

Spring 5-1-2013

# Tweet, Tweet, and Repeat: How College Students and Social Media Bring You the News

Judith Penelope Roberts  
*University of Southern Mississippi*

Follow this and additional works at: <https://aquila.usm.edu/dissertations>

---

## Recommended Citation

Roberts, Judith Penelope, "Tweet, Tweet, and Repeat: How College Students and Social Media Bring You the News" (2013).  
*Dissertations*. 595.  
<https://aquila.usm.edu/dissertations/595>

This Dissertation is brought to you for free and open access by The Aquila Digital Community. It has been accepted for inclusion in Dissertations by an authorized administrator of The Aquila Digital Community. For more information, please contact [Joshua.Cromwell@usm.edu](mailto:Joshua.Cromwell@usm.edu).

The University of Southern Mississippi

TWEET, TWEET, AND REPEAT:

HOW COLLEGE STUDENTS AND SOCIAL MEDIA BRING YOU THE NEWS

by

Judith Penelope Roberts

Abstract of a Dissertation  
Submitted to the Graduate School  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

May 2013

## ABSTRACT

### TWEET, TWEET, AND REPEAT:

#### HOW COLLEGE STUDENTS AND SOCIAL MEDIA BRING YOU THE NEWS

by Judith Penelope Roberts

May 2013

This study examined what college students tweet about, how that information is presented, and if age and/or social media experience play a role in the tweets. The researcher followed 118 college student participants on Twitter in the fall of 2012 to determine if use the social media network to communicate news and found that the college students in the study did use Twitter to communicate news and receive the news. Their main topics of Twitter conversation included sports, politics, and arts and entertainment, and they tweeted more opinionated tweets than pure factual tweets. Additionally, the researcher found students in the study enjoyed their tweets being retweeted because they felt someone else either agreed with their opinion or found their tweet interesting or amusing enough to share with other individuals. Also, students do not respond often in tweets, preferring instead to give their own opinion regarding a news event. They want to contribute their opinion, but they are less interested in responding than they are creating their own content regarding news information.

COPYRIGHT BY  
JUDITH PENELOPE ROBERTS  
2013



The University of Southern Mississippi

TWEET, TWEET, AND REPEAT:

HOW COLLEGE STUDENTS AND SOCIAL MEDIA BRING YOU THE NEWS

by

Judith Penelope Roberts

A Dissertation

Submitted to the Graduate School  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

Approved:

Fei Xue

Director

Dave Davies

Taralynn Hartsell

Kim LeDuff

Mary Sheffer

Susan A. Siltanen

Dean of the Graduate School

May 2013

## ACKNOWLEDGMENTS

First off, to my committee members—Dr. Dave Davies, Dr. Kim LeDuff, Dr. Taralynn Hartsell, and Dr. Mary Sheffer – you have inspired me, encouraged me, and pushed me to succeed, and I could not have done this without you.

And for my committee chair, Dr. Fei Xue – you were the first faculty member I met at USM, and despite my home being three and a half hours away and having to commute to class, you and all of my other professors worked with me throughout this four-year process. I am forever grateful to you and to every other professor at USM. I am proud to be a Golden Eagle.

To my fellow Tech employees who helped me through this as well – Dr. Reginald Owens, my department chair, who has been overly supportive through this process. I am lucky to have a boss like you. I would also like to specifically thank my department and its students, Dr. Leslie Guice, Amie Rolland, Dr. Tony Young, and Dr. Mary Livingston.

To my family – Wayne and Kathy McDaniel, who have been the best examples of parents and encouraged my husband and I to attain our doctorate degrees. I'm better at writing than I am talking, but even words could never thank you enough for all that you've done. You two, along with Judith Kellebrew and Jonann Byargeon, have been my prayer warriors.

To my husband – There's a special place in heaven for the man who has put up with my insanity during this time. You have calmed me, reinvigorated me, and have been a driving force behind this degree. You gave up so much to help me succeed.

And, lastly, to Kyla Alice – I did this for you.

TABLE OF CONTENTS

ABSTRACT ..... ii

ACKNOWLEDGMENTS ..... iii

LIST OF TABLES ..... vi

CHAPTER

I. INTRODUCTION .....1

    Purpose of the Study

    Significance of the Study

II. LITERATURE REVIEW .....5

    Definition of News

    College Students’ Consumption of News

    Social Media and Journalism

    Theoretical Underpinnings

    History of Agenda Setting Theory

    Gatekeeping

    Beginning of Agenda Setting

    Early Agenda-Setting Research

    Recent Agenda-Setting Research

    Studies in Agenda Setting and Social Media

    Media Outlets and Agenda Setting

    Research Questions

III. METHODOLOGY .....41

    Procedure

    Sample

    Coding Categories

    Focus Group

IV. RESULTS .....53

    Personal Relevance of News

    Retweet and Add-on Information

    Impact of User Age



	Impact of Personal Experience	
V.	QUALITATIVE RESULTS .....	80
	Focus Group	
	Main Topics	
	Adding and Viewing Links and Pictures	
	Increase of Twitter Usage	
	Retweeting	
	Receiving and Distributing News on Twitter	
VI.	DISCUSSION.....	91
	Research Question 1	
	Research Question 2	
	Research Question 3	
	Research Question 4	
	Research Question 5	
	Limitations and Future Research	
VII.	CONCLUSION .....	106
	APPENDIXES .....	109
	REFERENCES .....	136

## LIST OF TABLES

### Tables

1.	News Significance and Personal Significance in Tweets .....	53
2.	News Significance and Personal Significance in Tweets in Relation to Gender...54	
3.	News Significance and Personal Significance in Tweets in Relation to Geographic Location .....	56
4.	Main Topic of Tweets .....	57
5.	Main Topic and Gender .....	58
6.	Main Topic and Geographic Regions .....	59
7.	Facts and Opinions in Tweets .....	61
8.	Facts and Opinions with Gender.....	61
9.	Facts and Opinions with Geographic Regions.....	62
10.	Responses in Tweets .....	63
11.	Response of Tweets in Comparison to Gender.....	64
12.	Response of Tweets in Comparison to Geographic Regions.....	65
13.	Retweets and Add-on Information Included in Tweets .....	67
14.	Retweets and Add-on Information in Regards to Gender.....	68
15.	Retweets and Add-on Information in Regards to Geographic Region .....	69
16.	Correlations of Age.....	71
17.	Age in Comparison to Number of Tweets .....	72
18.	Age Regression .....	73
19.	Main Topic and Average Age.....	75

20.	Correlations with How Often Students Have Used Twitter.....	76
21.	Usage of Twitter and Number of Tweets.....	77
22.	Social Media Experience Regression.....	78

## CHAPTER I

### INTRODUCTION

While many social media tools, such as Facebook or Twitter, offer techniques to users to discuss their favorite books, movies, and hobbies, these social media outlets also can be an informative communication tool for users to discuss any news event at any age, any time, or any place. By seeing how Twitter in particular sparked revolts in Egypt in early 2011, united Americans in the Occupy Wall Street Movement in the fall of the same year, and fostered worldwide assistance after the Japanese earthquake and tsunami in March 2011, we can see that social media has taken the world by storm; using micro-blogging to encourage macro-reactions. When Michael Jackson died in 2009, social media users young and old turned to the Internet in hopes of discussing the pop celebrity's death (Sanderson & Cheong, 2010). Similarly, when the Penn State scandal broke in November 2011, when assistant football coach Jerry Sandusky was found guilty of child molestation and former head football coach Joe Paterno died January 2012, social media activists took to their computers and cell phones to share news stories or post their own thoughts on the situation and, in many cases, asking for others' opinions (Wood, 2012). It was a virtual community connected despite distance to discuss an event, which they could read about, view pictures and videos, and most importantly, post their own comments on the news.

As Twitter has more than 100 million active users who log in at least once a day and shows promise for continued growth (Bennett, 2012), it is safe to say that Twitter is an area of research that needs to be addressed, especially when dealing with the agenda-setting aspect of the media and the audience involved in Twitter applications. More than

half of Twitter users share links to news stories, and, of that half, about one-tenth do this at least once a day (Smith & Rainie, 2010). As individuals under the age of 30 are more active on Twitter (Pew Research Center, 2011), it is prudent to determine how college students receive their news and respond to it. This research hopes to gain insight on what news issues are brought up on Twitter, how individuals who have Twitter accounts respond to or discuss various news events, and how users employ Twitter to gather information.

