someone who exhibits behavior such as positive language in support of ISIS, or the sharing of content from other ISIS supporter accounts (Rowe and Saif, 2016). From creating narratives and propaganda that mirrors popular media such as video games, television, and movie references, to hacking into infrastructures, the "cyber jihad" has proven that it poses a threat (Scott, 2016). Although the word jihad has several different meanings according to the cultural background of the person using the term, the Arabic definition refers to a secular, holy war (Cook, 2015). The internet has become a virtual playground where ISIS members portray themselves as glamorized, cyber "rock stars" (Awan, 2017). To help their online presence, ISIS created an application (app) named "The Dawn of Glad Tidings' in 2014, which was available for download from the Google play

store. However, once the app was detected by federal authorities, it was removed and deleted entirely. The app was monitored by ISIS's social media team and allowed users to efficiently locate and monitor all links, hashtags, tweets, comments, and videos posted by other pro ISIS users on Twitter (Awan, 2017).

A main focal point in understanding and analyzing terrorism has been centered on terrorist's communication networks. Terrorists have gone from mailing videotaped messages to other trusted militants, to presently using a multitude of social networking sites on the internet that allows them to have quick and concise communication. The former leader of the Al Qaeda, Ayman al Zawahiri, now deceased, was quoted in 2002 as saying: "We are in a battle, and more than half of this battle is taking place in the battlefield of the media" (Jenkins, Godges, & Dobbins, 2011:3). More than a decade later, that quote still stands and continues to shape the way that terrorist organizations have created their own media groups to spread their propaganda.

The manner that ISIS has been using social media has sparked the interest of numerous researchers. The Brookings Institute claimed that although much of the research had been conducted on ISIS and social media, basic questions had been missed and require closer scrutiny (Berger and Morgan, 2015). To address this issue, they created one of the most well-known documents, The Twitter ISIS Census, which examined 20,000 accounts of ISIS supporters found on Twitter (Berger and Morgan, 2015). That research provided a demographic snapshot that examined the username, location, and date of account creation related to the user and the account; however, they did not examine the contents of the Tweet. (See Appendix C for more of their findings.) While it is important to understand the demographics of ISIS supporters, it is even more crucial to evaluate the content of their messages to learn if there are certain key words or themes to help broaden our understanding of their social media presence.

One group of researchers conducted a very broad examination into the content of ISIS supporters Tweets. Bodine-Baron et. al (2016) performed a lexical analysis of ISIS supporters' presence on Twitter and found that their posts could be categorized based on themes such as positive messages of belonging and religion; political themes that insult other countries or communities; and sophisticated social media tactics to spread their propaganda (Bodine-Baron et al., 2016). However, no it appears no studies have examined Tweets after a specific attack made by ISIS or used a sociological framework to form correlations of the user's Twitter data and analyze the contents of the Tweets.

This thesis provides a content analysis of 16,841 Tweets following the 2015 attacks in Paris, France. During a sequence of attacks, nearly 130 people were murdered and approximately 100 individuals were injured due to both suicide bombers and gunmen who pledged their allegiance to ISIS (Cragin, 2017). The tweets that were analyzed were posted after those attacks took place by Twitter users who supported ISIS beginning November 15, 2015 and ended six months later on May 13, 2016. The commonalties found across the Tweets were analyzed to provide a sociological perspective. The objectives of this research were to analyze the data, find commonalties and trends among the data, to be able to provide stakeholders a framework for counterterrorism measures. The conclusions drawn from the analysis will provide lawmakers, agencies, researchers and other governmental organizations a better understanding of how pro ISIS supporters are using Twitter. With this information, the stakeholders will be provided an invaluable viewpoint when analyzing counterterrorism measures needed to ensure that the social media platforms are not being taken advantage of supporters of ISIS.

Chapter 2 Background Research

2.1 Twitter

Twitter has been popularized for its ease of broadcasting short messages and finding new interesting people with whom to connect. People who visit the Twitter website or download the mobile app are able to view any of the public content. Unless specific privacy settings are selected by the user, anyone who accesses the website or app may be able to view users' messages. Registered users are not only able to view Tweets, they are able to "like" them and forward them as well. Should users decide that they want a more private and secure account, they are able to select a "protected" option that allows only their approved followers to view their Tweets (About Public and Protected Tweets, 2018).

Originally, users were limited to posting Tweets that had a maximum of 140 characters. However, as of 2017, Twitter increased the character limit to 280 for all but three languages.[1] According to Twitter's general guidelines, users may only send out 2,400 tweets per day (About Twitter Limits, 2018). A retweet, which Twitter defines as, "a re-posting of a Tweet" (Retweet FAQs, 2018), is also counted in the daily limit of Tweets. Although Twitter did not officially abbreviate Retweets to "RT", users have popularized the use of RT to signify that they are re-posting another's Tweet. Any public Tweet may be retweeted and there is no limit to how many times it can be retweeted. Although there is no limit on the number of times that a Tweet can be

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[1] Users who type in Korean, Japanese, or Chinese are still limited to the 140 character limit.

Retweeted, Twitter will only show the most recent 100 users who have Retweeted the Tweet (Retweet FAQs, 2018).

A trend that was created through Twitter was the use of the hashtag (#) before a word or phrase with no spaces separating the different words in a phrase. According to Twitter, the hashtag is used to signify key words and allows others to easily find Tweets that they are interested in viewing (How to use Hashtags, 2018). Users are able to use the search feature from the Twitter homepage to view all public posts that contain a specific hashtag. Should an account be set to public, even non-registered users can view the Tweet if it matches the hashtag they are interested in. Users that have their content set to private will only be searched by people they have allowed to follow them. Currently, there are no limitations to how many hashtags an individual may use in the Tweet, as long as the total character count does not exceed the limitations for the user's language.

Another function that is key to Twitter use is the ability to subscribe to, or "follow", other Twitter users. Followers are able to send private messages to users they follow (Following FAQs, 2018). Once logging into Twitter, users are taken to their Home Timeline, where they are able to see Tweets of accounts they are following and a list of their own followers. If the user's account is set to private, the user must individually approve or deny follow requests. However, if the account is set to public then anyone may follow the user at any time without their approval. Following is not a mutual activity, both users do not have to agree to follow each other. According to Twitter, users may send up to 1,000 direct messages and may follow up to 1,000 accounts per day (About Twitter Limits, 2018).

Twitter clearly states that, "you may not make specific threats of violence or wish for the serious harm, death, or disease of an individual or group of people" (Violent Threats, 2018). Examples of what they define as glorifying violence include, but are not limited to: terrorist attacks; rapes and sexual assaults; and mass murders. Additionally, they state that any Tweet that violates that policy will be met with zero-tolerance and will result with the account possibly being permanently suspended (Violent Threats, 2018). Should the user Tweet something that glorifies violence, Twitter will take note of how many times the account has violated Twitter's policy and at the least will place the user's account on a temporarily hold to where the offending user cannot tweet, but may still view the followers and content associated with the account.

2.2 ISIS

From the early 2000's, ISIS has gone through numerous changes in leadership, partnerships, and even changes in its name, during its global quest for supremacy (Zelin, 2014). The founder of ISIS, Abu Musab al-Zarqawi and Osama bin Ladin, the founder of al-Qaeda, began an Islamic civil war in 2000 that is still going on today (Zelin, 2014). Originally, Bin Laden provided al-Zarqawi the financial backing to form ISIS, however, al-Zarqawi refused to pledge his allegiance to Bin Laden and while they did share some of the same goals, he vowed to keep his group separate (Byman, 2015). Later, al-Zarqawi pledged his allegiance to Bin Laden and changed the group's name to "Al Qaeda in Iraq" (Byman, 2015). While al-Qaeda's focus maintained on terror attacks on the West, referred to as the "far enemy", al-Zarqawi's focus has been to create a Sunni Islamic super state, so that they can create a global caliphate, while focusing on attacking the Shiites, also referred to as the "near enemy" (Zelin, 2014). Following the United States intervention in Iraq in 2014, al-Zarqawi's group began calling itself the Islamic State of Iraq and Syria, and stopped distinguishing between the "near enemy" and the

"far enemy" after it called for retaliation against countries such as the United States and France who sent military aid to support the fight against it and its desire to maintain an Islamic State (Gerges, 2017). While ISIS has continued to fight on the battlefields, it has also taken its fight to social media.

Demographically speaking, ISIS is made up predominantly of poor combatants with rural, agricultural backgrounds whose leadership derive from lower middle to middle class and are uneducated (Gerges, 2017). Comparatively, during the 1970's to the 1990's, former jihadist leaders came from the educated, social elite and their soldiers were university graduates (Gerges, 2017). Religiously, ISIS members are Sunni Islamists who follow the Wahhabi movement of Islam that calls for a restoration of a pure monotheistic worship and are known to be ultraconservative and fundamental. However, they prefer the term Salafi over the use of Wahhabi (Hamid and Dar 2016). Salafi-jihadists emphasize past military exploits of early generation Muslims, or the Salaf, to provide an interpretation of Islam for the use of violence while fighting their holy war (Hamid and Dar 2016). Through that interpretation, ISIS provides tortuous and extremely violent deaths for not only non-believers but also Muslims who in its eyes have departed from the faith (Sorenson, 2014).

Researchers have claimed that ISIS is using social media platforms, especially Twitter, in new and innovative ways compared to other terrorist organizations (Bodine-Baron et al., 2016). ISIS has used Twitter to spread its message, inspire followers, and even recruit new fighters. According to Bodine-Baron et al., as of the end of 2014, ISIS supporters had at least 46,000 individual accounts worldwide (Bodine-Baron et al., 2016). Of those accounts the researchers found that ISIS supporters relied heavily on "hyper active" users who send out bursts of high volume of Tweets that eventually caused their messages and hashtags to appear on the top of the

trending charts (Berger and Morgan, 2015). Research from Alexander (2017) claims that ISIS supporters are circumventing Twitter's antiviolence policies by creating at least 1,000 new accounts daily (Alexander, 2017). However, according to the tenth *#Transparency Report,* Twitter claims that between July 1, and December 31, 2016, an estimated 2,060 accounts were suspended per day that were promoting terrorism (TOS Reports, 2017).

Research conducted by Bodine-Baron et al. (2016) found that the ISIS social media campaign consisted of four metacommunities: the Shia group, Syrian Mujahideen supporters, ISIS supporters, and the Sunni community. It was found that the Shia group used links to Saudi Arabia and historical Islamic terms to condemn ISIS while showing enthusiasm towards Christians and the international coalition (Bodine-Baron et al., 2016). It was also found that the Shia Tweets target frustrations with the division between themselves and the Sunni (Bodine-Baron et al., 2016). The Syrian Mujahideen supporters are made up of individuals who are in support of the anti-Assad Syrian Mujahideen movement and appear to have mixed attitudes towards ISIS (Bodine-Baron et al., 2016). The ISIS supporters generate threats towards Islam with themes surrounding religion and belonging while insulting and using derogatory terms towards multiple groups (Bodine-Baron et al., 2016). Finally, the Sunni community was found to multiple subcommunities that focused on different state matters (Bodine-Baron et al., 2016). (See Appendix B for more of Bodine-Baron et al.'s findings.) Understanding each metacommunity is important for a complete analysis of language and themes that are being used within the tweets.

2.3 Sociological Frameworks

Groups are often formed when individuals chose to link themselves to other individuals' beliefs and ideas. Through communication, or social exchanges, individuals form entire networks that with the help of the internet can exist globally. Symbolic interactionism provides an understanding of interaction, meaning, and human agency, while examining human social behavior. Within the social exchanges, it is important to understand the language and symbolism that group members are using. Each group forms specific language and symbols to signify their shared beliefs and values to other possible members. While examining the contents of the ISIS supporter's tweets, it will be valuable to use the symbolic interactionist perspective to identify key terms and themes that are being used. This section will provide an explanation of the social media platform Twitter, an exposition of ISIS, and provide a basis of understanding for aspects of symbolic interactionism that are relevant to this research.

Symbolic interactionalism is based on pragmatism which examines the nature of knowledge and how one develops meanings, beliefs, concepts, and language (James, 1955). With that, pragmatists developed assumptions about interaction based on four key ideas: "the nature of reality; the nature of the human knower; the relationship between facts, values, truth and knowledge; and the role of science" (Sandstorm et al., 2010). To understand the nature of reality, it is said that individuals gain knowledge through ongoing exchanges between both physical and social environments (Shalin, 1999).

According to symbolic interactionism, people are in a continuous state of socialization where they develop meaning through interaction with others. According to Herbert Blumer (1986), the basis of symbolic interaction is found on three premises. He explains that the first premise is that people act towards things based on the meaning that they have given to them

(Blumer, 1986). This can be seen while examining how supporters of ISIS refer to each other versus how the people that oppose ISIS refer to them. It should be noted that when referring to the language which people use, government agencies, military forces and other official organizations are exempt from this analysis. Official agencies tend to use the names which the group prefers to use. This analysis is meant to examine how individuals who are not a part of official agencies refer to others. To a supporter of ISIS, the term the Islamic State of Iraq and Syria, or ISIS, brings about a sense of pride and nationality, while to those that oppose ISIS it brings about a sense of disgust and terror. Another example can be seen in the use of the word coalition by the Shia group as opposed to ISIS supporters. The Shia group views coalition in a positive manor, while ISIS supporters view it as a belittling term associated with one of their oppositions, Christians. Even though several people are using the same word, it may have different meanings assigned to it based on the group that the individual identifies with.

The second premise is that the meaning is derived from a form of socialization that the individuals experience through social interaction with others (Blumer, 1986). Through socialization, individuals and groups are able to give distinct meaning to an item, activity, or even a word or expression. The meaning is not something that people are born knowing. Supporters of ISIS learn that the term Islamic State is good and signifies membership to their group by interactions with other pro ISIS supporters. By creating a series of social exchanges, group members are taught the ideologies and fundamentals being a member or supporter of ISIS. Building on the second premise that meaning is derived from interactions, the third and final premise of symbolic interaction is that meaning is modified by a process of interpretation during social encounters (Blumer, 1986). In western culture, the term "cool" once started as a term to

describe the temperature; however, over time it began to mean that something was impressive. These theories explain that meanings are not static and are subject to modification.