### Purpose of the Study

This study will utilize the agenda setting theory to examine what college students tweet about, how that information is presented, and if age and/or social media experience play a role in the tweets. Also, tweets that include links to news websites or media tweets will be analyzed to see what Twitter users discuss most using this social media network. This could be beneficial for online media outlets, local or national, that utilize social media as a tool to garner more attention to their website. Previous research, as will be discussed in the literature review, had revealed that more individuals, especially the younger generation, are becoming more apt at using social media. This research will assist the media in determining what a college student audience desires. With more companies and media heads turning to social media, individual users are responding or relaying news themselves – sometimes by as easily as pressing “retweet.” This research will focus on Twitter as its social media aspect, as Twitter is a micro-blogging tool used to pass information quickly through use of the Internet and mobile devices. A content analysis and follow-up focus group study on tweets created by a sample of freshmen through graduate students will be used to determine whether or not students are relaying

news and receiving news through this micro-blogging tool. Social media sites continue to evolve to keep up with the ever-changing face of its clientele. While many young adults use these sites to keep in touch with friends and receive updates from around the world, social media has become an instantaneous activity; one can be anywhere with cell reception and update his or her status. As social media outlets generally target individuals who are college-age, around 18-24 years of age (Adults get social, 2009), and given that statement, the following statistics are not so startling:

- 75% of adults 18-24 years of age who are active on the Internet have a social networking profile (Adults get social, 2009).
- 87.1% of college students in a 2008 survey had a social networking account and spent more than one hour a day on those accounts (Raacke & Bonds-Raacke, 2008).
- Those with social networking profiles log into their accounts around four times each day (Raacke & Bonds-Raacke, 2008).

#### Significance of the Study

The applications related to Twitter continue to develop, making this a valuable source of information in scholarly and practical applications. As Boczkowski and Peer (2011) found, the media play a watchdog role in the democratic society through public affairs stories and their ability to distribute information to the public in a timely and effective fashion. Additionally, even features, or soft news, which is becoming more prevalent in many media outlets, shows strong consumer involvement (Boczkowski & Peer, 2011), which can indicate an audience that is interested in the democratic process and wants to participate in the news process. Twitter, as a social media tool, has not only become a source of networking; it's also quickly rising to a news source. A recent Pew

poll showed that 55% of Twitter users share links to news stories, and about one in ten (12%) do this at least once a day (Smith & Rainie, 2010). Based on these statistics and from looking at Twitter from a theoretical standpoint, it should be beneficial to determine how college students receive and distribute news information on Twitter. Content analysis will allow the researcher to determine what collegiate students tweet about, how they present that information, and if demographic factors, such as gender, play a role in what individual users post on the social media network. The literature review will discuss the origins and variations of agenda setting, including first- and second-level agenda setting, priming, and framing, as well as studies conducted by agenda-setting scholars, which will assist in the shaping of this social media research.

By using content analysis and focus groups, this study will examine how college students use Twitter to receive and relay news information. The coding categories will include variables from Tewksbury's (2006) study relating to news values and Lim, Cha, Park, Lee, and Kim's (2011) research using event-driven social media to determine why individuals use social media websites and how they feel after one of their messages is retweeted. A questionnaire (see Appendix B) will be used in finding subjects for the study from four universities across the nation. Main categories will include various subsections of news events that are tweeted about and personal factors, such as age and social media experience.

## CHAPTER II

### LITERATURE REVIEW

#### Definition of News

While a multitude of subjects will draw individuals to information the media produce, including crime, entertainment, sports, weather, and local activities, the media's influence involving the salience of topics in the public agenda is part of the agenda-setting role of media (McCombs & Reynolds, 2009; Mencher, 2003). McManus (1994) suggests that two steps takes place in the news process: news discovery, which is the first contact with the first source in which information is determined, and news reporting, in which the media member obtains the news information. In the 19<sup>th</sup> century, newspapers appealed to a wide audience and included offenses, tragedies, humor, and human interest articles. James Gordon Bennett, publisher of *The New York Herald* in the early 1900s, included commercial and political news in his paper, and this inclination to merge entertainment, information, and public service was stressed also by Joseph Pulitzer, who included sensational articles in his newspaper (Mencher, 2003). With the evolution of computers and rise of easy access of information by the general populace, the product media distribute has begun to shift as they analyze and compare a wealth of information (Bender, Davenport, Drager, & Fedler, 2012). By the 1990s, editors turned more to human interest stories for audience members concerned with health, children, and money, among other items. However, those other items that are included in media distribution must contain some form of news values:

- **Timeliness:** Individuals want information that is recent or has an immediacy to it.



- Impact: Media seek to distribute information that is most likely to affect a wide range of individuals, not just a small section of their audience.
- Prominence: If a piece of information involves a well-known individual or institution, it is likely to be distributed by media.
- Proximity: Information that is geographically or emotionally near to the audience is more likely to be distributed.
- Conflict: War, conflict, or any sort of antagonism is likely to be a source of interest for the general public.
- The Unusual: Events that diverge from the norm of the audience members can be a source of news.
- Currency: Even situations that have perhaps been known for some time can become news if the media feel the public has a need and a right to the knowledge.
- Necessity: Occasionally, members of the media will discover information that needs to be distributed to audience members quickly and effectively (Mencher, 2003).

Media create the news that is distributed to their audience members based on these eight news values, knowing, as Kim (2008) found, that one is more likely to read, watch, or listen to the news if it has a personal impact in their lives based on one of these aforementioned factors. Additionally, An and Gower (2005) noted five news frames that can be taken into consideration: attribution of responsibility, human interest, conflict, morality, and economic. If the information is timely, will impact a large number of individuals, involve recognized persons or institutions, are close physically or

emotionally to the audience, involve conflict, are unusual, are suddenly current, or are necessary for the individuals to know, the information becomes newsworthy (Mencher, 2003). News is not information that is well-known or custom; media will not report what has been deemed common knowledge or routine procedures, such as police raced to the scene of an accident or that the city council met in the City Hall (Bender et al., 2012). However, these news values can be compromised depending on a variety of factors, making what is newsworthy suddenly undisclosed (Mencher, 2003). As news varies from medium to medium, information that is headline news for a small, local organization may not receive coverage from larger, regional outlet. Even the type of media can regulate the information distributed; television broadcasts highlight a few major events of the day while a newspaper will go more in-depth and most likely include more stories (Bender et al., 2012). Personal factors, including journalistic bias, can influence what is distributed. The media are a business seeking profit, and therefore, economic pressures can contribute as to what is publicized. Competition with media, whether print, online, or broadcast, can also affect what is distributed. Also, some owners are cautious and unwilling to stir controversy. Other times, media can be affected by tradition – for example, a general publication may decide something is newsworthy while a public service journalism outlet may decide the information is not necessary to distribute to its audience. Lastly, the audience always plays a role. Media survive because of the audience. Therefore, the media will print what the audience desires (Mencher, 2003). For example, *The New York Post* will emphasize news dealing with crime, sex, and sports rather than financial or political news, as *The New York Times* stresses, because the *Times*' audience is generally

wealthier, better educated, and more interested in politics, the economy, and foreign affairs than the *Post's* audience (Bender et al., 2012).

News can also be classified into two categories. Hard news refers to staid and timely news, such as a crime, a tragedy, a speech, or a dispute. Hard news has also been dubbed spot news or breaking news due to its timeliness factor. This hard news retells what happened, who it happened to, why it happened, and how readers are likely to be affected. Soft news, on the other hand, deals with stories that are more entertaining than timely and emphasize human interest, often called infotainment, as it seeks more to entertain (Grondin, 2012). Both types of news stories inform the audience, but hard news focuses more on stoic information while soft news is blither and does not have a time factor (Bender et al., 2012; Rich, 2003). However, as previous research has pointed out, soft news relates to more of late-night news programs, comedy programs, or magazine shows (Brewer & Cao, 2006). Additional news values for soft news includes information relating to celebrities, which includes self-made celebrities, entertainers, athletes, or other individuals known for their accomplishments; human interest stories relating to individuals who have special problems, achievements, or experiences; helpful articles focusing on health or consumption; entertainment news that amuses the audience; or trends, which indicate patterns or shifts in issues relating to the audience (Rich, 2003). As will be discussed further, college students seek hard and soft news information from a variety of sources.

### College Students' Consumption of News

A 2012 Pew Center study found that the percentage of Americans who receive their news from online sources continues to grow, due in partiality to social networking

sites. In 2010, the percentage of Americans who said they received their news from social networking sites was at 9%, but in 2012, that number more than doubled to 19%. (“In Changing News Landscape, Even Television is Vulnerable,” 2012). Previous research has revealed that students’ consumption of the news media is varied. Because of the variety of sources college students now have available to them, a complex media environment has been created, which allows them to receive their news from a range of different media. Additionally, conventional news media feed online habits by encouraging their audiences to visit their websites, thus making college students who turn to traditional media, such as print, television, and/or radio, knowledgeable news consumers who rely on in-depth print and electronic sources (Diddi & LaRose, 2006). In fact, Williamson, Qayyum, Hidler, & Lie (2012) noted that college students still have a high regard for print media, often due to their parents’ choice of news consumption. However, the college students, while avid print newspaper readers, are also very much involved in online activity. The Internet and online networking sites are key fixtures in the lives of young adults, but their consumption of the traditional media co-exists with their desire to receive news online as well. Therefore, even though scholars have noted a decline in traditional news sources in the United States among the younger generation due to the traditional media not focusing on younger adults’ needs and interests (Ahlers, 2006), more recent research has noticed that well-educated individuals, such as college students, are likely to receive their media from traditional and online media sources (Williamson et al., 2012). Additionally, as Henke (1985) pointed out, college students’ media habits are likely to remain throughout their lives, as college years are particularly important in the socialization of news media habits, which can therefore create a desire to

use a variety of news habits to influence political awareness, knowledge, and activity.

Social media has aided in this online journey in news consumers' search for information.

### Social Media and Journalism

Twitter is a micro-blogging tool created in 2006 where users can send out small information updates called tweets (Twitter.com/about, 2011). The tweets cannot be more than 140 characters long and can include a variety of embedded media, including pictures, links, and videos. Available in a variety of languages, those with a Twitter account can tweet or retweet as much as they want, or as little as they want. They can choose to have their accounts private or open, can follow everyone ranging from their friends to celebrities, and can update their Twitter via any device with Internet capabilities, such as an iPad, computer, or smart phone, or through SMS on a mobile phone (Twitter.com/about, 2011). Twitter users can follow one individual or one hundred. They can tweet dozens of times a day or not at all. Therefore, Twitter is also both a mass channel and an interpersonal channel. Twitter users can exchange information of their choosing and receive information from other Twitter users, making it a mass channel, and they can also apply this information and respond to other users in real time, using Twitter as an interpersonal channel (Thiriot & Kant, 2008). At the time of this study, Twitter had more than 200 million users with about 460,000 new accounts opened each day. One billion tweets are written weekly. With this much information being created in a short amount of time, it is no surprise that this social media, which is rumored to be worth more than \$4.5 billion, has changed media, politics, and business (Picard, 2011). The ability to contact peers through online social networks has truly become a significant part of contemporary student life (Eberhardt, 2007). Millions of

Twitter users can post as little or as much about themselves for friends – and sometimes people who are not listed as friends, depending on one’s privacy settings – and leave messages on their friends’ personal pages for the general public to view (Raacke & Bonds-Raacke, 2008). Users who connect with each other and become friends are instantly able to view each other’s information (Spencer, 2007). Individuals have a variety of options for social networking, but Twitter has taken micro-blogging to an extreme. This social media tool allows users to create a 140-character message to followers who have subscribed to receive the user’s Twitter updates (Palser, 2009). It, like Facebook and LinkedIn, is a free social networking site, but it is more similar to text messaging or instant messaging than the previously two stated sites. However, unlike text and instant messaging, Twitter users send the message to everyone subscribed to receive their messages (Farhi, 2009). This micro-blogging is similar to a RSS feed, where users automatically receive an update either through the website itself, through e-mail, or in a cell phone message. In fact, Palser’s (2009) research has shown that Twitter users are more likely to receive these updates through a smart phone or cell phone text message. Lim et al. (2011) found that through event-driven social media, individuals who use social media and post about news events often update through text messages using their cell phone device. Additionally, Palser’s (2009) research also showed that Twitter users are the least likely to read a print version of a newspaper. News stories no longer are breaking from just the trained journalists; individuals who are at the events such as a football game, a natural disaster, or near celebrities, can tweet the information instantly to their followers. No longer do gatekeepers control the voice of political messages; Twitter has created a more diverse political structure where many politicians have Twitter

accounts to distribute their messages (Picard, 2011). Barack Obama, for example, became the first Internet president through social media. The Obama campaign team used Twitter to give continuous details regarding news and volunteer opportunities. Other various social networking sites were also tapped, including MySpace, as well as Facebook, YouTube, Flickr, Digg, and many others (Greengard, 2009). Lastly, businesses have begun opening Twitter accounts in order to communicate faster with their customers and employees. Instant messages can be quickly distributed from the company, and they can receive feedback regarding a product or service in real time (Picard, 2011). However, based on Twitaholic (2011), a site devoted to determining who has the most Twitter followers, the majority of Twitter users are more interested in celebrities than news, business, or politics. The five individuals with the most Twitter followers are reality TV star Kim Kardashian (No. 5) and singers Shakira (No. 4), Katy Perry (No. 3), Justin Bieber (No. 2), and Lady Gaga (No. 1), who has more than 17.9 million followers. The top ranked media outlet with the most Twitter followers is CNN's Breaking News account, ranked at No. 27 with 6.1 million followers. *The New York Times'* Twitter is ranked at No. 60, E! Online at No. 72, Breaking News at No. 79, CNN at No. 81, *People* magazine at No. 89, and *Time* magazine at No. 98. Soft news journalists are also being followed, with Jimmy Fallon at No. 62, Conan O'Brien at No. 64, Perez Hilton at No. 90 (Twitaholic, 2011).

Twitter was chosen for this study because of its social media growth, because of its ability for users to break news events instantly, and because media as well are using it to distribute information (Maier, 2010; Simon, 2010). Simon (2010) has dubbed this period of history as a Twitter revolution due to the access of information from across the

globe – despite restrictive governments and despite the lack of citizens’ training in journalism. The flow of information continues to expand, and even oppressive governments are having a hard time repressing the information. Pulling the plug on the Internet is an extreme measure though governments, including Iran and China, have done so in recent years. Tunisia and Vietnam use monitors, filters, firewalls, and pressure on service providers in a feeble attempt to restrict the flow of information, though it is hard to overcome. Everyone with a smart phone can gather and distribute information, including pictures and videos, through SMS sites like Twitter. The only way this flow of information can be hindered is to limit access to Internet or cellular networks, but most likely individuals will find another way. Before the rise of the Internet, professional journalists were seen as news gatherers. Now, anyone can do the same (Simon, 2010). However, because this technology is comparatively new, researchers have not had enough time to study it in depth – even among social networks, Twitter has received less attention than Facebook (Chen, 2011). Additionally, if the news media are simply presenting online stories as copies of the ones found in the print edition (Maier, 2010), maybe the surge to receive news updates via Twitter is from individuals’ desire to see a raw, unedited form of the world and of the news that is not seen in traditional forms of media.

The Pew Center has conducted several studies related to Twitter and other forms of social media, attempting to determine who uses social media sites and for what purpose. Hampton, Goulet, Rainey, and Purcell (2011) suggested that the amount one spends on social media sites even varied; for example, 52% of Facebook users log in on a daily basis, but only 33% of Twitter users accessed their account daily. However, in the



same study, Twitter has experienced the highest rate of growth in new members among social networking sites. Schultz and Sheffer (2011) found that gender and age were strong predictors among users who visited social media sites for sports-related material, and the female sports audience is growing in their utilization of social media. Madden and Zickuhr (2011) reported that more than half of all adults use social networking sites, and 43% of adults who use the Internet regularly log into their social networking accounts on a daily basis. Women between the ages of 18 and 29 are the most prominent users of social networking at 89% of women in that age group accessing social media. Young adults are still the most dominant users of social networking sites. But, older age groups have seen faster growth in recent years in that 33% of individuals 65 years of age or older has grown from 13% in 2009 to 33% in 2011 (Madden & Zickuhr, 2011).

#### Theoretical Underpinnings

The agenda setting theory will be used for this research. Agenda setting states that the media tell us how and what to think about and what to think about (McCombs & Shaw, 1972; McCombs & Estrada, 1997). Data seems to suggest that there is a connection between the media attention on the issue and the audience's belief that the issue is important (Funkhouser, 1973). First-level agenda setting deals with the salience of issues, and the second level focuses on the salience of attributes, themes, or aspects of issues (Son & Weaver, 2005). Uscinski (2009) also stated that some issues are salient in the media due to the audience influence over the media, which is one of the news values (Mencher, 2003). Media polls also have revealed that journalists believe what is news in their media outlet is information that their audience will find interesting or is necessary to the audience (Uscinski, 2009). Second-level agenda setting and framing, which shows

how issues are depicted in the media more than which issues are reported, will also be discussed and studied (Weaver, 2007).

### History of Agenda Setting Theory

Agenda setting refers to the media's capacity to raise an issue to a higher level of importance in the mind of the audience. This is accomplished through repeated coverage and allowing the audience to receive heightened awareness of the issue (Funkhouser, 1973). Agenda setting came as a result of an extension of the limited effects theory and the two-step flow theory. After World War I, scholars began to believe in the bullet theory or hypodermic needle theory, which states that the mass media have a great deal of power of influence over their audience members. However, this method of thinking conforms the audience into vulnerable targets who are isolated and easily influenced by mass media messages, and, by 1945, a new theory of limited effects of the mass media had come to light. The limited effects theory gives audience members a higher resistance to persuasion came from mediating factors that typically render mass communications as a contributing agent, instead of a sole agent, of reinforcing existing conditions. Mass communication is more of reinforcement of certain opinions. However, mass media is believed to be effective in creating opinions among individuals who, previously, had no opinion on a subject (Klapper, 1960). To clarify, media cannot solely influence an individual with a sphere of influence, such as family members, colleagues, and other associates. As Cohen (1963) adequately described it, the media are not always successful in telling people what to think, but they are very successful in telling people what to think about. Because of this, one's world will look different to different individuals based on their own life experiences, their social group, and the media.

Turning to the two-step flow theory, Katz (1957) stated that ideas can flow from media to opinion leaders to followers, thus generating a two-step flow of communication. Opinion leaders influence individuals who are similar to them in interests and social groups, though spheres of influence can change based on an individual's role in various organizations. Additionally, despite the greater amount opinion leaders generally have regarding media access and exposure, opinion leaders are still more influenced by other individuals rather than the media. Interpersonal relationships, more than media, assist in one's decision making and desire to conform to societal similarities. However, as far as followers are concerned, Lazarsfeld (1948) found that followers are more likely to be influenced by opinion leaders, often simply because the followers have face-to-face contact with opinion leaders and not with media officials. Who is an opinion leader and who is a follower is most likely to be determined based on the subject matter discussed. All interpersonal relationships have the potential of having opinion leaders and followers, though opinion leaders will generally be more well-educated and be more highly exposed to mass media (Katz & Lazarsfeld, 1955).