Through symbolic interactionism, language is seen as a communication process that teaches others how to define and react towards symbols, objects and events (Sandstrom et al., 2010). Mead (1934) claimed that significant symbols are those that produce the same type of response between individuals. While the response does not need to be universal or identical to everyone that comes in contact with it, members of the same group will be able to stimulate similar responses to symbols or words of which they share the meaning. For example, it was found by several researchers that the way that the Twitter users refer to ISIS can signify if they are in support of them or if they oppose them. Individuals who are supportive of ISIS refer to the group as the Islamic State, while individuals who oppose them refer to them as Daesh. To a person who is a supporter of ISIS seeing the term Islamic State brings a sense of companionship in knowing that the person who used the term is part of the group while a person who opposes ISIS would see it as a derogatory term and understand that people do not belong to the same group.

When deciding how to frame a post, Twitter users take a multitude of items into account. Multiple marketing firms and profession social media users have made claims that there are certain types of posts that elicit a bigger following. Learning which types of posts are popular, which hashtags will draw a bigger audience, or which messages will be retweeted is all part of the social exchange process (Zavattaro, 2010). It is possible that there are reoccurring themes in the messages, because those are the ones that bring in a bigger following or get retweeted more often. The same can be said with the use of top hashtags and links. It is somewhat of a social learning process to figure out how to get the most reward for the Tweets that users are posting.

Meaning that behavior is learned through interaction with other people to develop an understanding of what is popular and what is not.

The research that led to studying ISIS supporter's online presence was founded on work that examined violent groups and how they focus on in-group affiliation. (Smith et al., 2008). Smith et al. (2008) found that the users would describe themselves by using religion, aggression rhetoric and morality more often than non-violent groups. Current research shows that on average, ISIS supporters have about 1,004 followers and tweet an average of 2,219 times per account (Berger and Morgan, 2015). Research by Bodine-Baron et al. (2016) found that ISIS supporters tweeted an average of 60 times per day while non-supporters posted an average of 40 times per day (Bodine-Baron et al., 2016). Berger and Morgan's (2015) research showed that the most popular hashtags used were variations of "Islamic State". Following the ISIS-related hashtags, the next most popular hashtags were: related to user suspension, references about Syria, referenced urgent, references about Daesh, and finally references about Iraq (Berger and Morgan, 2015). Klausen (2015) found that the most tweeted theme was reporting from battle, followed closely by religious instruction. The lesser popular themes he found were interpersonal communication, basic tourism, and finally, threats against the west (Klausen, 2015). However, in a study conducted by two Cornell students studying propaganda patterns, it was found that the two most popular themes of messages were of violence, specifically using the phrase "to kill", or a theological theme mentioning "caliph" (Badawy and Ferrara, 2017).

CHAPTER THREE DATA AND METHODS

The purpose of this research was to provide a content analysis of 16,841 Tweets

following the 2015 terrorist attacks in Paris, France. Specifically, this research looked for

commonalities and trends in key words, phrases, hashtags, and hyperlinks that are found within

the Tweets. The data being used was compiled by Fifth Tribe, a private research firm who

specializes in Social Media Strategy (Fifth Tribe 2018). Fifth Tribe's clients include private

corporations as well as federal entities such as The U.S. Air Force, The Department of Defense,

and the Peace Corps (Fifth Tribe 2018). The data was collected following a three-month

observation period where the following criteria were created to define an ISIS supporter:

keywords in the username, description, or contents of the tweets that used ISIS affiliated

language such as "Dawla[2]", "Baqiyyah[3]", "Amaq[4]", and "Wilayat[5]" (Fifth Tribe 2018). Other

factors included the use of ISIS-related imagery such as including the official flag of ISIS in the

user picture, or leaders, as well as who the user was not only following, but being followed by as

well (Fifth Tribe 2018). Once the dataset was compiled, it was uploaded to Kaggle, an online

public platform for users to conduct data science projects (Kaggle 2018).

The dataset contained the following variables: Username, Name, Location, Description,

Number of Followers, Number of Statuses, Date and Timestamp, and the contents of the Tweet.

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[2] Arabic for "the State"
[3] Part of the moto of ISIS and Arabic for "ever expanding"
[4] The official ISIS media agency
[5] The Arabic term ISIS uses to divide areas into provinces

Once the data had been analyzed, findings were interpreted through a sociological lens. Understanding the key words and themes surrounding a group gave an insight to others who are trying to understand their group communication. While using Twitter, knowing key words and hashtags allows users to quickly and efficiently search for other users or posts relevant to one's interests.

The first step of the data analysis was to assign a numerical identifier to the different users so that identifying factors such as Username, Name, and Location could be removed from the dataset. Next, the contents of the Tweet and the Description were analyzed using a word or character frequency count through the use of a computer software program. The contents of the Tweets were also analyzed to determine if there were different themes as defined by Klausen (2015): religious instruction, reporting from battle, interpersonal communication, tourism, threats against the west, link or hashtag, and finally, language other than English.

This research provided a content analysis of the variables found in the dataset and then used symbolic interactionism to understand the patterns and themes emerge from the analysis. According to Neuendorf (2017), a content analysis is an objective, quantitative, and systematic analysis of the characteristics of a message (Neuendorf, 2017). Content analysis uses the scientific method to examine the communication terminologies and symbols being used between individuals and groups to evaluate the relationship between variables by using statistical analysis. During a content analysis, the variables are listed prior to the final measurement of the data. However, the researcher is given creative freedom to use induction and deduction between analyses of the data. In the case of this study, the variables were selected based on extensive research on studies that involve ISIS supporters' use of Twitter.

3.1 Variables

Description

The description is also known as a short biography it is found beneath the username and name on the users Twitter page. The description is limited to 160 characters which can include a hyperlink. The description was analyzed for common themes, key words, hashtags used, and links posted.

Number of followers

Subscribing to another user's account is referred to as being a follower. The number of followers that an account has is limitless. It is possible that the higher number the followers the user has, the more statuses the user will post.

Number of statuses

The number of statuses that an account has is the number of times that user has Tweeted.

Date and timestamp

The date and timestamp refer to when the Tweet was published. All Tweets were checked to make sure that they were posted after the date of the Paris Attack, November 13, 2015.

Theme of the message

The theme of the message categorized the contents of the Tweet to either: religious instruction, reporting from battle, interpersonal communication, tourism, threats against the west, link or hashtag, and language other than English.

Keywords

After the contents of the Tweet, and the Description were analyzed, common reoccurring words were noted and labeled as keywords. Those keywords were then checked for significance against other variables and analyzed during a bivariate analysis.

Top hashtags

The hashtags found in the content of the Tweets were analyzed. Because it was unknown exactly how many hashtags there were before analyzing the number, the number of top hashtags were selected after reviewing the data. It was possible that certain themes will use more hashtags than other; or that possible events that occurred near the date of the Tweet generated a greater use of hashtags.

Top links

The links are referred to as any hyperlink that directs users to other websites. The links that were found in the content of the Tweets, as well as the description, and name, were originally planned to be analyzed to list the top 5 links posted. Top links were also to be used to see if there was a connection when checked against variables such as Theme of message, Hashtags used and key words.

3.2 Plan of Analysis

Upon the content analysis, the findings of the independent variables were used for a bivariate analysis to account for any trends or connections. Number of Followers were analyzed against Number of Statuses to see if there was any connection between the number of statuses a user makes and how many Followers the user has. It is possible that the higher the number of

statuses the user has, the more statuses the user will post. The Theme of the message was also used for a bivariate analysis to check for any connection when paired with the other independent variables. Keywords, Hashtags, and Top links were used for a bivariate analysis with the Theme of the message to see if there were themes that use more than others. The top hashtags were also analyzed against other variables such as Theme of the Message to see if there were themes that use hashtags more than others, as well as checking if there were any connections between the variables.

3.3 Significance of the Study

Currently, there has been limited research analyzing the ways that ISIS has used Twitter and none of the available publications have used a sociological perspective to understand the data. A sociological framework examines the meaning of things to people as evidenced in symbolic interactionism such as pragmatism and social exchange. By combining sociological perspectives and an analysis of language and themes found in the tweets by pro ISIS supporters, policy makers, government agencies and the intelligence community will be provided a new understanding of how Twitter is being used.

CHAPTER FOUR RESULTS

This section examines the findings of a content analysis that was completed on Tweets from ISIS supporters between November 15, 2015 and May 13, 2016. During that six-month period, a total of 16,841 Tweets were posted by 108 Users. Because there were Tweets in the dataset that were posted before the November 13, 2015 Attack in Paris, they were omitted from the analysis. Due to the high sample size, n = 16,842, the analysis was divided into four sections, the User, the Contents, the Themes, and finally, the Month, and finally.

To begin the analysis, the User's Descriptions were analyzed for the Keywords, Top Hashtags, Top Three Word Phrase, Top Four Word Phrase, and finally, the Top Five Word Phrases. Then, an analysis of the contents of the Tweets, were assigned a numeric value of one through seven that coordinated with a Theme as seen in Table 12. Tweets that referenced religion, or gave instructions according to Islamic Prophets and Sheiks, were coded as "1" for "Religious Instruction". Tweets that mentioned battles both current to the time frame which the Tweet was collected, and reflective on previous battles that had taken place were coded as "2" and labeled as "Reporting from Battle". Tweets that included personal conversations between Users were coded as "3" and labeled as "Interpersonal Communication" Tweets that included references to locations where ISIS was present that were not discussing battles, and day to day events that took place in the life of ISIS members, were coded as "4" and labeled as "Tourism". Tweets that only included Hashtags and/or Hyperlinks that did not provide insight into what the content was related to were coded as "6" and labeled as "Link or Hashtag". Links where the

predominate language used was other than English were coded as "7" and labeled as "Language Other Than English".

Next, the contents of the Tweet were put through a computer software program called myWordCount which put the words and phrases in order according to their frequency. The program myWordCount was created for the company, myWriterTools who specializes in lexical analysis software for students, editors and writers. From the initial results, stop words[6] were omitted from the word count used to find the Keywords and Top Hashtags, but were included in the phrase analysis. Then top 20 Keywords, top 20 Hashtags, and top 10 three-word, four-word, and five-word phrases were listed. Finally, the hyperlinks were counted, but were not able to be analyzed, as discussed in a subsequent section.

Following the analysis of the contents, the Tweets were separated by Theme and then analyzed to find the Keywords, Top Hashtags, Top Three Word Phrase, Top Four Word Phrase, and, the Top Five Word Phrase. Those results were compared against the results from the entire contents of each Tweet to determine if there were Keywords or Hashtags that could quickly alert the reader to the Theme of the Tweet, and if there were Themes which used Hashtags more than others.

The contents of the Tweet were then separated by the month in which they were written and again analyzed for the Keywords, Top Hashtags, Top Three Word Phrase, Top Four Word Phrase, and, the Top Five Word Phrase. During this portion of the analysis, the attacks which ISIS or its affiliates either claimed responsibility for or were believed to be responsible for were

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[6] Words such as "the", "a", "to".

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taken into account in order to distinguish if there was a connection between the number of attacks and the frequency of the Tweets.

4.1 The User

The first step in the analysis of the User's information was to determine how many unique Usernames there were during the initial coding of usernames. Although there were 104 total usernames, many of them appeared to belong to the same Twitter user. Multiple Usernames had the same root name but had either a series of numbers or initials after the root name with the same description posted. Also, several times the description would change slightly with the addition of a phrase about being suspended from Twitter and designating which how many accounts they had created due to suspension. Because of that, users who appeared to have multiple accounts were treated as one User. In total, there were 7 accounts that could possibly be owned by the same Twitter User, so it is believed that there were 97 unique Users instead of the 104 unique user names in the original dataset. During the analysis of the Keywords, Top Hashtags and Phrases, it was determined that because the frequency of the results were so low and there was a possibility that there were multiple users that had the same descriptions for their multiple accounts, the results were not significant enough to discuss. There were also 6 accounts that used a language other than English in their description, so they were not part of the analysis.

Throughout the User's Descriptions, there was a reoccurring theme of introducing themselves as news reporters who followed conflicts in the Middle East. Also, they claimed that they were not affiliated with any group and asked that Twitter not suspend them. It is possible that there were amateur journalists that got caught in the collection of the data due to posting Tweets relating to attacks that ISIS was affiliated with, but as later discussed in Theme 3, there were numerous times where ISIS supporters told others not to post personal information on

Twitter. However, that did not stop multiple users from posting personal information such as their religious belief, and their hatred for those against ISIS. Some users used the Description section to post links to their Telegram channels and information regarding their backup accounts should they be suspended from Twitter.

While analyzing the number of Followers that a User had versus the number of statuses they posted, it was discovered that the numbers didn't necessarily relate to each other. One possible explanation of that would be that if a User is suspended and creates a new account, the user is limited on both the number of followers they can obtain, 1,000 and the number of Tweets that they can post, 2,400 daily. Depending on how old the account is, the numbers can vary by 1,400 daily. One thing that was not taken into account during this analysis was to follow the timeframe of the User and then use that timeframe along with the analysis of how many followers and number of statuses they have.

4.2 Contents of the Tweet

Table 1 illustrates the totals from the contents of the Tweets. Throughout the contents of all 16,841 Tweets, it was found that there were 16,906 Hashtags used. Not every Tweet included a Hashtag; numerous users used multiple Hashtags in their Tweets. Throughout the contents of the Tweet, 5,766 hyperlinks were posted.

Table 1
Total Amounts from All Tweets

Content	Frequency
Tweets	16,841
Hashtags	16,906
Hyperlink	5,766

Keywords

During the analysis of the Keywords, different spellings and tenses of the root words were combined to get a deeper understanding of the Keywords that ISIS supporters were using in their Tweets. The top twenty Keywords were used to create Table 2 which was then broken down into the categories that are seen in Table 3. The total number of Keywords that were discovered equaled 13,666. It was no surprise that the most frequent word used was a root word of "Kill", which was used 1,577 times throughout the contents of the Tweets. Following the word "Kill", was the word "Fight", which was used 916 times and also not surprising. A one-word reference to ISIS was used 824 times and while Islam/Islamic was used 854 times, the word State was not seen in the top 20 Keywords, suggesting that the Islam/Islamic reference was religious and not in reference to ISIS.

Table 2

Keywords from the Tweets

Rank	Word	Frequency	Percentage
1.	Kill/Killed/Killing/Killings/Kills	1,577	11.54%
2.	Fight/Fighter/Fighters/Fighting/Fights	916	6.70%
3.	Army/Armies	908	6.64%
4.	Islam/Islamic	854	6.25%
5.	ISIS/ISI	824	6.03%
6.	Attack/Attacked/Attacker/Attackers/Attacking	798	5.84%
7.	US	750	5.49%
8.	Syria/Syrian/Syrians	694	5.08%
9.	Allah/Allahs	616	4.51%
10.	Near/Nearing/Nearly/Nears	615	4.50%
11.	Soldier/Soldiers	610	4.46%
12.	Force/Forces/Forced/Forcing	581	4.25%
13.	Against	555	4.06%
14.	Assad/Assad'll/Assads	544	3.98%
15.	Muslim/Muslims/Muslime	516	3.78%
16.	Report/Reporte/Reported/Reporters	514	3.76%
17.	North/Northern/Northe	481	3.52%
18.	City/Cities	468	3.42%
19.	West/Western	433	3.17%
20.	Bomb/Bombs/Bomber/Bombers/Bombing/Bombings	412	3.01%
TOTALS		**13,666**	**100%**

If the Keyword has more than one word listed, only the first word will be used to refer to the grouping.

To better illustrate the Keywords, they were separated into categories as seen in Table 3. The following Keywords were combined to make up the "Violent" category: "Kill", "Attack", "Fight", and "Bomb". Keywords that were violent in nature were the most frequently seen category, being used 27.10% of the time. To construct the "Military" category, the following Keywords were combined: Army, ISIS, Soldiers, Force, and ASSAD. Because only one reference to ISIS was seen in the top Keywords, ISIS/IS was labeled as a military group and treated as such in this category. The keywords that related to Military groups represented 25.37% of all Keywords, which was just under the "Violent" category. Keywords that discussed either specific locations or directions were combined to represent the "Location" category and was

used 25.18% of the time. The "Location" category was made up of the following Keywords: "US", "Syria", "North", "City", "West", and "Near". The "Religious" category had a significant decline in use from the top three categories and represented 14.53% of all Keywords. The following Keywords were combined to create the "Religious" category: Islam, Allah, and Muslim, which accounted. While the remaining two words could possibly relate to news and different military units, they were categorized as "Other" and represent only 7.82% of all Keywords.

Table 3
Keywords by Category

Category	Frequency	Percentage
Violent	3,703	27.10%
Military	3,467	25.37%
Location	3,441	25.18%
Religious	1,986	14.53%
Other	1,069	7.82%
TOTAL	**13,666**	**100%**

Top Hashtags

Table 4 illustrates the Top 20 Hashtags that were found throughout the contents of the Tweet. For the Top Hashtags, different spellings and tenses of the words were separated with the exception of "Syria/Syrias". The total of the Top 20 Hashtags equaled 7,966 which is just under half of the total number of tweets seen in the contents of the Tweet. It is not surprising that within the top five Hashtags, three of the five words were a reference to ISIS. To gain a clearer understanding of the Top Hashtags that ISIS supporters are using in their Tweets, Table 5 breaks the Top Hashtags into four categories.

Table 4
Top Hashtags from the Tweets

Rank	Word	Frequency	Percentage
1.	#ISIS	1,551	19.47%
2.	#Syria/#Syrias	1,345	16.88%
3.	#IS	640	8.03%
4.	#Iraq	592	7.43%
5.	#Islamicstate	420	5.27%
6.	#Aleppo	413	5.18%
7.	Amaqagency	328	4.12%
8.	#Breaking	318	3.99%
9.	#Russia	264	3.31%
10.	#Breakingnews	251	3.15%
11.	#Turkey	245	3.08%
12.	#Assad	238	2.99%
13.	#USA	214	2.69%
14.	#Palmyra	213	2.67%
15.	#YPG	198	2.49%
16.	#Mosul	155	1.95%
17.	#Fallujah	154	1.93%
18.	#Libya	146	1.83%
19.	#Caliphate_News	145	1.82%
20.	#Homs	136	1.71%
20.	#Ramadi	136	1.71%
TOTAL		**7,966**	**100%**

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The following Top Hashtags were combined to create the "Location" category: "#Syria/Syrias", "#Iraq", "#Aleppo", "#Russia", "#Turkey", "#USA", "#Palmyra", "#Mosul", "#Fallujah", "#Libya", "#Homs", and "#Ramadi". All of the Hashtags represented in the "Location" category were specific countries and cities. The "Location" category accounted for 50.37% of all Hashtags present in the content of the Tweets. To create the "References to ISIS" category, the following Top Hashtags were combined: #ISIS, #IS, and #IslamicState. The three different names which referred to ISIS represented 32.77% of all Hashtags used in the contents of the Tweet. Hashtags that referred to news agencies and new updates were combined to create the "News Related" category. As such, the following Hashtags were combined: "#AmaqAgency", "#Breaking", "#BreakingNews", and "#Caliphate_News", which made up

13.08% of all Hashtags found in the content of the Tweets. Finally, to create the "Other Military Forces" category, the following Top Hashtags were combined: "#ASSAD" and "#YPG", which accounted for 5.48% of all Hashtags found in the content of the Tweets.

Table 5
Top Hashtags by Category

Category	Frequency	Percentage
Location	4,013	50.37%
References to ISIS	2,611	32.77%
News Related	1,042	13.08%
Other Military Forces	436	5.48%
TOTAL	**7,966**	**100%**

Top Phrases

After the contents of the Tweet were analyzed for the Keywords and Top Hashtags, the Top Phrases were found. Top Phrases were broken down by Top Three Word Phrase, Top Four Word Phrase, and Top Five Word Phrase. In order to understand the phrasing that the ISIS supporters were using, none of the words or phrases were combined when analyzing the Top Phrases. Table 6 illustrates the Top Three Word Phrases found in the contents of the Tweets, which included a total of 651 phrases. It was not surprising to see that the number one ranking Three Word Phrase was "The Islamic State", which was used 156 times. There were several variations of phrases mentioning cities, so to gain a clearer understanding of the Top Three Word Phrases, they were categorized into five concise categories as seen in Table 7.

Table 6
Top Three Word Phrases Found in the Tweets

Rank	Phrase	Frequency	Percentage
1.	The Islamic State	156	23.96%
2.	The City Of	94	14.44%
3.	In The City	87	13.36%
4.	#YPG Terror Group	57	8.76%
5.	In North #Aleppo	49	7.53%
6.	Islamic State Fighters	48	7.37%
7.	In Northern #Aleppo	44	6.76%
8.	Claims To Have	42	6.45%
9.	Did You Know	38	5.84%
10.	May Allah Accept	36	5.53%
TOTAL		**651**	**100%**

The following Phrases were combined to create the "Location" category: The City of, In the City, In Northern Aleppo, and In North Aleppo, all of which accounted for 42.09% of the Top Three Word Phrases found in the contents of the Tweets. "References to ISIS" made up 31.33% of all the Top Three Word Phrases that were found in the content of the Tweets and included: The Islamic State and Islamic State Fighters. The "Communication" category represented 12.29% of the Top Three Word Phrases and included the phrases: "Claims to Have", and "Did you Know". The "Other Military Forces" category included the Phrase: YPG Terror Group, which represented 8.76% of all of the Top Three Word Phrases. Finally, the "Religious" category included the Phrase: May Allah Accept and accounted for 5.53% of all the of the Top Three Word Phrases found in the contents of the Tweets.

Table 7
Top Three Word Phrases Found in the Tweets by Category

Category	Frequency	Percentage
Location	274	42.09%
References to ISIS	204	31.33%
Communication	80	12.29%
Other Military Forces	57	8.76%
Religious	36	5.53%
TOTAL	**651**	**100%**

Following an analysis of the Three Word Phrases, the Top Four Word Phrases were analyzed and found 288 cases. The sample size decreased by half between the Top Three Word Phrases and the Top Four Word Phrases. Findings from Table 8 suggest that it is possible that there are similarities between the Three Word and Four Word Phrases, such as "The City of" and "In The City Of". This will be further examined during the analysis of Top Five Word Phrases.

Table 8
Top Four Word Phrases Found in The Tweets

Rank	Phrase	Frequency	Percentage
1.	In The City Of	67	23.26%
2.	Didyouknowvs: Did You Know	25	8.68%
3.	For The Sake Of	25	8.68%
4.	May Allah Accept Him	24	8.33%
5.	#ISIS Claims Responsibility Of	18	6.25%
6.	South Of Sheikh Zuwaid	18	6.25%
7.	The Sake Of Allah	17	5.90%
8.	In The Area Of	15	5.21%
9.	Of The Islamic State	14	4.86%
10.	#Sinai IED Explosion Targeted	13	4.51%
10.	By Islamic State Fighters	13	4.51%
10.	Killed By #ISIS In	13	4.51%
10.	Of The City Of	13	4.51%
10.	To The Islamic State	13	4.51%
TOTAL		**288**	**100%**

After Table 8 was analyzed, the contents were put into the following four categories: "Location", "References to ISIS", "Other", and "Religious". Next, the findings were put into Table 9 to gain further understanding into phrases. The "Location" category contained the following phrases: "In the City of", "South of Sheikh Zuwaid", "In the Area of", "Of the City of", and "#Sinai IED Explosion Targeted", which accounted for 43.74% of the Top Four Word Phrases found in the contents of the Tweets. This is likely due to many of the Tweets discussing battles, as seen later in the Themes section of the Findings. The "References to ISIS" category represented 24.64% of the Top Four Word Phrases found in the Tweets and contained the following phrases: "#ISIS Claims Responsibility of", "Of the Islamic State", "By Islamic State Fighters", "Killed by ISIS in Battle", and "To the Islamic State". The "Communication" category contained the following: "Didyouknow: Did You Know", and "For the Sake of", which made up 17.36% of the Top Four Word Phrases found in the contents of the Tweets. The "Religious" category accounted for 14.23% of the Top Four Word Phrases and contained the following: "May Allah Accept Him", and "The Sake of Allah".

Table 9
Top Four Word Phrases Found in the Tweets by Category

Category	Frequency	Percentage
Location	126	43.74%
References to ISIS	71	24.64%
Communication	50	17.36%
Religious	41	14.23%
TOTAL	**281**	**100%**

The final analysis focused on the Top Five Word Phrases found in the contents of the Tweets. Table 10 illustrates the total for the Top Five Word Phrases, but only includes the top 5 ranking Five Word Phrases due to small frequency of which they occurred, 247. Due to the total

number of phrases being only 247 and the frequencies of the phrases being small, only the top 5 Five Word Phrases were listed. The results from Table 10 were then categorized into the six categories listed in Table 11. There were multiple phrases that appeared in Table 10 that were seen throughout the Three Word and For Word phrases such as; "For the Sake", "For the Sake of", and now the top ranking in Table 10, "For the Sake of Allah". Because of this, future analysis will only include the top Phrases regardless of word count to eliminate duplicates.

Table 10

Top Five Word Phrases Found in the Tweets

Rank	Phrase	Frequency	Percentage
1.	For The Sake Of Allah	17	6.88%
2.	#Sinai IED Explosion Targeted Egyptian	10	4.05%
2.	Best Rts This Week Came	10	4.05%
2.	IED Explosion Targeted Egyptian Army	10	4.05%
2.	My Best Rts This Week	10	4.05%
2.	Rts This Week Came From:	10	4.05%
3.	A New Photo To Facebook	8	3.24%
3.	Destroyed 3 Turkish Army Tanks	8	3.24%
3.	I Posted A New Photo	8	3.24%
3.	Killed In Battles With #ISIS	8	3.24%
3.	New Photo To Facebook Https:	8	3.24%
3.	Posted A New Photo To	8	3.24%
3.	To Send Ground Troops To	8	3.24%
4.	Interview Mit Sheikh Al Muhaysin	7	2.83%
4.	UserName: #ISIS Claims Responsibility Of	7	2.83%
4.	Ready To Send Ground Troops	7	2.83%
4.	The Islamic State Does Not	7	2.83%
5.	Aspect Of The Work Of	6	2.43%
5.	By Iraqi Army Shelling On	6	2.43%
5.	Citizens To Leave #Lebanon Immediately	6	2.43%
5.	Heavy Clashes Between #ISIS And	6	2.43%
5.	In The City Of Sirte	6	2.43%
5.	In The Eastern Countryside Of	6	2.43%
5.	Is On The Verge Of	6	2.43%
5.	Its Citizens To Leave #Lebanon	6	2.43%
5.	Killed Yesterday By Airstrikes On	6	2.43%
5.	Martyrdom Operation With Explosive Belt	6	2.43%
5.	May Allah Be Pleased With	6	2.43%
5.	The Victory Revelations Pt 4	6	2.43%
5.	Today By Iraqi Army Shelling	6	2.43%
5.	Urges Its Citizens To Leave	6	2.43%
5.	Was Targeted By An IED	6	2.43%
5.	West Of The City Of	6	2.43%
TOTAL		**247**	**100%**

The most frequent seen category of phrases was the "Battle Related" category which accounted for 29.56% of the Top Five Word Phrases. The following phrases from Table 10 were combined to create the "Battle Related" category: "#Sinai IED Explosion Targeted Egyptian",

"IED Explosion Targeted Egyptian Army", "Destroyed 3 Turkish Army Tanks", "To Send Ground Troops To", "Ready to Send Ground Troops", "By Iraqi Army Shelling On", "Killed Yesterday By Airstrikes On", "Martyrdom Operation With Explosive Belt", "Today By Iraqi Army Shelling", and "Targeted By An IED". The "References to Social Media" category accounted for 25.11% of the Top Five Word Phrases and included the following phrases: "Best RTs This Week Came", "My Best RTs This Week", "A New Photo To Facebook", "I Posted A New Photo", "New Photo To Facebook Https", and "Posted A New Photo To". The "Location Based" category accounted for 14.58% of the Top Five Word Phrases and contained the following phrases: "Citizens To Leave #Lebanon Immediately", "In The City Of Sirte", "In The Eastern Countryside of", "Its Citizens To Leave #Lebanon", "Urges Its Citizens To Leave", and "West Of The City Of". The following Phrases were combined to create the "References to ISIS" category which accounted for 11.34% of the Top Five Word Phrases: "UserName[7]: #ISIS Claims Responsibility of", "The Islamic State Does Not", "Heavy Clashes Between #ISIS", and "Killed In Battles With #ISIS". The following Phrases were combined to create the "Religious" category which accounted or 12.4% of the Top Five Word Phrase: "For The Sake Of Allah", "Interview Mit Sheikh Al Muhaysin", and "May Allah Be Pleased With". Finally, the following phrases were combined to create the "Other" Category: "Aspects Of The Work Of", "The Victory Revelations Pt 4", and "Is On The Verge Of", which accounted for 7.29% of the Top Five Word Phrases.