Modern effects theories take the position that the limited effects theory minimizes the role of mass media too much. In response, Gerbner's cultivation theory combined macro- and micro-level theories and suggested the exposure of the same media messages over a period of time creates a sense of cultivation, or a common worldview. Gerbner suggested that television viewing most likely created a skewed worldview in the mind of the audience because individuals who participated in heavy television viewing were more likely to believe the world was similar to what they saw on television. For example, individuals who watched a lot of violent programming were more likely to believe the

world was a more violent place than it was. According to Gerbner (1990), culture introduces roles of gender, class, vocation, and models of normality, and television, where many individuals grasp their worldview of their culture, blurs individuals' perception of their world, blends realities into what is shown on television, and bends the mainstream culture to the interests of television and its sponsors. While cultivation theory originally was created to answer questions about audience members' television viewing habits, the extended cultivation hypothesis states that the original cultivation theory may not be applicable for all television programming but instead for certain genres. This also relates to Lewin's research regarding gatekeeping.

### Gatekeeping

In Lewin's 1951 research regarding to how the audience receives its news, stated that an individual or a group who is in a position of power can make the decision whether to share news information or not. The reasoning behind what information is shared and what is withheld depends on the individual or group's ideology and the way the individual or group perceives a particular situation, and the same can be said for Twitter groups, as in the following of individuals. In other words, one's cognitive structure partly determines what he or she determines as news, but motivation, the system of values behind one's choice, also assists. Fortunato (2005) stated that the complex decision-making process begins in the newsroom but goes through a variety of gates and individuals before news is distributed. The first gatekeeper would be the editor who sends a reporter out to a scene to gather information. The reporter then, based on his own cognitive reasoning and motivations, gathers information he or she feels is pertinent. The reporter returns to the newsroom, where he or she writes a story, selects pictures, or

selects a frame in which to distribute the story. Various editors will also have a hand in the gatekeeping process to determine where the story goes, what edits will be made, and when or even if the story is distributed. As White's (1950) study determined, often coverage of political events, for example, is deemed as newsworthy, as is information that comes from a wire service, and agenda setting does take part in gatekeeping. White pointed out that gatekeepers can be seen as an audience influenced by an agenda-setting effect. They select the news for their audience based on what larger news organizations -- larger gatekeepers -- tell them is newsworthy. Shoemaker (1991) agreed that gatekeepers choose what information to distribute and what to withhold. When the process of gatekeeping begins with a communication messenger who receives the information, a gatekeeper determines the item's news value. As mentioned earlier, some items hold more news value than others, though a gatekeeper's personal opinion can also influence what is distributed. Gatekeeping also has effects on audience members. Items that appear prominently in media outlets the audience reads, watches, or listens to becomes part of the audience's version of social reality. If the gatekeeper does not prominently and frequently distribute the news information, the news does not become part of the audience's reality (Shoemaker, 1991).

#### Beginning of Agenda Setting

The origins of agenda setting begin in the 1950s and 1960s when scholars became discontent with the leading theoretical position of mass communications' limited effects model (Severin & Tankard, 2001). This agenda-setting role of the media refers to the ability to influence the salience of topics on the public agenda (McCombs & Reynolds, 2009; Scheufele, 2000). As McCombs and Estrada (1997) explained, the

media may tell audience members what to think about, how to think about it, and what to do about it. Agenda setting states that the more salient an issue in the mass media, the more influential or important it will seem by the public (Funkhouser, 1973). Traditional journalistic values today indicate that the media are trying to inform more than persuade, but journalists are the gatekeepers of news information; based on their news values, they choose to relay certain stories and perhaps not cover others. Media do not have the ability to gather every iota of information available nor the ability to distribute it to the audience, and therefore, they rely on news values to determine what knowledge the public should know, which results in a limited view of the larger environment (Baran & Davis, 2006; McCombs & Reynolds, 2009; Mencher, 2003). As Long (1958) pointed out, media have the power to determine what individuals talk about, what they believe the facts are, and how people believe problems should be solved. Stories are deemed newsworthy if they are relevant to the audience, which is one of the news values. Therefore, the audience's assessment of issue salience will influence a media outlet's decision to distribute the information regarding those issues (Mencher, 2003; Uscinski, 2009). Many members of the media have stated that they define newsworthiness as stories that are consequential to their audience or contain knowledge that will interest the audience, though while the public agenda occasionally will influence the media agenda, in general, it has not received much support (Behr & Iyengar, 1985; Uscinski, 2009). Agenda-setting studies were seen as a means to support the idea that the media exerted influence over the audience, though due to units of time, time lags, and issues reported, studying the public influence over the media is often difficult to accomplish and therefore may lead to an overestimation of the media's agenda-setting influence and an underestimation of the

public's agenda-setting influence over the media. Two frameworks of study have been addressed as researchers attempt to find more unambiguous evidence of the public's influence over the media – the agenda-setting framework in which media influence public agenda, and the audience-driven framework, which focuses on the audience's influence over the media (Uscinski, 2009).

Agenda setting can allow scholars to determine the frequency audience members are exposed to a particular issue and then to determine how easily that issue is recalled in memory. Scholars have stated that the more frequent an issue is covered, the more likely it is to be used by the audience. However, salience of an issue alone does not prove agenda setting. Distinctions must be made between the central theme or frame of an issue and the various attributes of the issue (Kim, Han, Choi, & Kim, 2012). Agenda setting also differs in designations, involving a first level and a second level. The first level focuses on the item or items that define the agenda, which are usually operationally defined as perceived importance (McCombs & Reynolds, 2009; Weaver, 2007). The object or issue's attributes that media focus on can affect the audience's view of the saliency of those attributes (McCombs, 2004). For the media agenda, the salience of issues can be determined by the total percentage of news coverage on the particular issue (McCombs & Reynolds, 2009). The first level deals with the prominence of issues or objects, and the second level of agenda setting emphasizes study of the salience of attributes, themes, or aspects of issues (Son & Weaver, 2005; Weaver, 2007). Attributes are issues or objects, and this second level, also sometimes called attribute agenda setting, shifts the role of agenda setting from focusing on the media's role in telling the audience what to think about to how to think about objects (Lee, 2010; Sheafer, 2007). This level

of agenda setting shifts the focus to the agenda of the individual and studies the agenda's attributes, which are characteristics and properties to describe an object and can often be reasons why individuals support or oppose issues (Kim et al., 2012; McCombs & Reynolds, 2009). Second-level agenda setting suggests that these attributes that are emphasized by the media will influence the public perception of the issues (Lee, 2010). While the first level of agenda setting deals with the media's role in setting the public agenda, the second level of agenda setting deals more with the audience and, particularly each individual. Second-level agenda setting can distinguish aggregate measures describing an entire population or individual responses. This level focuses more on the attributes of the issues, which can be numerous. Additionally, attributes can have two dimensions: the cognitive element regarding the substantive characteristics of an object and an affective component concerning the tone, positive, negative, or neutral, of the characteristics in the media's or public's agenda (McCombs & Reynolds, 2009). This second level of agenda setting can offer a valuable outlook to study the influence of news on the public mind regarding not only the transfer of issues but also the transfer of attributes from the media to the audience (Lopez-Escobar, Llamas, & McCombs, 1998). Certain issues that are emphasized by the media become salient in the minds of the audience and then can function as major attributes regarding an issue (Kim et al., 2012). The variety of issue attributes and how they are emphasized can be examined at the second level to assist in proving the validity of this theory (McCombs & Reynolds, 2009).

First- and second-level agenda setting also call into effect priming and framing. Priming can be seen as a consequence of first-level agenda setting, and attribute priming



can be seen as an important outcome of second-level agenda setting (Kim et al., 2012; McCombs & Reynolds, 2009). Attribute agenda setting and attribute priming, which are both accessibility-based models (Price & Tewksbury, 1997), can demonstrate how the content of the news provides a detailed understanding of what audience members see in their heads and garner opinions for that content. The effects are not necessarily a result due to the media's persuasion but simply a byproduct of the media's focus on a small number of news issues, their decision of which to make salient, and the audience's decision on how much time to spend with the media (McCombs & Reynolds, 2009). The media can efficiently choose which issues to make salient and therefore prime issues that will be used prominently when audience members determine their opinions regarding issues in the news; therefore, these interrelated developments of attribute agenda setting and priming can demonstrate how public opinion is shaped (Kim et al., 2012). Priming and attribute agenda setting can also answer why opinion formation occurs more than first-level agenda setting, and it can assist in demonstrating fact transfer among the audience. Priming gives an example of explaining the media role as an opinion shaper while agenda setting focuses on salience transfer (Lee, 2010).