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[7] The actual Username was deleted and replaced with "Username".

Table 11
Top Five Word Phrases Found in the Tweets by Category

Category	Frequency	Percentage
Battle Related	73	29.55%
References to Social Media	62	25.10%
Location Based	36	14.57%
References to ISIS	28	11.34%
Religious	30	12.15%
Other	18	7.29%
TOTAL	**247**	**100%**

4.3 Theme of the Message

The next step in the content analysis was to assign a Theme, "Religious Instruction", "Reporting to Battle", "Interpersonal Communication", "Tourism", "Link or Hashtag", "Language Other Than English", to each of the 16,781 Tweets. The results of the analysis can be found in Table 12. It was not surprising that the most frequently seen Theme among the Tweets was "Reporting from Battle" which accounted for 45.70% of all Tweets posted. With that Theme being the most prevalent, the results from the previous analysis suggesting that the top categories were related to violence, battles, and locations seem to say that this is a reliable trend throughout the content.

The next frequent Theme was "Interpersonal Communication" which accounted for 23.76% of all the Tweets. Tweets in that category referenced forms of social media, included personal conversations, and often made mention of Twitter users who had created new accounts after Twitter had suspended their previous accounts. Accounts that were predominately in a language other than English were labeled "Language other than English", and accounted for 10.56% of all Tweets. "Religious Instruction" included Tweets that mentioned Islam, Muslims, the Haddith, the Quran, or Allah, and often included lessons, or quotes on how to live one's life.

"Tourism" represented 7.26% of all Tweets and included mentions of examples of how ISIS was providing charitable actions to towns, links to pictures and videos of locations that ISIS had a presence in, and day to day actions regarding being either a member or supporter of ISIS. "Link or Hashtag" represented 4.40% of all Tweets and included Tweets that only contained a hyperlink or series of hashtag that didn't offer a description of what the hyperlink pertained to. This will also be discussed in the limitations portion of the discussion. The final Theme used was "Threats Against the West", which only accounted for 0.31% of all Tweets. Throughout that Theme, Tweets made negative reference to the United States Military, the Government, citizens, and the Presidential Candidates. Next, the Themes were individually analyzed to examine the Keywords, Hashtags, and Top Phrases that occurred throughout the Theme.

Table 12
Total Number of Tweets by Theme

Code	Theme	Frequency	Percentage
2.	Reporting From Battle	7,697	45.70%
3.	Interpersonal Communication	4,001	23.76%
7.	Language Other Than English	1,778	10.56%
1.	Religious Instruction	1,348	8.00%
4.	Tourism	1,223	7.26%
6.	Link Or Hashtag	741	4.40%
5.	Threats Against The West	53	0.31%
TOTAL		**16,841**	**100%**

Theme 1. Religious Instruction

The contents of the Tweets that were coded Theme One, "Religious Instruction" were analyzed to find the Keywords, Top Hashtags, and Top Phrases. The results of which are illustrated in Table 13 and found that there were a total of 1,348 Tweets that were labeled as "Religious Instruction" and accounted for 8.00% of all the Tweets in the dataset. Of the 1,348 Tweets found, 362 Hashtags were present which represented 2.14% of all Hashtags used, as well

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as 628 Hyperlinks which represented 6.45% of all Hyperlinks used. Tweets included references to Prophets and scholars, religious material, specific religious quotes, both written prayers and requests for prayers, as well advice on how to live a religious life.

Table 13
Total Amounts from Theme One

Content	Frequency	Percentage
Tweets	1,348	8.00%
Hashtags	362	2.14%
Hyperlink	628	6.45%

Theme One, Religious Instruction was analyzed for the Keywords to further an understanding of the message and the results are shown in Table 14. Words that had the same root word were combined, as seen in the top three Keywords; "Allah/Allahs", "Islam/Islamic", and "Muslim/Muslims". It was not surprising that references to Allah accounted for 40.51% of all Keywords. There was a drastic decline in usage between the top ranking and the second most used Keyword, but the remainder of the keywords were all very similar in the usage frequency. References to "Islam" accounted for 15.26% of all Keywords followed closely by words containing the root word of "Muslim" which occurred 14.68% out of all Keywords. The next Keywords were "May", occurring 14.68%, and "Said", occurring 14.38% out of all Keywords, which were both words that were seen previously in phrases that contained the word Allah.

Table 14
Theme One Keywords

Rank	Theme	Frequency	Percentage
1.	*Allah/Allahs	414	40.51%
2.	*Islam/Islamic	156	15.26%
3.	*Muslim/Muslims	155	15.17%
4.	May	150	14.68%
5.	Said	147	14.38%
TOTAL		**1,022**	**100%**

* Denotes that it is a Top Hashtag found throughout the contents of the Tweet

To clearly examine the Keywords from table 14, they were put into categories and can be seen in Table 15. The first category, "Religious" included the following Keywords and accounted for 70.94% of Keywords from Theme One: Allah, Islam, and Muslim. There was a significant decline between that frequency of use in that category and the "Communication" category. The "Communication" category included the Keywords: May and Said, which accounts for 29.06% of Keywords from Theme One.

Table 15
Theme One Keywords by Category

Category	Frequency	Percentage
Religious	725	70.94%
Communication	297	29.06%
TOTAL	**247**	**100%**

Next, the contents of Theme One were analyzed to find the Top 5 Hashtags and the results are illustrated in Table 16. Although three of the Top 5 Hashtags found in Table 16 were references to ISIS, they were not combined due to wanting to gain an understanding of which names were more popular than others. It was not surprising that the number one ranking Top

Hashtag was "#Quran", which accounted for 32.43% of all Top Hashtags. Table 17 was created

with the results of Table 16 to further understand the categories of which the Hashtags related to.

Table 16
Theme One Top Hashtags

Rank	Theme	Frequency	Percentage
1.	#Quran	24	32.43%
2.	*#ISIS	17	22.97%
3.	*#IS	14	18.92%
4.	*#IslamicState	10	13.51%
5.	*#Syria	9	12.16%
TOTAL		**74**	**100%**

** Denotes that it is a Top Hashtag found throughout the contents
of the Tweet*

"#ISIS", "#IS", and "#IslamicState" were combined to create the "References to ISIS"

category, which accounted for 55.41% of the Top Hashtags associated with Theme One. The

category, "Religious" contained "#Quran", and accounted for 32.43% of all Hashtags associated

with Theme One. It is interesting to note that there was only one Hashtag that fell under the

"Religious" category. The final category, "Location", contained "#Syria", and accounted for

12.16% of the Hashtags in Theme One.

Table 17
Theme One Hashtags by Category

Category	Frequency	Percentage
Reference to ISIS	41	55.41%
Religious	24	32.43%
Location	9	12.16%
TOTAL	**74**	**100%**

Table 18 represents the Top Phrases found in Theme One and contains phrases that are

three, four, and five words long. During the analysis, phrases that had the same root phrase and

the same frequency, but different word count were listed as the longest phrase possible[8]. If the root phrase was the same but the word count and frequency were different, the phrase with the highest frequency was listed. Earlier in Table 14, "May" was listed as a Keyword which ties into the number one and two ranking Top Phrases seen in Table 18. The majority of the phrases make references to Allah, which can be seen in a categorical break down in Table 19.

Table 18
Theme One Top Phrases

Rank	Theme	Frequency	Percentage
1.	*May Allah Accept	19	19.79%
2.	May Allah Protect	16	16.67%
2.	The One Who	16	16.67%
3.	*For The Sake Of Allah	12	12.50%
4.	Ahmad Musa Jibril	9	9.38%
4.	Be Pleased With	9	9.38%
4.	Make Dua For	9	9.38%
5.	*May Allah Be Pleased With	6	6.25%
TOTAL		**96**	**100%**

* Denotes that it is a Top Phrase found throughout the contents of the Tweet

The top-ranking category was "Reference to Allah" which accounted for 64.17% of all phrases and included the following phrases: "May Allah Accept", "May Allah Protect", "For The Sake of Allah", and "May Allah Be Pleased With". There was a significant decline between the top ranking category and the second ranking category, "Other", which included: the Islam Sheik's name "Ahmad Musa Jibril", and "The One Who", and accounted for 26.04% of the Top Phrases. The final category, "Instruction", accounted for 18.75% of the Top Phrases and included the following: "Be Pleased With", and "Make Dua for".

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[8] Example: All of the following phrases had a frequency of 12 but only "For The Sake of Allah" was listed in Table 18.

     For The Sake: 3 Word Phrase
     For Sake Of :4 Word Phrase
     For The Sake of Allah: 5 Word Phrase

Table 19
Theme One Top Phrases by Category

Category	Frequency	Percentage
Reference to Allah	53	55.21%
Other	25	26.04%
Instruction	18	18.75%
TOTAL	**96**	**100%**

Theme 2. Reporting from Battle

The next step of the analysis included Tweets that were coded as Theme Two, "Reporting from Battle", which were used for an analysis to extract the Keywords, Top Hashtags, and Top Phrases. The results showed that there were 7,698 Tweets that represented 45.71% of all Tweets in the dataset. Those Tweets included 13,005 Hashtags that made up 76.93% of all Hashtags used in all of the Tweets. Finally, Theme Two Tweets included 5,382 hyperlinks which accounted for 55.32% of all hyperlinks in the dataset.

Table 20
Total Amounts from Theme Two

Content	Frequency	Percentage
Tweets	7,698	45.71%
Hashtags	13,005	76.93%
Hyperlink	5,382	55.32%

Next, the contents of all Tweets labeled "Reporting from Battle" were analyzed to find the top five Keywords. It was no surprise that the top-ranking Keyword, "Kill", was also the top ranking Keyword from the Contents of the Data section. In fact, all of the Keywords seen in Table 20 were also Keywords from the original analysis of the contents. Subsequently, the results of Table 20 were put into categories and are shown in Table 21.

Table 21
Theme Two Keywords

Rank	Theme	Frequency	Percentage
1.	*Kill/Killed/Killing/Killings/Kills	1,421	34.25%
2.	*Army	842	20.29%
3.	*Attack/Attacked/Attacker/Attackers/Attacking/Attacks	739	17.81%
4.	*Near/Nearing/Nearly/Nears	579	13.96%
5.	*ISIS	568	13.69%
TOTAL		**4,149**	**100%**

** Denotes that it is a Keyword found throughout the contents
of the Tweet*

The Theme Two Keywords were combined to create three categories, "Violent", "Military", and "Location". The top-ranking category, "Violent", accounted for 52.06% of all Keywords in Theme Two, and included the following words: "Kills", and "Attacks". The next category, "Military", was made up of the Keywords: "ISIS", and "Army", which accounted for 33.98% of all Keywords in Theme Two. The last category represented 13.96% of all Keywords in Theme 2. and only included the Keyword "Near". It is interesting to note that the categories distinguish a trend of discussing facts about battles, which follows the definition of the Theme.

Table 22
Theme Two Keywords by Category

Category	Frequency	Percentage
Violent	2,160	52.06%
Military	1,410	33.98%
Location	579	13.96%
TOTAL	**4,149**	**100%**

After the Keywords were analyzed, the contents of Theme Two were analyzed to distinguish the highest ranking Top Hashtags as seen in Table 23. A total of 4,318 Hashtags were found in the analysis to construct the top 5 ranking Hashtags. Just as all of the Keywords from this theme were also Keywords that were found in the Contents of Tweet, all of the Top

Hashtags were also Top Hashtags as seen in Table 4. Compared the previous results, it was interesting to see that the top ranking Hashtag was "#Syria", and not a reference to ISIS. It is likely that "#Syria" was more prevalent because of the numerous attacks that were happening there. "#Syria" accounted for 40.41% of Top Hashtags, while "#ISIS", which was the only Top Hashtag that referred to the group, accounted for 31.19% of the Top Hashtags. However, "#AmaqAgency" is the official media outlet for ISIS and that Hashtag accounted for 6.74% of the Top Hashtags. The results from Table 23 were then categorized and used to create Table 24 to better illustrate the results.

Table 23
Theme Two Top Hashtags

Rank	Theme	Frequency	Percentage
1.	*#Syria	1,745	40.41%
2.	*#ISIS	1,347	31.19%
3.	*#Iraq	542	12.55%
4.	*#Aleppo	393	9.10%
5.	*AmaqAgency	291	6.74%
TOTAL		**4,318**	**100%**

* Denotes that it is a Top Hashtag found throughout the contents of the Tweet

Following the trend of the top categories seen in this Theme, the categories listed in Table 24 were "Violent", "ISIS Related", and "Location. The "Violent" category accounted for 52.06% of all Top Hashtags seen in Theme Two. Tweets and included the following Hashtags: "#Syria", "#Iraq", and "#Aleppo". The next category was "ISIS Related" and accounted for 33.98% of all Top Hashtags found in Theme Two which included the following: "#ISIS", and "AmaqAgency". The final category, "Location", saw a drop in frequency accounting for only 13.96% of the Top Hashtags seen in Theme Two. Again, the findings in this category are in line

with the findings with the definition of the Theme, as well as the findings from the Keywords from Theme Two.

Table 24
Theme Two Top Hashtags by Category

Category	Frequency	Percentage
Violent	2,160	52.06%
ISIS Related	1,410	33.98%
Location	579	13.96%
TOTAL	**4,149**	**100%**

Finally, the Tweets that were coded "2", were analyzed to distinguish the Top Phrases. Because there was a significant drop in frequency, between the Top 3 Word Phrases, Top 4 Word Phrases and the Top 5 Word Phrases, only the Top 3 Word Phrases were used to create the Top Phrases for Theme Two as seen in Table 25. The Top 4 Word Phrases and Top 5 Word Phrases are included in Appendix D. From the Tweets Coded "2", 279 Top Phrases were found and are illustrated in Table 25. The findings followed the trends relating to Theme Two. in that the Top Phrases made reference to ISIS, locations, and rival military groups, as seen in the categorical breakdown in Table 26.