Framing, an applicability-based model (Price & Tewksbury, 1997), studies various aspects of messages and types of messages and can be reviewed with systematic content analysis or interpretive textual analysis. Scholars have disagreed as to whether second-level agenda-setting is equivalent to macro-level framing (Weaver, 2007), but regardless, framing and attribute agenda setting establish communicators' and audience's perspectives relating to topics in the news (McCombs & Reynolds, 2009). Second-level agenda setting and framing are both concerned with how issues are portrayed more than

which issues are reported, which can be seen through what college students tweet about and how they tweet about them. Both focus on the saliency of the aspects and themes, though framing, more so than second-level agenda setting, also includes cognitive processes, such as moral assessments and casual analysis (Weaver, 2007). An issue's framing in the media gives audience members valuable clues that, when applied with pre-existing cognitive schemata, can grant the audience evidence in determining an opinion regarding the issue (Scheufele, 2000).

### Early Agenda-Setting Research

McCombs and Reynolds (2009) stated that the best way to determine agenda setting is through research, which has been conducted by a variety of scholars in the mass communication field. In 1972, McCombs and Shaw conducted the Chapel Hill study, which hypothesized that the mass media set the agenda for political campaigns and therefore influenced the audience's salience of attitude toward political issues. The researchers sought to determine what Chapel Hill, N.C., voters felt were the most important issues in the 1968 presidential campaign compared to the actual content produced by the media during the campaign. By conducting interviews with voters and employing content analysis, they discovered that a significant amount of campaign news was dedicated to the political horse race instead of the major political issues, that the media did appear to impact voter's judgments of what they considered to be the major campaign issues, and that the media have a point of view and sometimes extreme biases. In other words, McCombs and Shaw (1972) determined that the main effect of news media was telling audience not what to think, but what to think about. The next year, Funkhouser (1973) studied the relationship between news coverage and public

determination regarding issues of importance. He also studied the actual prominence of certain issues in light of reality, and the results found a strong correspondence between public ranking of an issue's importance and the issue's frequency of coverage by the media. Those issues that the public gave a high ranking were also the ones that news magazines, his unit of analysis, provided considerable coverage (Funkhouser 1973). Over a decade later, Iyengar and Kinder (1987) stated that the issues that received most prominent coverage by news media were the ones that the public began to view as the most important issues of the day.

#### Recent Agenda-Setting Research

More recent research has focused on priming as a part of agenda setting. Sheaffer (2007) studied affective priming to see if audience members use positive or negative attributes to make judgments regarding news. The results indicated that the more negative the media portrayed the issue, the lower the audience felt regarding the issue, that there is a connection between media tone and media exposure, and increased salience of an issue signals audience members about related aspects. In the case of Sheaffer's (2007) study, a negative portrayal of the economy signaled a negative evaluation of a political incumbent by voters involved in the study. Thus, priming combines message strength and message direction to have an affective component on the audience (Sheaffer, 2007). Son and Weaver (2005) conducted another political study, which determined that individuals, through the media, learn what the political issues are and order them in significance by how much they are emphasized. This particular study indicated that, over a period of time, candidates who received favorable, frequent coverage received higher public appeal than candidates whose coverage was negative and infrequent (Son & Weaver, 2005). Kim

et al. (2012) suggests that the media influence attribute accessibility. As the media chooses what to emphasize and what not to highlight, the more salient attributes are more likely to be the ones audience members choose to determine their opinions regarding the issue, showing that the media have power over telling individuals what is worthy to think about when judging an issue for its importance.

Research has also indicated that the news seeks to emphasize issues the public deems as important. Uscinski (2009) suggested that the audience plays a role in shaping national news. Events that are high in news value naturally will be reported on frequently and have an agenda-setting role for the public. However, issues that do not, to media, seem high in news value will not receive coverage unless the public demands it. However, Boczkowski and Peer (2011) found that media do try to emphasize public affairs stories when there are fewer issues to cover, despite what consumers wish to be covered. Their study, which involved online news, found that there is an increasing supply of soft news content over hard news content, though the majority of stories covered still are hard news, and the majority deal with public affairs. Another study determined that audience participation plays a role in agenda setting, as individuals who are knowledgeable and depend on the media for information in political processes are the ones more likely to participate in political affairs (Lopez-Escobar et al., 1998). Lee (2010), in his search to determine if first- and second-level agenda setting effects were significant in global warming coverage, found that priming effects were caused more by second-level agenda effects and the exposure of issue attributes led the audience to attribute salience transfer from the media. The research revealed that subjects exposed to the issue and its attributes were more likely to feel a desire to participate in the issue.

McCombs' (2004) research on the community structure and agenda setting found that there are autonomous, complementary perspectives influencing coverage in community newspapers. His study looked at the influence of the community and certain demographic groups to determine what issues received emphasis in local daily newspapers. Though agenda setting emphasizes that the media must be similar in salient news coverage, for local news, the agenda may deviate based on concerns of the local community. McCombs stated that community structure scholars look at patterns of news coverage among newspapers and the differences in the social structure in the communities while agenda-setting researchers look at similarities of local and elite media and large regional dailies to determine what agenda is set.

#### Studies in Agenda Setting and Social Media

Several studies have been conducted to determine how agenda setting relates to social media. Meraz (2009) conducted a research on hyperlink usage on political blogs to determine the influence and agenda setting of traditional media outlets and top bloggers among elite newspaper blogs. The research sought to determine if traditional media outlets were still influencers in the political blogosphere. Using 18 of the most popular political blogs, the researcher used a content analysis to study and examine URLs of the blog Web sites. A one-way ANOVA showed that link frequency differed significantly as a function of partisan orientation of the blogs used in the research, with the significance being greater than .05 with each of the three news issues studied. A t-test showed no significant differences in links to citizen media or traditional media. Overall, the study found that traditional media do not serve as gatekeepers as much as they once did. Independent bloggers are becoming more influential, and traditional media outlets are

now competing with each other and with the independent bloggers, who allow audience members more power and influence in setting the media's agenda (Meraz, 2009). A following study conducted by the same researcher studied the number of unique blog posts and news articles to study intermedia issue agenda setting, which is similar to second-level agenda setting, as it deals with how sources influence the media's agenda. Comparing the number of blog posts relating to three newsworthy affairs in 2007, Meraz's (2011) study looked at how intermedia agenda setting influences the traditional newsroom on political blogs and how the flow of influence among political blogs. The timeline was established due to the popular issues that were raised in the news, including the Alberto Gonzales hearing on the NSA wiretapping, former Republican politician Larry Craig's sex scandal, and the Petraeus report. Using the blog and traditional media websites as the sampling frame, a time series analysis was used to reveal correlations among agendas from five various media outlets and sustained the intermedia agenda setting influences of political blogs in media agendas while resisting traditional media agenda setting (Meraz, 2011). Another study on intermedia agenda setting compared the ability of television, blogs, and advertising to set the agenda of the audience during the 2004 presidential election. Using three separate content analyses, the researchers coded issues from Labor Day to Election Day to determine candidate agenda. Categories for the study included demographics and ten issues mentioned by the candidates. The researchers used Pearson correlations to compare issue saliency. While television and advertisements did not show a correlation with the media agenda, blogs correlated with the media agenda. The results further suggested that the media do drive campaign agenda by telling the public what to think about (Sweetser, Cohen, & Wanta, 2008). Maier (2010) also

conducted a content analysis to see how online news differs from traditional media coverage. Studying five prominent news Web sites and comparing them to the most covered issues, as indicated by the News Coverage Index, paired-sample t-tests found that audience members who use major news Web sites as their main source of news will generally receive a mix of national and international news, similar to that of traditional media outlets (Maier, 2010).

#### Media Outlets and Agenda Setting

The agenda setting theory has also been used in relation to how it affects news outlets. An earlier study conducted by Peter and DeVreese (2003) looked at the similarities and differences of nominal and thematic agenda setting functions across various countries. A survey study in Denmark, France, Germany, the Netherlands, and the United Kingdom resulted in at least 1,000 individuals participating from each country. The researchers used a content analysis to study media agenda, seeking what topics were most salient in public broadcasting and private network news programs. Nominal public agenda diversity was measured by asking individuals what they felt the most important issue was facing the country. The number of categorical answers the respondents gave operationalized thematic public agenda diversity. The results indicated a difference in gender, as women tended to give more answers as to what the nation's problems were, indicating nominal diversity and thematic agenda diversity. Additionally, in relation to thematic agenda diversity, younger respondents indicated more categorical answers as to the most important problem facing the country. The results also showed that nominal and thematic agenda diversity occurred with more frequent newspaper reading in the majority of the countries surveyed, though the impact was significant only

in Denmark (Peter & DeVreese, 2003). Baumgartner, Boydston, and Wolfe (2009) conducted a content analysis comparing front page and inside page news coverage of *The New York Times* to study agenda setting. The researchers compared front page and inside page news of the newspaper over an eight-year span to document differences in topics, distribution of attention, and how much attention is given to a topic over a period of time. The results indicated that the front-page coverage is more skewed and is more likely to be repetitive news from the previous day compared to inside page coverage. Inside page topic choices change more frequently and do not receive as much overall attention as front-page stories. Additionally, front-page topic is more likely to contain a wider variety of topics than inside pages. Also related to this subject was a study conducted by Strömbäck and Kioussis (2010) regarding political news consumption and specific media consumption in Sweden. Using a polling firm that had collected data through computer-assisted telephone interviews, the researchers found there was not a strong link between public service news stations and issue salience compared to commercial news stations and issue salience. On the other hand, the results did determine that television is the strongest predictor of issue salience, though the researchers did note that general political attention of audience members, more than attention to specific outlets, tends to lead to an increase in issue salience. Overall, Strömbäck and Kioussis (2010) stated that media do affect perceived issue salience in determining the extent of what people think is the most important issue of the day.

### Research Questions

Though Junco, Heilberger, and Loken (2011) noted that many studies have examined generalized connections between Twitter and engaging students, they also



noted that very few of these studies look at the specific ways in which online collaboration is linked to engaging these students; therefore, research questions were created for this study. These research questions (See Appendix B) were based on the agenda-setting theory. To study the usage of Twitter, the research questions were created to examine the second level of agenda setting to determine attribute dimensions and the influence of news regarding the transfer of issue attributes. Therefore, questions to determine how college students use Twitter and if gender and/or social media experience affect the salience of news tweets were asked. The research will look at communication via Twitter to determine what events garner attention. Individuals use Twitter for a variety of reasons, including to share and to pursue information (Lee & Ma, 2012). As research has shown that repetitiveness of visiting social media outlets will create habitual behavior (Diddi & LaRose, 2006), this research seeks to determine if individuals who tweet frequently focus on news events rather than personal events. Media outlets seem willing to use Twitter as a way to encourage Twitter users to visit their website (Maier, 2010; Sheffer & Schultz, 2010), but Twitter has the potential, through its users, to become a massive news source itself. Additionally, attributes can have two dimensions: the cognitive element regarding the substantive characteristics of an object and an affective component concerning the tone, positive, negative, or neutral, of the characteristics in the media's or public's agenda (McCombs & Reynolds, 2009). This second level of agenda setting can offer a valuable outlook to study the influence of news on the public mind regarding not only the transfer of issues but also the transfer of attributes from the media to the audience (Lopez-Escobar et al., 1998). Yoon (1998) conducted a test of agenda setting using the World Wide Web to see if Korean students

who used Korean newspaper sites were influenced by what they read. His results found that what the Korean newspapers ranked high on their agenda correlated with the students' attitudes regarding the issues. Also, this research seeks to add to McCombs and Reynolds (2009) to see if the orientation of news that is tweeted is related to what is posted on Twitter. Also, as Mencher (2003) stated, as the media choose what information to distribute and what not to distribute, college students with Twitter accounts may, after hearing of a news event, take it upon themselves to post news information through Twitter instead of using it simply as a personal communication tool.

McCombs and Shaw (1993) reported that it is theoretically and methodologically sound to look at changing news topics to see agenda-setting correlations. Salience of the issues and attributes of the issues can be viewed as criterion variables in research relating to agenda setting to see how the issue is framed and how individuals are influenced in their perception of the issue (McCombs & Shaw, 1993). Due to Hill's (1985) study, which found that agenda setting increases when the audience has some college education, the researcher suggests that studying the topic of what college students tweet could be beneficial to the study. Hargittai and Litt (2011) found that many individuals who choose to use Twitter do so for entertainment and celebrity news more than for national or international news, including politics. Second-level agenda setting deals with issue attributes, or the reasons individuals support or oppose certain issues (Kim et al., 2012). As Lee (2010) pointed out, second-level agenda setting sees salient attributes depicted in media that then influence public perception regarding that issue attribute. In Sheaffer's (2007) study that focused on the affective component in agenda-setting and priming found that individuals use attributes, which could be positive or negative, to assist them

in making evaluations regarding the news. The more negative the news regarding a subject, the more likely individuals are to feel negatively about the subject. Also, the more the issue appears in the media, the more individuals are exposed to an evaluative tone, the more affective agenda-setting is regarding the issue. Also, Twitter allows users to share their opinions on subjects, looking at agenda setting allows me to inspect the influence of news on the audience's opinions. The second level of agenda setting assists with examining the transfer of issues from the media to public and the transfer of attribute appraisals from media to the public (Lopez-Escobar et al., 1998).

Agenda setting research among social media has only been recently studied by scholars, as Sayre, Bode, Shah, Wilcox, and Shah (2010) noted. They studied the agenda setting affects of traditional media alongside YouTube. The researchers sought to determine if individuals who posted on social media websites were reacting to traditional media news or if the media's agenda was set based on the social media website comments. The researchers noted that audience participation on sites such as YouTube and Twitter, which post information instantaneously, may have an ability to influence media agenda. They also noted a difference between various online news sources, such as blogs, Internet news, and social media websites, such as YouTube or Twitter. YouTube and Twitter are most similar to blogs, as they can be viewed as a form of self-publication for the audience. For fourteen months, the researchers tracked mentions of their issue, Proposition 8, on Google News, YouTube, and from high circulation newspapers in California and discovered a flux in agenda-setting coverage. Before the election on Proposition 8, YouTube followed the mainstream media coverage, but after the election, users of YouTube dramatically increased the number of mentions on the issue. The

researchers suggested that YouTube can be seen as a platform for individuals who feel they are not being represented in mainstream media. Additionally, Freeman and Berger (2011) pointed out that audience members are no longer seen in agenda setting as passive consumers, especially in terms of social media. They discussed the need for a time lag for the media agenda to pass to the audience agenda, but one may wonder if that is even necessary, given that Twitter allows users to comment instantaneously about issues. On the other hand, as the researchers noted and as the news value of proximity indicates, individuals are interested in what is close to them, whether that issue is close emotionally or physically. In summary, previous research suggested that media outlets are interested in garnering attention to their news feed on Twitter. More research needs to be examined regarding what news events take precedent with college students on Twitter; therefore, the following research questions were developed for the current study.

RQ1: Do college students use Twitter to communicate news?

RQ1a: What are the main topics of the news stories?

RQ1b: What are the formats of the information, facts or opinions?

RQ1c: Do students respond to personal or news organizations about news events?

The researcher seeks to determine how students format news events on Twitter.

Reese, Gundy, and Grant (2001) stated that formats focus on a certain procedure for communicating information. Althaus and Tewksbury (2002) stated that agenda-setting research has long sought to determine how influential the media's issue formatting is to an audience. Web sites, in particular, have generated interest because of the various, nonlinear ways they can be formatted (Althaus & Tewksbury, 2002). Second-level agenda setting can be utilized to study attributes and attribute salience and how the way

issues are presented by the mass media (Shoemaker & Reese, 1991). Framing can also be taken into account, as it involves moral evaluations, casual reasoning, and recommendations for solutions to problems (Weaver, 2007). On Twitter, users can post a link for further information or simply write a statement in 140 words or less, so the frame of a Twitter post has to be concise to relay information. Lee (2010) found that individuals exposed to priming for a certain issue were more likely to judge that they should act on an issue as opposed to those who were not primed. In an online panel, 1,677 participants were given a fictional scenario and three reactions to choose. The results found that reputation, secondary crisis communication, and reactions resulted in main effects of medium, while the message only had a secondary crisis communication significant main effect. Also, the more the fictional scenario used Twitter to relay public relations damage, the less negative the respondents were in newspapers and blogs. Interestingly, the researchers also found that Twitter users were more likely to share information regarding the fictional issue than bloggers or individuals who did not use social media (Schultz, Utz, & Goritz, 2011). In conclusion, research has suggested that individuals are interested in the social media network of Twitter as well as the messages that Twitter users produce. As more research needs to be gathered about how this information is presented on Twitter, the following research questions were developed for this study.

RQ2: How do college students present news on Twitter?

RQ2a: How often do college students retweet a story without add-on information (e.g., comments, @mention, etc.)?

RQ2b: How often do college students retweet a story with add-on information (e.g., comments, @mention, etc.)?

As McCombs and Shaw (1993) stated, agenda setting has evolved beyond the original intentions of the Chapel Hill experiment and merged public and media agenda at times. In the past thirty years, research has focused on the sources of media agenda, who sets the media agenda, intermedia agenda setting, and how gatekeeping has changed. Focusing on who sets the media agenda, Matthews (2009) studied a children's news program's agenda and found that the audience set the tone for the agenda of the media program. For this study, the researcher did not want to set limits on demographic material and chose to focus on agenda-setting's factor on the correlation of age and social media experience. Age was chosen because teenagers and young adults are more likely to use the social media website Twitter than older adults. Petrina, Feng, and Kim (2008) stated that teenagers often are more sophisticated than older adults when using newer technologies and feel more freedom to express themselves using new devices. Adults between the ages of 25 and 65 are less confident when using new technologies but are likely to use trial and error when attempting to master them. Individuals over the age of 65, however, feel anxious and threatened by new technologies and often try to find ways to redesign their lives so they will not have to use them (Petrina et al., 2008). Other research has found that when agenda setting correlated with civic awareness among adolescents, the youth were more interested in political parties (Kiouisis, McDevitt, & Wu, 2006).