Table 25
Theme Two Top Phrases

Rank	Theme	Frequency	Percentage
1.	*The Islamic State	87	31.18%
2.	*#YPG Terror Group	53	19.00%
3.	*In North #Aleppo	51	18.28%
4.	*Islamic State Fighters	46	16.49%
5.	*In Northern #Aleppo	42	15.05%
TOTAL		**279**	**100%**

* Denotes that it is a 3 Word Phrase found throughout the contents of the Tweet

To create the "Reference to ISIS" category, the following phrases were combined: "The Islamic State", and "Islamic State Fighters". It was no surprise that "Reference to ISIS" made up 47.67% of all Top Phrases related to Theme Two. The next ranked category was "Reference to Location" which was made up of the following phrases: "In North #Aleppo", and "In Northern #Aleppo", which accounted for 33.33% of all Top Phrases in Theme Two. It is interesting to note that both phrases referenced the northern part of Aleppo. Later in this chapter, incidents that ISIS either claimed responsibility of or were found to be responsible for during the timeframe of the Tweets will be discussed. The final category, "Other Military Forces" was made up of: "#YPG Terror Group", and accounted for 19.00% of all Keywords in Theme Two.

Table 26
Theme Two Top Phrases by Category

Category	Frequency	Percentage
Reference to ISIS	133	47.67%
Reference to Location	93	33.33%
Other Military Forces	53	19.00%
TOTAL	**279**	**100%**

Theme 3. Interpersonal Communication

Tweets that were coded "3", "Interpersonal Communication", were then analyzed to find the Keywords, Top Hashtags, and Top Phrases. The results from Table 27 show that there were 4,001 Tweets labeled as Theme Three that made up 23.84% of all Tweets in the dataset. There were 836 Hashtags that represented 4.94% of all Hashtags used and there were 1,017 Hyperlinks that accounted for 10.45% of all Hyperlinks in the contents of the Tweets. Examples of Tweets from Theme Three included requests for followers to private message them, references to other forms of social media such as Facebook, and Telegram, as well as announcements about Users who had either created new accounts due to suspension and requests for followers to retweet

them so that their followers from previous accounts could reconnect with them. One very interesting reoccurring message was for other ISIS supporters to never post personal information of Twitter and to keep their Twitter account separate from their personal social media pages. Following on that, there were numerous messages offering advice on how to maintain online privacy through various security measures and various computer software programs. Often the posts included requests for others to translate videos and other related media to languages such as English and also included language lessons translations of words from Arabic to English and vice versa.

Table 27
Total Amounts from Theme Three

Content	Frequency	Percentage
Tweets	4,001	23.76%
Hashtags	836	4.94%
Hyperlink	1,017	10.45%

First, the Tweets from Theme Three, "Interpersonal Communication" were analyzed to discover the top five Keywords as illustrated in Table 28. The total number of Keywords found were 822 and with this theme being focused on personal conversations, it was not surprising to see that two of the top five were variations of the word "Support" which represented 21.29% and "Follow" which accounted for 18.86% of all Keywords from Theme Three. The findings show that the Keywords "US" and "Muslim" were among the top five Keywords, which is very interesting as that was not expected. One explanation for "US" which accounted for 20.07% of the Keywords in Theme Three could be that there seemed to be a lot of Tweets that referenced the politics in the US, as well as some Tweets that discussed the news. Because neither of the afore mentioned made direct threats nor did they discuss topics related to battles, they were

coded as "Interpersonal Communication". To further understand the Keywords, Table 29

combined them into categories.

Table 28
Theme Three Keywords

Rank	Theme	Frequency	Percentage
1.	Support/Supported/Supporter/Supporters/Supporting/ Supports	175	21.29%
2.	People/Peoples/People'll	168	20.44%
3.	*US	165	20.07%
4.	*Muslim/Muslims	159	19.34%
5.	Follow/Followed/Follower/Followers/Following/Follows	155	18.86%
TOTAL		**822**	**100%**

** Denotes that it is a Keyword found throughout the contents
 of the Tweet*

Table 29 provides a categorical illustration of the Keywords found in Theme Three. As

noted previously, it is not surprising that the top category is "Requests" and accounts for 40.15%

of all Keywords in Theme Three and was made up of "Support", and "Follow". The next

category, "Individuals" accounted for 39.78% of all Keywords in Theme Three and was made up

of: "People" and "Muslim". The final category, "Location", represented 20.07% of all Keywords

in the theme and only included the keyword "US". Other than the "Location" category, which

was previously discussed, the findings were not surprising.

Table 29
Theme Three Keywords by Category

Category	Frequency	Percentage
Requests	330	40.15%
Individuals	327	39.78%
Location	165	20.07%
TOTAL	**822**	**100%**

The next step of the analysis examined the Top Hashtags found in Theme Three as seen in Table 30. The total number of Top Hashtags found were only 188 which is a clear decline from previous totals from themes. It is clear to see that the Top Hashtags are either references to ISIS or are locations, which is interesting because this theme pertained to personal conversations that did not reference attacks. To further illustrate the Top Hashtags, Table 31 was created by combining similar Hashtags.

Table 30
Theme Three Top Hashtags

Rank	Theme	Frequency	Percentage
1.	*#Syria	64	34.04%
2.	*#ISIS	57	30.32%
3.	*#USA	25	13.30%
4.	*#Iraq	22	11.70%
5.	*#IS	20	10.64%
TOTAL		**188**	**100%**

* Denotes that it is a Top Hashtag found throughout the contents of the Tweet

After combining the results of the Top Hashtags, Table 31 shows that the two categories are "Location" and "References to ISIS". "#Syria", "#USA", and "#Iraq" were combined to create the "Location" category and represent 59.04% of all Top Hashtags found within Theme Three. To create the "Reference to ISIS" category, the following were combined: "#ISIS", and "#IS", which represent 40.96% of the Top Hashtags found in Theme 3. Although both categories were surprising to see, one possible explanation could be that due to the amount of Tweets that referenced requests for their followers to share their Tweets so that others could find them, using a location themed Hashtag that has proven popular through not only other Themes but in the entire contents as well, provides other Twitter Users an easy and under the radar form of finding others with similar interests.

Table 31
Theme Three Top Hashtags by Category

Category	Frequency	Percentage
Location	111	59.04%
Reference to ISIS	77	40.96%
TOTAL	**188**	**100%**

Finally, the contents of Theme Three were analyzed to find the Top Phrases. Just as before, the word count was combined to account for only the top five ranking phrases. However, even the top five ranking phrases had more than 209 phrases total. The fifth ranked phrase had 192 phrases with the same frequency and because of that, only the top four ranked phrases were used to find the top-ranking phrases. The entire 209 phrases are listed in Appendix D. The top four phrases were used to create Table 32. Interestingly enough, the top phrase was "The Islamic State" and it accounted for 8.84% of the top phrases used in Theme 3. The succeeding phrases seemed to pertain to social media, so to better illustrate the results, Table 33 was created.

Table 32
Theme Three Top Phrases

Rank	Phrase	Frequency	Percentage
1.	*The Islamic State	16	8.84%
2.	#Thanksall Who Were Yours	10	5.52%
2.	*Did You Know	10	5.52%
2.	Follow And Support	10	5.52%
2.	How's Your Audience Growing	10	5.52%
2.	And More Last Week	10	5.52%
2.	*My Best Rts This Week	10	5.52%
2.	My Week On Twitter	10	5.52%
2.	New Followers From	10	5.52%
2.	*Rts This Week Came From	10	5.52%
3.	I Don't Know	9	4.97%
3.	I Posted A New	9	4.97%
4.	To Facebook Https	9	4.97%
4.	A New Photo	8	4.42%
4.	In The Middle	8	4.42%
4.	Make Takfir On	8	4.42%
4.	New Photo To	8	4.42%
4.	Photo To Facebook	8	4.42%
4.	This Account Is	8	4.42%
TOTAL		**181**	**100%**

* Denotes that it is a Top Hashtag found throughout the contents of the Tweet

As seen in Table 33, "References to Social Media" accounted for 55.25% of all Top Phrases for Theme Three. The following phrases were categorized as "References to Social Media": "Follow And Support", My Best Rts This Week" "My Week On Twitter", "New Followers From", "Rts This Week Came From", "I Posted A New". "To Facebook Https", "A New Photo", "Photo To Facebook", and finally, 'This Account Is". This finding coincides with the Keywords that suggest that the majority of the Theme were related to discussing issues pertaining social media accounts. Next, the category "Conversation" was constructed out of the following phrases: "And More Like", "In The Middle" "Make Takfir", which accounted for

14.36% of all Top Phrases in Theme Three. Finally, "References to ISIS" was created from just

the phrase, "The Islamic State", which accounted for 8.84% of all Top Phrases for Theme Three.

Table 33
Theme Three Top Phrases by Category

Category	Frequency	Percentage
Reference to Social Media	100	55.25%
Conversation	39	14.36%
Reference to ISIS	16	8.84%
TOTAL	**181**	**100%**

Theme 4. Tourism

Tweets that included discussions of the charitable work members of ISIS did, glimpses

into what a day in the life of a member looked like, or descriptions of locations that ISIS was

prevalent were coded as "4", the results can be seen in Table 34. The total number of tweets that

were assigned a code of "4" was 1,224 and accounted for only 7.27% of all Tweets in the

dataset. The total number of Hashtags found in Theme 4. Were 1,534, which represented 9.07%

of all Hashtags used. Finally, there were 1,237 Hyperlinks present which accounted for 12.71%

of the total number of Hyperlinks in the contents of all of the Tweets.

Table 34
Total Amounts from Theme Four

Content	Frequency	Percentage
Tweets	12,24	7.27%
Hashtags	1,534	9.07%
Hyperlink	1,237	12.71%

The first step in the analysis of the contents of the Tweets from Theme Four was to

determine the Keywords as seen in Table 35. It was no surprise that the top-ranking Keyword

was Islam/Islamic, which occurred in 27.88% of all 624 of the top five Keywords from Theme

Four. Because a lot of the Tweets contained information about the charitable work that ISIS

members participated in, it was not a surprise to see the words "New" and "City". Also, with the

frequencies of "Islam" and "State" being very close, 27.88% and 24.68% respectively, it is likely

that the words were combined to create the two-word phrase, Islamic State. To better illustrate

the findings in Table 35, the findings were categorized to create Table 36.

Table 35
Theme Four Keywords

Rank	Theme	Frequency	Percentage
1.	*Islam/Islamic	174	27.88%
2.	State/States	154	24.68%
3.	*ISIS	111	17.79%
4.	*City/Cities	105	16.83%
5.	New/Newly	80	12.82%
TOTAL		**624**	**100%**

* Denotes that it is a Keyword found throughout the contents
 of the Tweet

Table 36 breaks the Keywords from Theme Four into three categories, "References to

ISIS", "Location", and "Descriptive". References to ISIS made up 45.67% of all Keywords

found in that theme and was created by combining the following Keywords: "Islam", and "ISIS".

Next, "Location" consisted of the Keywords: "States", and "City", which accounted for 41.51%

of all Keywords in Theme Four. The final category, "Descriptive" included the Keyword "New",

and accounted for 12.82% of the Keywords in Theme Four. With numerous Tweets describing

the new buildings and new roadways that ISIS supporters were claiming that ISIS had

constructed, the Keywords listed were not surprising.

Table 36
Theme Four Keywords by Category

Category	Frequency	Percentage
References to ISIS	285	45.67%
Location	259	41.51%
Descriptive	80	12.82%
TOTAL	**624**	**100%**

Next, the Tweets that were coded "4" were analyzed to create a ranking of the Top

Hashtags as seen in Table 37. The results showed that more than 50% of the 400 Top Hashtags

were a form of the name ISIS, with only two out of five not making reference to the group. It is

interesting to note that findings were also all Top Hashtags as seen throughout the contents of the

Tweets. To provide a more accurate breakdown of the results of Table 37, Table 38 was created.

Table 37
Theme Four Top Hashtags

Rank	Theme	Frequency	Percentage
1.	*#IslamicState	101	25.25%
2.	*#ISIS	100	25.00%
3.	*#IS	77	19.25%
4.	*#Syria	68	17.00%
5.	*#Caliphate_News	54	13.50%
TOTAL		**400**	**100%**

** Denotes that it is a Top Hashtag found throughout the contents
of the Tweet*

The results from Table 37 combined into three categories, "References to ISIS",

"Location", and "News". "References to ISIS" accounted for 69.50% of all Top Hashtags found

in Theme Four and contained the following: "#IslamicState", "#ISIS", and "#ISIS". The next

most frequent category seen was "Location" and included the Hashtag "#Syria" which made up

17.00% of the Hashtags seen in the Theme. Finally, "#Caliphate_News" was categorized as

"News" and was seen in 13.50% of all top Hashtags seen in Theme Four.

Table 38
Theme Four Top Hashtags by Category

Category	Frequency	Percentage
Reference to ISIS	278	69.50%
Location	68	17.00%
News	54	13.50%
TOTAL	**400**	**100%**

After finding the Keywords and Top Hashtags, the Tweets that were coded "4" were analyzed to find the Top Phrases. Just as before, frequency and word count were taken into consideration when examining the different root phrases. Table 39 displays the results of the Top Phrases that totaled 159 Phrases found throughout Theme Four. Following the trends seen in the Keywords and Top Hashtags, it was no surprise that the top-ranking phrase was "The Islamic State" which accounted for 38.36% of all Top Phrases. Table 40 was created to provide a categorical illustration of the Top Phrase findings for Theme Four.

Table 39
Theme Four Top Phrases

Rank	Theme	Frequency	Percentage
1.	*The Islamic State	61	38.36%
2.	*In The City Of	51	32.08%
3.	The Work Of	27	16.98%
4.	*May Allah Accept	12	7.55%
5.	The City Of #Mosul	8	5.03%
TOTAL		**159**	**100%**

* Denotes that it is a Top Hashtag found throughout the contents of the Tweet

Table 40 clarifies the findings from Table 39 by distributing the Top Phrases among four categories: "References to ISIS", "Location", "Acknowledgement", and "Religious". The most common category found, "References to ISIS" which included the phrase "The Islamic State" was predictable based on previous findings and accounted for 38.36% of all Top Phrases found

in Theme Four. The next most common category was "Location" which included the phrases: "In the City Of", and "The City of #Mosul", accounted for 37.11% of all Top Phrases found in Theme Four. The Category "Acknowledgement" contained the phrase "The Work Of" and represented 16.98% of all Top Phrases in Theme Four. Finally, the phrase "May Allah Accept" was categorized as "Religious" and accounted for 7.55% of all Top Phrases found in Tweets from Theme Four.

Table 40
Theme Four Top Phrases by Category

Category	Frequency	Percentage
Reference to ISIS	61	38.36%
Location	51	37.11%
Acknowledgement	50	16.98%
Religious	12	7.55%
TOTAL	**159**	**100%**

Theme 5. Threats Against The West

The contents of the Tweets that made direct threats against the United States of America were coded as "5" and then analyzed to extract the Keywords, Top Hashtags, and the Top Phrases. The results seen in Table 41 show that the results from this code were very minimal. There were only 42 Tweets that made up Theme Five and they only accounted for 0.25% of all Tweets present in the dataset. There were 72 Hashtags that were used which only accounted for 0.43% all the Hashtags used in all of the Tweets. Finally, only 33 Hyperlinks were present which accounted for 0.34% of all Hyperlinks used throughout the contents of all of the Tweets. Tweets that fell into this theme spoke of wanting to attack the USA as a whole, as well as targeted political leaders, and members of the military.

Table 41
Total Amounts from Theme Five

Content	Frequency	Percentage
Tweets	42	0.25%
Hashtags	72	0.43%
Hyperlink	33	0.34%

The first step in the analysis of the Tweets from Theme Five was to perform a separate analysis to extract the Keywords. The results of the analysis are seen in Table 42 which illustrates 44 of the top five ranked Keywords found in Theme Five. The top ranked Keyword was "US" which was seen 11 times, or 25.00% out of all of the Keywords found in Theme Five. It was no surprise that the results also showed that "Kill" was a top-ranking Keyword, accounting for 11.36% of all top Keywords. The results from Table 42 were then categorized as seen in Table 43.

Table 42
Theme Five Keywords

Rank	Theme	Frequency	Percentage
1.	*US	11	25.00%
2.	West	8	18.18%
3.	USA	6	13.64%
3.	America/American/Americans	6	13.64%
4.	*Kill/Kills	5	11.36%
5.	Obama	4	9.09%
TOTAL		**44**	**100%**

* Denotes that it is a Keyword found throughout the contents
of the Tweet

The top five Keywords from Theme Five were split into three categories, "References to the USA", "Location", and "Violent" as illustrated in Table 43. "References to the USA" included the Keywords: "US", "USA", "America", and "Obama", which accounted for 67.50% of all top-ranking Keywords from Theme Five. Next, the category "Location" included the Keyword "West" and accounted for 20.00% of all top Keywords. The final category, "Violent"

included the Keyword "Kill" and accounted for 11.36% of all top-ranking Keywords found in

Theme Five. While it is probable that "West" was intended to relate the USA, it was listed as a

location instead due to a lack of being able to define the word without reading the contents of the

Tweet itself.

Table 43
Theme Five Keywords by Category

Category	Frequency	Percentage
References to the USA	27	67.50%
Location	40	20.00%
Violent	5	12.50%
TOTAL	**822**	**100%**

Next, the contents of Theme Five were analyzed to find the Top Hashtags; however,

because of the low total number, only the top three Hashtags were listed. During an examination

of the results it was found that a high number of Hashtags occurred less than two times. Any

frequency including and under the result of 2 was omitted from the top-ranking results. "#USA"

was listed as the Top Hashtag and accounted for 44.83% of all 29 Hashtags in the top four

Hashtags. The better illustrate the results of Table 44, Table 45 was created by combining the

Top Hashtags into categories.

Table 44
Theme Five Top Hashtags

Rank	Theme	Frequency	Percentage
1.	*#USA	13	44.83%
2.	*#Syria	6	20.69%
2.	*#ISIS	6	20.69%
3.	#US	4	13.79%
TOTAL		**29**	**100%**

** Denotes that it is a Top Hashtag found throughout the contents
 of the Tweet*

Table 45 combined the Top Hashtags into three categories: "Reference to the USA", "Reference to ISIS", and "Reference to Syria". "#USA" and "#US" were combined to create the "Reference to the USA" category that accounted for 58.62% of all Top Hashtags in Theme Five. The category "Reference to ISIS" which occurred 20.96% throughout the top Hashtags in Theme Five. Contained "#ISIS". Finally, Reference to Syria contained the Hashtag "#Syria" and accounted for 20.69% of all Top Hashtags in Tweets that were coded "5". While the Hashtags in the "Reference to the USA" and "Reference to ISIS" categories were not surprising to see, it was interesting to see that "References to Syria" was a Top Hashtag category. However; because there was such a small sample size, the results should not be defined as conclusive for all Tweets outside of this dataset.

Table 45
Theme Five Top Hashtags by Category

Category	Frequency	Percentage
Reference to the USA	17	58.62%
Reference to ISIS	6	20.96%
Reference to Syria	6	20.69%
TOTAL	**29**	**100%**

Theme 6. Link or Hashtag

The contents of the Tweets that were coded as Theme Six, "Link or Hashtag" contained Hyperlinks and/or Hashtags that did not adequately explain what the Hyperlink was. There were a total of 741 Tweets that made up Theme Six which accounted for 4.40% of all Tweets that were analyzed from the dataset. The total number of Hashtags used was 369 which accounted for 2.18% of all Hashtags used in the contents of the Tweet. Finally, there were 774 Hyperlinks that were posted in the Tweets from Theme Six which made up 7.96% of all Hyperlinks that were posted in all of the Tweets analyzed. There were some Tweets from Theme Six that contained

regular text that along with a Hashtag or Hyperlink; however, due to their non-descriptive nature, it was not possible to determine what the Hyperlink or Hashtag was in relation to. Many of the Tweets tagged another Twitter user and just had a short word description before posting a Hyperlink or a series of Hashtags.

Table 46
Total Amounts from Theme Six

Content	Frequency	Percentage
Tweets	741	4.40%
Hashtags	369	2.18%
Hyperlink	774	7.96%

Next, the contents of Theme Six were analyzed to determine the Keywords which are illustrated in Table 47. The top five Keywords totaled 75 and the Keywords that tied for the top rank were "Read" and "Here" which each accounted for 16% of all of the top Keywords found in Tweets from Theme Six. The words "Link" and "Video" also appeared in the top-five Keywords, as well as very short responsive words such as "Ha", "Lol" and "True". The results from Table 47 were then combined into three categories as illustrated in Table 48.

Table 47
Theme Six Keywords

Rank	Theme	Frequency	Percentage
1.	Read	12	16.00%
1.	Here/Heres	12	16.00%
2.	Ha	10	13.33%
3.	Lol	9	12.00%
3.	True	9	12.00%
4.	Link/Links	8	10.67%
4.	Watch	8	10.67%
5.	Video	7	9.33%
TOTAL		**75**	**100%**

Keywords that requested that other Users perform an action such as "Read", "Watch" or presented something such as "Here", were combined to create the "Request" category. The

"Request" category was the top-ranking category and accounted for 42.76% of all Keywords

from Theme Six. Keywords that were part of a shortened dialogue such as "Ha", "LOL", and

"True" were combined to create the category "Dialogue" that attributed to 37.33% of the

Keywords in Theme Six. Finally, the Keywords "Link" and "Video" were combined to create the

category "Reference to Other Media" which accounted for 20.00% of all Keywords found in

Tweets that were coded "6".

Table 48
Theme Six Keywords by Category

Category	Frequency	Percentage
Request	32	42.76%
Dialogue	28	37.33%
Reference to Other Media	15	20.00%
TOTAL	**822**	**100%**

Next, the Tweets from Theme Six were analyzed to discover the top five Hashtags as

illustrated in Table 49. There were a total of 154 Top Hashtags that were all noted as being Top

Hashtags as seen in the entire contents of the Tweet. The top-ranking Hashtag, "#Breaking"

accounted for 42.76% of all of the Top Hashtags from the Top Hashtags in Theme Six. Users

typically included "#Breaking" at the start of their Tweets, especially in the Tweets that were

pertaining to Theme 2, "Reporting From Battle". It was also noted that word "Breaking" was a

shortened variant of "Breaking News". The Top Hashtags also included several references to

ISIS as well as their official news agency as seen in "#AmaqAgency" which accounted for

16.88% of all of the Top Hashtags seen in Theme Six. To better illustrate the results of Table 49,

Table 50 was created by combining the Hashtags with similar meanings or references.

Table 49
Theme Six Top Hashtags

Rank	Theme	Frequency	Percentage
1.	*#Breaking	42	27.27%
2.	*#IslamicState	40	25.97%
3.	*#AmaqAgency	26	16.88%
4.	*#ISIS	17	11.04%
4.	*#Syria	17	11.04%
5.	*#IS	12	7.79%
TOTAL		**154**	**100%**

* Denotes that it is a Top Hashtag found throughout the contents of the Tweet

Table 50 clarifies the results of the Top Hashtags by combining them into four categories: "Reference to ISIS", "Announcement", "News Agency", and "Location". The category "Reference to ISIS" was created by combining the following: "#IslamicState", "#ISIS", and "IS", which accounted or 44.81% of all Top Hashtags seen in Theme Six. Following that category was the "Announcement" category which contained "#AmaqAgency" and was found in 27.27% of all Top Hashtags in Theme Six. Finally, the "Location" category was made up of "#Syria" and accounted for 11.04% of all Top Hashtags that were part of the Tweets from Theme Six. It is interesting to note that although the Hyperlinks were unable to be analyzed, the Top Hashtags suggest that at least some of them pertained to the attacks that were taking place around the time that the Tweets were originally posted.

Table 50
Theme Six Top Hashtags by Category

Category	Frequency	Percentage
Reference to ISIS	69	44.81%
Announcement	42	27.27%
News Agency	26	16.88%
Location	17	11.04%
TOTAL	**154**	**100%**

Finally, the Tweets from Theme Six were analyzed to examine the Top Phrases as illustrated in Table 51. Because of the small sample size and the low frequency, only the top two phrases were listed. Also, as seen in the previous results of Top Phrases, the word count and the frequency were combined to determine the Top Phrases. The total number of Top Phrases was 25 and there was a six-way tie for the number two ranking. The top-ranked Top Phrase was "Read Read Read" and accounted for 16.00% of all Top Phrases found in Theme Six. Only one phrase was more than three words and appeared to pertain to an interview. The results of Table 51 were used to create categories to represent the Top Phrases as seen in Table 52.

Table 51
Theme Six Top Phrases

Rank	Theme	Frequency	Percentage
1.	Read Read Read	4	16.00%
2.	Add A Comment	3	12.00%
2.	Ha Ha Https	3	12.00%
2.	Here Is The	3	12.00%
2.	Interview Mit Sheikh Al Muhaysini	3	12.00%
2.	Names Of The	3	12.00%
2.	Of The Sah	3	12.00%
TOTAL		**22**	**100%**

* Denotes that it is a Top Phrase found throughout the contents
of the Tweet

The results from Table 51 were combined to create the three categories "Description", "Request", and "Dialogue", as seen in Table 52. To create the "Description" category, the phrases "Here IS The", "Names Of The", and "Interview Mit Sheikh Al Muhaysini" were combined and accounted for 40.91% of all Top Phrases as seen in the Tweets from Theme Six. The "Request" category was made up of the phrases "Read Read Read" and "Add a Comment", which accounted for 31.82% of all of the Top Phrases in Theme Six. Finally, the phrases "Ha Ha

Https", and "Of The Sah" were combined to create "Dialogue" category, which accounted for

27.27% of all Top Phrases in Theme Six.

Table 52
Theme Six Top Phrases by Category

Category	Frequency	Percentage
Description	9	40.91%
Request	7	31.82%
Dialogue	6	27.27%
TOTAL	**22**	**100%**

Theme 7. Language Other Than English

Finally, Tweets that were written predominantly in any language other than English were

coded as "7", "Language Other Than English". This Theme was not analyzed for Keywords, Top

Hashtags, or Top Phrases. As seen in Table 53, there were a total of 1,778 Tweets from Theme

Seven that represent 10.56% of all Tweets that were analyzed in the dataset. Of the other

languages present, the more prevalent languages were French, Arabic, and Russian. Throughout

the Tweets from Theme Seven there were a total of 728 Hashtags that were posted which made

up 4.31% of all Hashtags used within the contents of the Tweets in the dataset. Finally, there

were a total of 710 Hyperlinks posted that made up 7.30% of all Hyperlinks posted.

Table 53
Total Amounts from Theme Seven

Content	Frequency	Percentage
Tweets	1,778	10.56%
Hashtags	728	4.31%
Hyperlink	710	7.30%

CHAPTER FIVE DISCUSSION

This purpose of this research was to provide a content analysis conducted on Tweets written by ISIS supporters following the 2015 Attacks in Paris, France. The findings of the analysis were broken down into three sections, the User, the Contents, and the Theme. The findings showed that the while there are many variables to be considered when researching ISIS supporter's online presence, there is an overall theme that includes continuously sharing information regarding attacks that ISIS has either claimed responsibility of or were believed to have been responsible for.

The results from the analysis of the user's Username and Description suggested that some ISIS supporters used their username's and descriptions to easily reconnect with their followers after returning from having previous accounts suspended. Users also used their description to make brief statements about not being affiliated with any groups. However, it was discovered in the contents of the Tweet that many of the supporters were reminding others to not post anything about their private lives online and constantly invited their followers to join their Telegram Channel. Furthermore, they provided each other with countless privacy tips and computer software recommendations on how to remain as anonymous online as possible. Although it is possible that amateur journalists were a part of the dataset as seen in their declarations in their descriptions, another explanation could be that users were attempting to avoid being labeled as an ISIS supporter and possible account flagging for violating Twitter's policies on the spreading of violence.

During the analysis of the contents of the Tweets, it was no surprise that the overarching Theme of the messages, Keywords, Top Hashtags, and Top Phrases predominately contained violent words, locations, or references to ISIS. These findings support the previous research conducted by Smith et al. (2015), Berger and Morgan (2015), and Badawy and Ferrara (2017), by repeating that Keywords, Hashtags, Phrases and Themes follow the pattern of using aggressive rhetoric. However, one notable difference was that using morality and Religious Instruction declined in the contents of the message. One explanation could be that many of the users were retweeting other supporters or news agencies posts, but it's also possible that Twitter Bots were being used to quickly disseminate messages because the similarity in phrasing of multiple messages who had the same root meaning. This finding supports the research by Klausen (2015) that the most popular theme was Reporting from Battle. However, whereas Klausen (2015) found that Religious Instruction was the second most common theme and that Interpersonal Communication was not as popular among the supporters, this research suggested otherwise. Religious Instruction only accounted for 8.00% of all Tweets whereas Interpersonal Communication accounted for 23.76%.