Coleman and McCombs (2007) conducted a public opinion survey in Louisiana among 1,023 adults and a content analysis related on state newspapers with the largest circulations to determine first-level agenda setting among individuals based on age. They determined that younger generations of individuals, age 18-34, did use traditional media

less than individuals between the ages of 35 and 54. Additionally, McLeod, Becker, and Byrnes (1974) conducted personal interviews using a systematic, probability sample drawn from voter registration lists to determine a relationship between age and agenda setting. A zero-order correlation between content agenda and perceived issue salience provided support among individuals older than the age of 25. Also, the research found that the two most least emphasized issues in the media content received above average rankings of importance in all age groups. Therefore, the researchers found no overall newspaper agenda-setting effect (McLeod et al., 1974).

Jones (2002) determined that college students use the Internet in their daily routine. Conducting a survey of more than 2,000 students from 27 universities, the research indicated that 42% of students use the Internet to communicate socially, though a year later, Lenhart, Purcell, Smith, and Zickuhr (2010) discovered that 72% of individuals age 18-29 use social networking sites, compared to the 39% of individuals over the age of 30 who say they use social networking sites. Additionally, young adults age 18-29 are leading the way in Twitter usage with one-third of individuals in that age group reading Twitter status updates or posting information themselves. More specifically, the study found that 37% of 18-24 year olds, 25% of individuals 25-29, 22% of individuals 30-49, 9% of individuals 50-64, and 4% of individuals over the age of 65 used Twitter or another status-updating website. The data was collected from a survey issued in 2009, which included more than 2,200 adults (Lenhart et al., 2010). In relation to brand retention, Ragas and Roberts (2009), found that, collectively, age, which was divided by individuals under the age of 25 and those over the age of 25, did not play a factor regarding branding. The researchers conducted a public opinion survey with

Chipotle ads to determine which were more influential, brand community agenda ads or news releases. The data revealed a positive relationship, regardless of age, with the attribute agenda of the brand (Ragas & Roberts, 2009). In summary, previous research has suggested that age plays a role in how often individuals use and respond to social media. As more research needs to be found regarding age in relation to how often and what one tweets about, the following research questions were developed for the current study.

RQ3: Does the user's age or college classification affect the frequency of Twitter usage?

RQ3a: Does the user's age or college classification affect the frequency of Twitter usage in relation to number of tweets?

RQ3b: Does the user's age or college classification affect the frequency of Twitter usage in relation to the number of retweets?

RQ3c: Does the user's age or college classification affect the frequency of Twitter usage in relation to add-on information?

RQ3d: Does the user's age or college classification affect the content of information?

Yoon (1998) found in his agenda-setting study that the individuals who spent more time on the Internet were more likely to reflect the media's agenda than those who spent less time online. Kim et al. (2012) also pointed out that the more individuals are exposed to certain issues and the more recent they are exposed to issues may determine how easily that information is retrieved from memory. It is prudent, then, to look at social media experience, where individuals may relay or receive information that they, in turn,



also want to discuss. As media cannot report on every news instance, but instead must pick and choose (McCombs & Reynolds, 2009), individuals may decide to post tweets characteristic of the media's agenda or information that may be part of the audience-driven agenda (Uscinski, 2009). In conclusion, the research previously discussed noted that how often one uses a website online could affect how one receives and relays information. However, more information needs to be gathered relating to one's social media experience, defined by how long one had been on Twitter, which prompted the following research questions to be developed.

RQ4: Does the user's social media experience affect the frequency of Twitter usage?

RQ4a: Does the user's social media experience affect the frequency of Twitter usage in relation to number of tweets?

RQ4b: Does the user's social media experience affect the frequency of Twitter usage in relation to the number of retweets?

RQ4c: Does the user's social media experience affect the frequency of Twitter usage in relation to add-on information?

RQ4d: Does the user's social media experience affect the content of information?

Previous research has stated the majority of the news the audience receives is obtained through mass media channels, and the audience's attitude is formed through knowledge that other individuals are reacting to the same issues they are receiving information about through media outlets (Shaw, 1979). In relation to social media, Hughes, Rowe, Batey, and Lee (2011) found that older, less sociable individuals are more likely to use Twitter and that individuals may use Twitter more to gather information

relevant to their own or study (Hughes et al., 2011). Additionally, in a public opinion survey regarding branding, Ragas and Roberts (2009) determined that neighbors and colleagues are more influential than media sources. Sheffer and Schultz (2010) found that general assignment reporters did use social media to look for story ideas, too. Also, Lariscy, Avery, Sweetser, and Howes (2009) found journalists view social media differently. Using telephone interviews with journalists from publications such as *The Wall Street Journal* and *Business Week*, out of the 200 business reporters interviewed, only 37 identified social media as a tool to use to find information regarding a story. Lariscy et al. (2009) suggested that journalists are not using social media frequently to enact agenda-setting functions. Therefore, previous research suggested individuals use social media websites as a way to be social. However, more research needs to be examined regarding why college students use Twitter to distribute information; therefore, the following research questions were developed for the study.

RQ5: Why do college students use Twitter to distribute information?

RQ5a: How do students feel when their tweet is retweeted?

RQ5b: Why do students discuss news events on Twitter?

Twitter is a social media outlet with more than 200 million users who write more than one billion tweets each week (Picard, 2011). It was chosen for this study because of its growth; its ability to allow users to communicate information instantly through words, pictures, or links; and because individuals themselves are not the only ones who use Twitter, as media organizations have begun to use the social media outlet as well. Agenda setting was used in this study because of its dual roles of seeing the media as able to create the public's agenda and because of its "audience-driven" framework, which

focuses more on the audience's role to influence the media agenda (Uscinski, 2009).

Research has shown that media do have an agenda, that the issues that are salient in the public eye are the ones audiences view as the most important, and that individuals learn what is important through the media (Iyengar & Kinder, 1987; McCombs & Shaw, 1972; Son & Weaver, 2005). Additionally, on the other side, Funkhouser (1973) found that what the public felt was important was often covered more frequently than the media, and Sheaffer (2007) discovered that negative salient topics resulted in negative feelings from the audience. The research questions will focus on what is discussed on Twitter, how the information is presented, and if demographics play a role in tweets from college students. The method section will delve into how this will be accomplished using a content analysis of tweets and a focus group.

## CHAPTER III

### METHODOLOGY

#### Procedure

The goal of this research was to analyze Twitter as an instantaneous message social media website by determining how users apply Twitter as a personal communicational tool and what information they choose to relay to their followers. Content analysis can be used in agenda setting studies by looking at relevant media content to determine the importance of issues. In this case of this particular research, as it deals with the audience, an examination of the correlation between audience agenda and media agenda was examined. This research method can also assist in determining what is tweeted about the most by college students. The communication through Twitter can be assigned numeric values, and relationships among the variables can be determined using statistical methods. Through content analysis, we can use this methodology to describe communication among Twitter and draw inferences from the context of the communication. Also, content analysis can be replicated, and researchers interested in social media studies can use this research as a basis for future studies (Riffe, Lacy, & Fico, 2005). The method for this research followed McMillan's (2000) five-step process in researching online material for a content analysis. According to McMillan, a researcher first needs to formulate a research question, which was covered in the literature review. Secondly, the researcher will select a sample. The size and range of the sample depends on the goals of the research, though McMillan did warn that drawing samples from online material is one of the more difficult parts of conducting a content analysis on the Web, as information online can be removed or changed with the touch of a keyboard. Thirdly,

categories must be defined. Fourth, coders are trained to code the content, and reliability is established. Lastly, the data is collected, analyzed, and interpreted. The data analysis will not particularly change based on a Web study. In her own study, McMillan identified nineteen studies that focused on content analysis and the World Wide Web. Following the five steps described above, the findings revealed that the majority of the content analyses were descriptive in nature, as well as sampling frames often were based on online Websites in a particular category. Nine of the nineteen sites analyzed all the sites in the sampling frame, and the sample size of those studies that used sampling ranged from three to 2,865, though the average was between 50 and 500 sites. Many of the articles focused on a time period when defining categories, most likely because of the necessity of collecting the data. Most studies ranged in time from one to two months. For coding categories, there was no standard list of categories that emerged from McMillan's research, though many studies used structural features of the Web site, such as links or pictures, as coding units. Many of the studies used Holsti's reliability formula, Spearman-Brown Prophecy Formula, and Scott's Pi to determine reliability, and the number of coders ranged from two to twelve. Finally, McMillan stated that the analyzing and interpreting of the data was similar to offline content analyses, though many of the key findings were descriptive in nature. Many studies looked at diversity in Websites or the commercialization of Websites. Also, some studies looked at the Web as an interactive environment for audience members (McMillan, 2000).