One interesting finding was seen in the vocabulary that ISIS supporters were using. If a member of another military force had died during battle, ISIS supporters said that the soldier was killed, whereas when a member of ISIS was killed in battle they often referred to them as brothers and mentioned that they were martyrs. This relates to symbolic interactionism by showing that the meanings of those words vary across organizations, and unless you are a part of the group, or familiar with the groups language, you will miss the meaning behind the words or that understanding those meanings can help determine group membership. By ISIS supporters using the word brother instead of soldier, it suggests a closeness and more intimate relationship

with the members of ISIS. However, the use of soldier when referencing an opposing military member suggests ISIS supporters do not want to humanize their adversaries and prefer to use language which clearly separates them. By using the term martyr instead of a variant of kill, the ISIS supporters romanticize the act of dying in the name of jihad. The ISIS supporters link their religious beliefs to the act of dying in battle by using the word martyr, whereas when referencing adversaries who died in battle, they used the word killed which has no religious symbolism. While the ISIS supporters included in the dataset used words such as soldiers and kill more often than brothers and martyr, the majority of the Tweets accounted for victories for ISIS which would explain why the keywords and hashtags included the language referencing their adversaries. However; it was not the findings which had the largest frequencies that were interesting, it was the findings with some of the smallest frequencies which provided the more interesting results.

One post which included only a link and a series of hashtag included the hashtags "#Breaking", "#IslamicState", and "TeenChoice", which is a popular awards show that was set to air around the date of the posting. It is possible that ISIS supporters are using trending hashtags to target younger users who fall within their recruitment demographic. By using popular hashtags, it is possible to spread their messages to unsuspecting users who were not necessarily looking for posts relating to ISIS. If ISIS is in fact using constantly changing trending hashtags, during an analysis to provide the top findings it is possible that those frequencies would be minimal and would not have appeared in the top findings from the study.

While it was no surprise that the theme with the highest frequency was "Reporting from Battle", the themes "Interpersonal Communication", and "Tourism" were the two that had the more interesting findings. As discussed previously, there was a pattern of privacy and security

discussions among the ISIS supporters in the Tweets that were coded as "3", "Interpersonal Communication". Some of those Tweets called out other Twitter users for being spies or individuals who were working to get the supporter's accounts suspended. There were multiple times that supporters would ask their followers to private message them, which would not be viewable to anyone besides the people in the message. Other times, they requested that individuals with language skills translate messages and videos that ISIS media channels posted. It would have been more beneficial to the stakeholders if the Tweets which discussed computer software and other security measures could have been analyzed in as close to real time as possible, allowing researchers to constantly monitor and adapt to the online battle against ISIS.

The theme "Tourism" provided perhaps the most noteworthy findings, as the ISIS supporters predominately used this theme to present ISIS in a positive manner. Throughout this theme supporters discussed the charitable work that ISIS members participated in, the positive attributes to life as a member, and describing the land which ISIS had control of with positive descriptive words. In contrast, ISIS supporters used negative tones when describing attacks that were led by their adversaries. Should an impressionable Twitter user find one of these postings through the use of one of the trending Hashtags, then the user may begin to view ISIS and the jihad through a different viewpoint than one more aligned with the medias portrayal of the group and their violent reputation.

CHAPTER SIX CONCLUSION

The scope of this study was to conduct a content analysis of 16,891 Tweets posted after the 2015 Attacks in Paris, France in an effort to provide stakeholders insight into the ways which ISIS supporters have been using Twitter. Using the sociological framework of symbolic interactionism, the data was analyzed to provide new insight into the ways which ISIS uses social media to broadcast its achievements, provide valuable instruction to other supporters, as well as combat its reputation of being extremely violent in order to recruit new members and gain sympathizers. Throughout the analysis, there were numerous limitations that were found, however; those limitations can in fact provide the groundwork for future research.

ISIS has been labeled the forerunner of social media campaigns carried out by terrorists (Bodine-Baron et al. 2016). There use of social media benefits not only ISIS supporters by allowing them to reach a large audience, but also researchers who are able to provide constant monitoring and analysis of their online presence. Because of their constant presence and the ability for other groups to mimic their methods, it is vital that researchers maintain up to date on their online tactics so that the stakeholders are able to make paramount decisions when combatting the war on terrorism.

Over a six-month period, a total of 16,481 Tweets were posted by 97 unique ISIS supporters. Although the initial findings matched the previous research that *Reporting From Battle* was the premise across the themes, keywords, top hashtags, and top phrases, it was the lesser frequencies that provided the more noteworthy findings among their contents. The themes

Interpersonal Communication, and *Tourism*, offered new insight into more creative ways that ISIS supporters were using Twitter to maintain personal security, recruit naive Twitter users, sympathizers, and to transform the violent reputation that ISIS has acquired.

One of the biggest limitations of this research revolved around the collection of the data and the possibility that users who were amateur journalists had been pulled during the collection. Even though the users may have claimed that they were not affiliated with any group and that their purposes were to report on the conflicts in the Middle East, they were still spreading messages that used positive language and sharing messages pertaining to the victories of ISIS aligning their actions with the definition of ISIS supporters. Another limitation surrounding the data was that it only included the text from the Tweets and did not include any image that they may have included in the Tweet. Many of the Tweets included hyperlinks which often opened to other Twitter accounts or websites which were no longer active, making it impossible to include in the analyzation. Another limitation was found while trying to determine if there was any connection between the number of followers that a user had and the number of statuses they had. While the data included the date and timestamp of the message, it did not include the age of the account which is needed to answer the question regarding the connection between posts and statuses. While users are able to post 2,400 Tweets per day, they are only able to follow 1,000 people a day, which can skew the results the age of the account is unknown (About Twitter Limits, 2018).

Future research should focus on the Tweets current to the time of research. In order to provide stakeholders the most comprehensive analysis, researchers should be a part of the data collection process and examine the possibilities of doing real time analysis. By using a real time analysis, it is more likely that the hyperlinks and images included in the Tweets would be active

and allow for more inclusive results. Also, by using a live dataset, researchers would be afforded the opportunity to follow the connections between usernames and conversations that leave Twitter for other social media websites and apps. To further an understanding of how ISIS supporters are not only framing their messages, but their identities as well, researchers should conduct a frame analysis and focus on the impression management techniques that are being used by ISIS supporters.

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APPENDIX A DEFINTIONS OF TERRORISM

Legal Definitions

U.S. PATRIOT ACT:

SEC. 802. DEFINITION OF DOMESTIC TERRORISM. DOMESTIC TERRORISM DEFINED.—Section 2331 of title 18, United States Code, is amended— (1) in paragraph (1)(B)(iii), by striking ''by assassination or kidnapping'' and inserting ''by mass destruction, assassination, or kidnapping''; (2) in paragraph (3), by striking ''and''; (3) in paragraph (4), by striking the period at the end and inserting ''; and''; and (4) by adding at the end the following: ''(5) the term 'domestic terrorism' means activities that— (A) 'involve acts dangerous to human life that are a violation of the criminal laws of the United States or of any State; (B) ''appear to be intended— (i) ''to intimidate or coerce a civilian population; (ii) ''to influence the policy of a government by intimidation or coercion; or (iii) ''to affect the conduct of a government by mass destruction, assassination, or kidnapping; and (A) ''occur primarily within the territorial jurisdiction of the United States.''. (a) CONFORMING AMENDMENT.—Section 3077(1) of title 18, United States Code, is amended to read as follows: (1) '''act of terrorism' means an act of domestic or international terrorism as defined in section 2331;'' (Uniting and Strengthening, 2001).

U.S. Code:

18 U.S.C. § 2331 defines "international terrorism" and "domestic terrorism" for purposes of Chapter 113B of the Code, entitled "Terrorism":

"International terrorism" means activities with the following three characteristics: Involve violent acts or acts dangerous to human life that violate federal or state law; Appear to be intended (i) to intimidate or coerce a civilian population; (ii) to influence the policy of a government by intimidation or coercion; or (iii) to affect the conduct of a government by mass destruction, assassination, or kidnapping; and Occur primarily outside the territorial jurisdiction of the U.S., or transcend national boundaries in terms of the means by which they are accomplished, the persons they appear intended to intimidate or coerce, or the locale in which their perpetrators operate or seek asylum.*

"Domestic terrorism" means activities with the following three characteristics: Involve acts dangerous to human life that violate federal or state law; Appear intended (i) to intimidate or coerce a civilian population; (ii) to influence the policy of a government by intimidation or coercion; or (iii) to affect the conduct of a government by mass destruction, assassination. or kidnapping; and Occur primarily within the territorial jurisdiction of the U.S.

18 U.S.C. § 2332b defines the term "federal crime of terrorism" as an offense that: Is calculated to influence or affect the conduct of government by intimidation or coercion, or to retaliate against government conduct; and Is a violation of one of several listed statutes, including § 930(c) (relating to killing or attempted killing during an attack on a

federal facility with a dangerous weapon); and § 1114 (relating to killing or attempted killing of officers and employees of the U.S.).

*FISA defines "international terrorism" in a nearly identical way, replacing "primarily" outside the U.S. with "totally" outside the U.S. 50 U.S.C. § 1801(c) (Definitions of Terrorism in the U.S. Code).

Organizational Definitions

Central Intelligence Agency (CIA):

The Intelligence Community is guided by the definition of terrorism contained in Title 22 of the US Code, Section 2656f(d): The term "terrorism" means premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents. The term "international terrorism" means terrorism involving the territory or the citizens of more than one country. The term "terrorist group" means any group that practices, or has significant subgroups that practice, international terrorism (How do you define terrorism?).

Department of Homeland Security (DHS):

Under Section 2 of the Homeland Security Act of 2002:

(15) The term ''terrorism'' means any activity that— (A) involves an act that— (i) is dangerous to human life or potentially destructive of critical infrastructure or key resources; and (ii) is a violation of the criminal laws of the United States or of any State or other subdivision of the United States; and (B) appears to be intended— (i) to

intimidate or coerce a civilian population; (ii) to influence the policy of a government by intimidation or coercion; or (iii) to affect the conduct of a government by mass destruction, assassination, or kidnapping (Homeland Security Act of 2002).

Federal Bureau of Investigation (FBI):

The unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives (Terrorism).

National Counterterrorism Center (NCTC):

Terrorism is "premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, as found in Title 22 (Report on Terrorism).

North Atlantic Treaty Organization (NATO):

The unlawful use or threatened use of force or violence against individuals or property in an attempt to coerce or intimidate governments or societies to achieve political, religious or ideological objectives (Terrorism, NATO Glossary of Terms and Definitions).

United Nations (UN):

Not established

U.S. Department of Defense (DoD):

The calculated use of unlawful violence or threat of unlawful violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious, or ideological (Terrorism, United States Army Combined Arms Center).

U.S. Department of State (DoS):

Section 2656f(d) of Title 22 of the United States Code defines certain key terms used in Section 2656f(a) as follows: the term "international terrorism" means terrorism involving citizens or the territory of more than one country; the term "terrorism" means premeditated, politically motivated violence perpetrated against non-combatant targets by subnational groups or clandestine agents; and the term "terrorist group" means any group practicing, or which has significant subgroups which practice, international terrorism (Country Reports on Terrorism, 2012).

Differing References to ISIS

Content	Users of *Islamic State*	Users of *Daesh*
ISIS members	monotheists [*muwahideen*, believers in the oneness of God] mujahideen soldiers of the caliphate lions of the Islamic State martyrdom-seeker [*istishaadi*, positive term for a suicide bomber]	the terrorist Daesh the Kharijites of Daesh, today's Kharijites, Kharijites [derogatory term for Sunni extremists] the militants of Daesh dogs of fire dogs of Baghdadi
ISIS phrases	in the shadow of the caliphate [phrase used in ISIS propaganda] O Supporters, supporters of the Islamic State, the brotherhood of supporters in all corners of the world may God accept him [said about martyrs] prophetic methodology, in accordance with the prophetic methodology [ISIS "guiding principle"] Baqiya [Remaining, first half of the ISIS motto]	crimes of Daesh to fight Daesh to confront Daesh strike Daesh
Hashtags about ISIS	#Remaining_and_expanding [*Baqiya wa Tatamudud*, the ISIS motto] #The_global_campaign_to_support_the_Islamic_State #The_media_front_to_support_the_Islamic_State	#Terrorist_Daesh_Organization #Daesh_does_not_attack_Iran #Daesh_is_a_Russian_and_Iranian_creation #Daesh_assaults_a_female_tourist #Daesh_and_Iran_are_against_Saudi_Arabia #arrest_of_a_Daesh_cell_in_Tamir [Saudi city] #Daesh_burns_the_Jordanian_pilot #Daesh_enslaves_the_Muslims_of_Deir_al-Zour

SOURCE: RAND analysis, Twitter data from July 2014 to May 2015.

Differing References to ISIS's Adversaries

Adversary	Users of *Islamic State*	Users of *Daesh*
Syria	*Rafidha, Rawafidh* [derogatory term for Shia, used by ISIS] *Nusayri*, the Nusayri regime [derogatory term for Alawi, used by ISIS to describe the Assad regime]	the Syrian army, the Syrian regime, the Syrian people, the rebels [the more secular way of referring to the Syrian opposition, instead of mujahideen]
Iraq	*Safavid*, the Safavid army [derogatory term for Iranian, used by ISIS to describe Iran and those Iran supports]	the Iraqi army, *al-Hashd al-Sha'bi* [PMF, the Popular Mobilization Forces]
Arab states	apostate, the apostates [used by ISIS to describe Sunnis who oppose ISIS], the tyrants [*tawaghit*, term used by ISIS to describe Arab rulers]	the Arab nations, Defense Minister, Foreign Minister, Air Defense
The West	Crusader, the Crusader coalition [Crusader being a derogatory term for Christian, used by ISIS to describe the West]	the international coalition, Security Council, airstrike

SOURCE: RAND analysis, Twitter data from July 2014 to May 2015.

APPENDIX C FINDINGS FROM THE ISIS TWITTER CENSUS

Top Hashtags

232728	51174	27583	24275	20485	18129
ISIS References	Suspension-Related	Syria References	Urgent	Daash References	Iraq
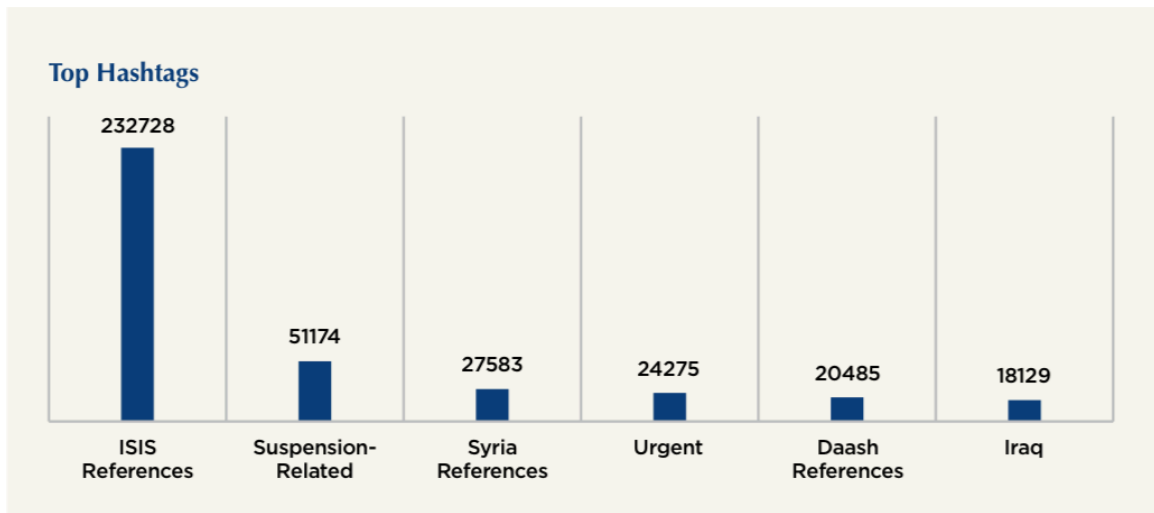
FIGURE 9: Number of tweets containing a hashtag, consolidated by theme from among the top 100 hashtags

APPENDIX D THEME TWO AND THREE TOP PHRASE TABLES

Table 54

Theme Two Top Four Word Phrases

Rank	Theme	Frequency	Percentage
1.	*#ISIS Claims Responsibility Of	18	8.87%
1.	*South Of Sheikh Zuwaid	18	8.87%
2.	*In The City Of	14	6.90%
3.	*#Sinai IED Explosion Targeted	13	6.40%
3.	*By Islamic State Fighters	13	6.40%
3.	*Killed By #ISIS In	13	6.40%
3.	Was Killed Today By	13	6.40%
4.	Claims To Have Killed	12	5.91%
4.	On The Outskirts Of	12	5.91%
5.	Clashes Between #ISIS And	11	5.42%
5.	IED Explosion Targeted Egyptian	11	5.42%
5.	In The Area Of	11	5.42%
5.	Killed In Clashes With	11	5.42%
5.	On The Road Between	11	5.42%
5.	To Send Ground Troops	11	5.42%
5.	To The Islamic State	11	5.42%
TOTAL		**203**	**100%**

* Denotes that it is a 4 Word Phrase found throughout the contents of the Tweet

Table 55
Theme Two Top Five Word Phrases

Rank	Theme	Frequency	Percentage
1	*#Sinai IED Explosion Targeted Egyptian	10	5.85%
1	*IED Explosion Targeted Egyptian Army	10	5.85%
2	*Destroyed 3 Turkish Army Tanks	8	4.68%
2	*Killed In Battles With #ISIS	8	4.68%
2	To Send Ground Troops To	8	4.68%
3	Ready To Send Ground Troops	7	4.09%
4	By Iraqi Army Shelling On	6	3.51%
4	Citizens To Leave #Lebanon Immediately	6	3.51%
4	Heavy Clashes Between #ISIS And	6	3.51%
4	In The Eastern Countryside Of	6	3.51%
4	Its Citizens To Leave #Lebanon	6	3.51%
4	Killed Yesterday By Airstrikes On	6	3.51%
4	Martyrdom Operation With Explosive Belt	6	3.51%
4	Today By Iraqi Army Shelling	6	3.51%
4	Urges Its Citizens To Leave	6	3.51%
4	Was Targeted By An IED	6	3.51%
5	#Amaqagency #Breaking Martyrdom Op Hits	5	2.92%
5	Are In The Hands Of	5	2.92%
5	At Lackland Air Force Base	5	2.92%
5	By An IED Explosion Near	5	2.92%
5	Helicopter Downed By #ISIS Defenses	5	2.92%
5	In The Hands Of The	5	2.92%
5	Is On The Verge Of	5	2.92%
5	Killed And Wounded Today By	5	2.92%
5	Killed Today By Airstrikes On	5	2.92%
5	Made His VBIED Attack Against	5	2.92%
5	Near Dumair Airbase East Damascus	5	2.92%
5	Reconnaissance Plane Shot Down By	5	2.92%
TOTAL:		**171**	**100%**

** Denotes that it is a 5 Word Phrase found throughout the contents
 of the Tweet*

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Table 56
Theme Three Top Phrases

Rank	Phrase	Frequency	Percentage
1.	The Islamic State	16	1.19%
2.	#Thanksall Who Were Yours	10	0.74%
2.	Did You Know	10	0.74%
2.	Follow And Support	10	0.74%
2.	How's Your Audience Growing	10	0.74%
2.	And More Last Week	10	0.74%
2.	My Best Rts This Week	10	0.74%
2.	My Week On Twitter	10	0.74%
2.	New Followers From	10	0.74%
2.	Rts This Week Came From	10	0.74%
3.	I Don't Know	9	0.67%
3.	I Posted A New	9	0.67%
4.	To Facebook Https	9	0.67%
4.	A New Photo	8	0.60%
4.	In The Middle	8	0.60%
4.	Make Takfir On	8	0.60%
4.	New Photo To	8	0.60%
4.	Photo To Facebook	8	0.60%
4.	This Account Is	8	0.60%
5.	#Carolina #USA Https:	6	0.45%
5.	$Upport Our Dear	6	0.45%
5.	A Bunch Of	6	0.45%
5.	A Reporter And	6	0.45%
5.	About The Ummah	6	0.45%
5.	Account Is Doing	6	0.45%
5.	Adhir Of The	6	0.45%
5.	Against The Islamic	6	0.45%
5.	Ahrar Al Sham	6	0.45%
5.	Alaykum. Back AGAIN	6	0.45%
5.	ALL LIVES MATTER	6	0.45%
5.	All The Time	6	0.45%
5.	Alqaeda And Ahrar	6	0.45%
5.	And Support My	6	0.45%
5.	Are In Maldives	6	0.45%
5.	Are More Important	6	0.45%
5.	Are Obsessed With	6	0.45%
5.	Are Prepared To	6	0.45%
5.	Are The Only	6	0.45%

5.	As Well As	6	0.45%
5.	At The End	6	0.45%
5.	Be Excluded From	6	0.45%
5.	Be On The	6	0.45%
5.	Be Surprised If	6	0.45%
5.	Because They Always	6	0.45%
5.	Because They Will	6	0.45%
5.	Because You Are	6	0.45%
5.	Brothers And Sisters	6	0.45%
5.	But I Think	6	0.45%
5.	But They Are	6	0.45%
5.	But This Is	6	0.45%
5.	Come Up With	6	0.45%
5.	Do You Forget	6	0.45%
5.	Don't Forget To	6	0.45%
5.	F0ll0w And Support	6	0.45%
5.	Follow Me On	6	0.45%
5.	Follow Us For	6	0.45%
5.	Followers Are In	6	0.45%
5.	For Those Who	6	0.45%
5.	For Your 5upp0rt	6	0.45%
5.	Forget About The	6	0.45%
5.	Get Your Map	6	0.45%
5.	Go To The	6	0.45%
5.	God Save The	6	0.45%
5.	Have No Idea	6	0.45%
5.	Have Stopped Posting	6	0.45%
5.	He Wants To	6	0.45%
5.	He Was Killed	6	0.45%
5.	He Was Not	6	0.45%
5.	How Do You	6	0.45%
5.	How To Use	6	0.45%
5.	I Am Not	6	0.45%
5.	I Don't Think	6	0.45%
5.	I Don't Want	6	0.45%
5.	I Just Saw	6	0.45%
5.	I Miss You	6	0.45%
5.	I Need To	6	0.45%
5.	I Told You	6	0.45%
5.	I Want To	6	0.45%
5.	If They Were	6	0.45%

5.	If You Are	6	0.45%
5.	In #Syria Https:	6	0.45%
5.	In Shirk Akbar	6	0.45%
5.	In South #Turkey	6	0.45%
5.	In The Past	6	0.45%
5.	In The Way	6	0.45%
5.	Is Not A	6	0.45%
5.	Is Not Working	6	0.45%
5.	Is One Of	6	0.45%
5.	Is Still Alive	6	0.45%
5.	Is That What	6	0.45%
5.	Is There Any	6	0.45%
5.	ISIS Supporters Are	6	0.45%
5.	It Will Not	6	0.45%
5.	Jaish Al Islam	6	0.45%
5.	Jazak Allah Khair	6	0.45%
5.	Jazakoum Allah Ghir	6	0.45%
5.	Just Saw It	6	0.45%
5.	Just Wait And	6	0.45%
5.	Killing Civilians In	6	0.45%
5.	Know How To	6	0.45%
5.	Latest News Regarding	6	0.45%
5.	Look At The	6	0.45%
5.	Lot Of People	6	0.45%
5.	Making Takfir On	6	0.45%
5.	Million Muslims Since	6	0.45%
5.	My Followers Are	6	0.45%
5.	Need To Get	6	0.45%
5.	News Regarding Voilent	6	0.45%
5.	Of His Time	6	0.45%
5.	Of The Adhir	6	0.45%
5.	Of The Book	6	0.45%
5.	Of The World	6	0.45%
5.	Of Them Are	6	0.45%
5.	On His Face	6	0.45%
5.	On One Hand	6	0.45%
5.	On Social Media	6	0.45%
5.	Only To Be	6	0.45%
5.	OUT SOON Https:	6	0.45%
5.	People Who Want	6	0.45%
5.	Please Suspend It	6	0.45%

5.	PT: This Shows	6	0.45%
5.	Regarding Voilent Regions	6	0.45%
5.	Sake Of Allah	6	0.45%
5.	Save The Queen	6	0.45%
5.	Seems Like A	6	0.45%
5.	Send Your Friend	6	0.45%
5.	Shout Me Out	6	0.45%
5.	So They Can	6	0.45%
5.	Stay Away From	6	0.45%
5.	Still Don't Understand	6	0.45%
5.	Support From The	6	0.45%
5.	Support Our Sister	6	0.45%
5.	Syrian Rebels Are	6	0.45%
5.	Tekfir Upon Mainstream	6	0.45%
5.	Thanks For The	6	0.45%
5.	That Awkward Moment	6	0.45%
5.	That He Was	6	0.45%
5.	That Is Not	6	0.45%
5.	That There Is	6	0.45%
5.	The Adhir Of	6	0.45%
5.	The Beginning Of	6	0.45%
5.	The Caucasus Emirate	6	0.45%
5.	The Difference Between	6	0.45%
5.	The Hands Of	6	0.45%
5.	The Help Of	6	0.45%
5.	The Kind Of	6	0.45%
5.	The Kuffar Will	6	0.45%
5.	The Middle Of	6	0.45%
5.	The Only One	6	0.45%
5.	The So Called	6	0.45%
5.	The Soldiers Of	6	0.45%
5.	The US Coalition	6	0.45%
5.	The Vast Majority	6	0.45%
5.	There Was A	6	0.45%
5.	There Was No	6	0.45%
5.	They Are All	6	0.45%
5.	They Are In	6	0.45%
5.	They Are The	6	0.45%
5.	They Don't Want	6	0.45%
5.	They Have Done	6	0.45%
5.	Think It Is	6	0.45%

5.	This Guy Is	6	0.45%
5.	This Is Official	6	0.45%
5.	Those Who Were	6	0.45%
5.	To Die For	6	0.45%
5.	To Get The	6	0.45%
5.	To Go To	6	0.45%
5.	To Join The	6	0.45%
5.	To Keep A	6	0.45%
5.	To Know How	6	0.45%
5.	To See A	6	0.45%
5.	To See That	6	0.45%
5.	To Take A	6	0.45%
5.	To The PKK	6	0.45%
5.	Us For Latest	6	0.45%
5.	USA Have Chose	6	0.45%
5.	Used To Be	6	0.45%
5.	Used To Remove	6	0.45%
5.	Want To Be	6	0.45%
5.	Want To Hear	6	0.45%
5.	Wanted To Leave	6	0.45%
5.	Watch This Video	6	0.45%
5.	We Are Coming	6	0.45%
5.	We Don't Want	6	0.45%
5.	We Have Stopped	6	0.45%
5.	We Have To	6	0.45%
5.	We Live In	6	0.45%
5.	We Want To	6	0.45%
5.	What Do You	6	0.45%
5.	When They Want	6	0.45%
5.	When You Are	6	0.45%
5.	Where Are Those	6	0.45%
5.	Will Kill All	6	0.45%
5.	Will Not Work	6	0.45%
5.	Would You Please	6	0.45%
5.	Years In Jail	6	0.45%
5.	Yes I Just	6	0.45%
5.	You Can Do	6	0.45%
5.	You Don't Know	6	0.45%
5.	You Have A	6	0.45%
5.	You Know Why	6	0.45%
5.	You Think That	6	0.45%

5.	You Will Be	6	0.45%
5.	You Will See	6	0.45%
5.	Your Map Too:	6	0.45%
TOTAL		**1343**	**100%**

APPENDIX E DEFINITIONS

For the purpose of this thesis, these terms are defined as followed:

1. ISIS- Refers to the organization the Islamic State of Iraq and Syria.

2. Supporters of ISIS- Individuals who are sympathetic of ISIS by using affirmative language and participate in the sharing of other supporters of ISIS online content.

3. Twitter- The online social networking platform and news site where users create accounts to connect with other global users. The platform is available at www.twitter.com

4. Tweet- A Twitter account user's online posting that is often referred to as a microblog because of its small amount of characters allowed.

5. Share or Retweet- The action of re-posting another user's tweet. Sometimes abbreviated to RT.

6. Follower- A Twitter account user who subscribes to another users Twitter page. The action of subscribing to another account is typically referred to as following someone on Twitter.

7. Hashtag- A metadata tag, in the form of a pound sign, used to identify topics and keywords on Twitter. An example of a hashtag is: #Example

8. Username- The Twitter user's unique online handle or identity.

9. Description- A small biography the Twitter user composes that is usually under 140 characters.

10. Like- The act of approving, of enjoying, agreeing with, or endorsing a Tweet.