### Sample

For this study, theoretical work has already been discussed and research questions have been posted in the literature review. Sampling, as noted earlier, would be

problematic with online material, as it can be changed or removed without warning. However, the researcher saved the tweets in a word document form, where the words and user name are visible, links are still active and able to be accessed. As the research questions dealt with which issues are salient to the Twitter audience, tweets were sampled. More specifically, tweets from undergraduate and graduate college students from four universities across the nation, per IRB approval beforehand from each university where students are participating, were surveyed. Instructors who agreed to let their classes participate in the study distributed a questionnaire in June 2012 to their students. The questionnaire assisted in determining if they have a personal Twitter account, how often they believe they tweet on average, why they use Twitter, and if they would allow the researcher to follow them on Twitter for this study. Each university received 100 questionnaires, at the instructors request, and out of the 100 questionnaires sent, 14 individuals from the western university, 33 from the eastern university, 31 from the northern university, and 40 from the southern university had Twitter and agreed to participate, giving the researcher a total of 118 participants to follow on Twitter. Out of those 118 participants, twenty-nine were 18 years old, sixteen were 19 years old, twenty-eight were 20 years old, thirty were 21 years old, four were 22 years old, four were 23 years old, one was 24 years old, one was 36 years old, one was 27 years old, one was 28 years old, one was 31 years old, and two were 32 years old. Unfortunately, the graduate students were highly underrepresented in the sample, with only four of the students participating in the study being graduate students; the rest were undergraduates. However, graduate students at all four universities were given the opportunity to participate. Additionally, there were 47 males and 71 females in the study. The

researcher created a Twitter account for each university and followed the students from October 9, 2012, to November 7, 2012, which was the day after the presidential election. During that time, topics that made national news and were discussed by the students on Twitter included the presidential election, Hurricane Sandy hitting the northeast, and various sporting events, most dominantly national and collegiate football games. The researcher collected tweets in a word document that included live links, pictures, and conversations between the participants. Only tweets that had news significance or included characters about a news event were included in the study. After the data was collected, 1,012 tweets had a news factor to them. As McMillan (2000) found, the average number of samples chosen for studies dealing with content analysis and the Web ranged from 50 to 500 sites. Additionally, McMillan (2000) noted that a problem area in content analysis as it applies to online studies includes data collection and coding. First, the data must be collected in a short amount of time so that coders are categorizing the same content. Data was collected on a daily basis to ensure that it did not disappear, as tweets do not stay visible indefinitely. Additionally, the date and time of collection was noted to ensure the timeframe of analysis is correct.

Interval variables that were studied included age of Twitter user, how many tweets the user wrote on average, how long the Twitter user had used Twitter, how many followers the Twitter user had, and how many accounts the Twitter user followed. Nominal variables that were studied included if the tweet had personal significance or news significance, if the event was something the user witnessed firsthand, if the tweet was a retweet from someone else, if the tweet was a retweet from a media source, if names of media outlets were included in the tweet, if a link was included in the tweet, if a

picture was included in the tweet, if the tweet was a response. Ordinal variables that were studied included the main topic of the tweet and whether the tweet was a fact or opinion. To answer Research Question 1, the variables that assisted included whether the tweet had personal or news significance, if the event was something the user witnessed firsthand, the main topic of the tweet, whether the tweet was a fact or opinion, if media outlets were included in the tweet, and if the tweet was a retweet. To answer Research Question 2, the variables that assisted included whether the tweet included a mention to another Twitter user, a picture, and/or a link. To answer Research Question 3, the variables that assisted included the Twitter user's age and determining how many tweets the user wrote on average. To answer Research Question 4, the variables that assisted included how often the user said he or she had used Twitter, how many followers he or she had, and how many accounts the user followed. To answer Research Question 5, a focus group was used.

For the unit of analysis, McMillan (2000) stressed a need for standardization of studying Web sites with content analysis, as some studies would focus on simply a "Web site" and not define if that was classified as a home page or the first three levels of site hierarchy or something different. For Twitter, the unit of analysis was tweets that were taken from the college undergraduate and graduate students who agreed to participate in the study and whose tweets were visible on the researcher's home page after logging into Twitter. Once a user logs in, he or she can see the tweets of the individuals that he or she follows. Those tweets were collected daily. While in traditional media content analysis studies, conventional context units such as a column-inch or word count or time units for broadcasts were used, Twitter is a newer medium that is most adequately addressed using



individual tweets. Two coders, the researcher and an additional coder, conducted the coding of the data and split the tweets evenly in the coding process. The additional coder was trained in the objective coding categories to ensure intercoder reliability. A pretest was conducted to ensure the training for coding categories has been successful, the directions for coding the tweets were understandable, and the variables and categories were mutually exclusive and exhaustive. Ten percent of the tweets were coded in the pretest to determine intercoder reliability. The two coders used Scott's Pi and Krippendorff's Alpha to determine percentage of agreement. While they are similar, Alpha adjusts the denominator for a small sample bias, and Pi exceeds Alpha by  $(1-pi)/n$ . However, as  $n$  increases, that difference grows closer to zero. Additionally, Alpha can be used with nonnominal data, while Pi cannot. Alpha can also correct for small samples (Riffe et al., 2005). If the percentage of agreement is not at least 85%, the researcher will retrain the coders and conduct another pretest until the percentage of agreement is at least 85%. In this study, the coders conducted a pretest of 100 of the tweets taken for the study and found a reliability of at least 85% for each of the variables. In determining whether the tweet had personal or news significance and if the tweet relayed something the user saw first-hand, the reliability was 85%. For whether names of media outlets or journalists were included in the tweet, reliability was 86%. For whether the tweet was a fact or opinion, reliability was 90%. In determining whether the tweet was a response to something a media organization or journalist tweeted, reliability was 91%. For whether the tweet included a link to a news site, reliability was 92%. In finding whether the tweet was a response not to a media outlet or journalist, reliability was 93%. In determining whether the tweet was a retweet from someone else and whether or not the tweet included

a picture, reliability was 96%. In determining whether the tweet was a retweet from a news organization or someone employed with a news organization and determining the main topic of the tweet, reliability was 98%. For the Twitter user's name, age, date, how many tweets they write on an average day, gender, how often the Twitter user said he/she had used Twitter, how many followers each Twitter user had, and how many accounts the Twitter user followed, the reliability was 100%.

McMillan (2000) noted that information that is collected previously from online and is saved where it cannot be changed assists in intercoder reliability. Similarly to traditional media content analyses, the analyzing and interpretation of the data will be similar. As McMillan (2000) pointed out, research is needed in the online environment as much as any other media.

#### Coding categories

As necessary in any content analysis, definitions for each variable need to be given consideration. This particular study looked at each tweet and categorized the variables as the main subject of the tweet. The coders examined whether the Twitter user included another user in the tweet, if a link to a Website was included, or if a picture in the tweet was included. The coders also took into account demographic information such as the Twitter user's classification in college, major, and age.

A codebook, a training guide for the coders, was developed and used as an instruction manual for the coders (see Appendix A). The codebook included definitions of the variables and outline what each variable includes. Items in the codebook included the coder's ID code, the main theme of the tweet, the demographic information regarding the Twitter user, whether any link, picture, hashtag, or reference to another user was used

in the Tweet, and whether or not the Tweet was an opinion or fact. Variables included are as follows:

*Frequency of Twitter Usage.* Kim et al. (2012) advised that quantitative studies could assist in determining that the greater salience of an issue will make it more discussed by an audience. Additionally, another study found that agenda setting is more likely to occur when the media discuss an issue for a longer period of time and more frequently (Son & Weaver, 2005). Roberts, Wanta, and Dzwo (2002) stated that questions had been raised as to whether instantaneous messaging systems could be relevant to agenda-setting studies. The question that was posed in their study was how long an issue would remain salient in the audience's mind, especially regarding a source of information that could be distributed instantaneously and updated just as rapidly. Using a time series content analysis to see if the media had an agenda-setting influence on Internet discussions, the researchers reported that online coverage of controversial issues and the salience of coverage of those issues had an agenda-setting effect. Ramsden (2008) found in a small group study that individuals seem to increase their frequency of Twitter usage over time and are experimenting with what Twitter can offer to them. In general, Twitter users are not passive and will post information (Chen, Najrn, Nelson, & Chi, 2010). The average number of tweets a Twitter user wrote in a given day was examined to determine how often college students use Twitter. The average number of tweets was gathered by visiting <http://www.howoftendoyoutweet.com/> and inserting the Twitter user's name to generate the average.

*Type of News.* Type of news is based on Tewksbury's (2006) study on individuals who search the Web for news information. Comparing how individuals who received

their news via the Internet and individuals who received their news traditionally, Tewksbury separated his content of news into 17 variables: sports, business and money, arts and entertainment, features, U.S. national, technology and science, world, politics, weather, health, opinion and editorial, state and local, obituary, other news, interactive, advertisement, and other, which was used to categorize type of news. In his study, Tewksbury found that less than half of his participants who accessed news online viewed a public affairs news topic at least once (Tewksbury, 2006). Kwak, Lee, Park, and Moon (2010) found that 85% trending topics on Twitter are topics that are either headline news or persistent news, which would indicate agenda setting.

*Format of News.* As Shoemaker and Reese (1991) stated, second level of agenda setting can be utilized to study attributes and attribute salience, such as the way issues are presented, in this case on Twitter, to assist with determining if the media are telling individuals how to process certain issues (McCombs & Estrada, 1997). Muralidharan, Rasmussen, Patterson, and Shaw (2011) conducted a content analysis on Facebook and Twitter posts after the Haiti earthquake in 2010. The results found that nonprofit organizations used positive emotions more to encourage individuals to update while media used more negative posts. Additionally, nonprofit organizations and media both used media links to share episodic and thematic frames on Twitter, as with 140 characters, only short spurts of information can be written. Therefore, the format of news studied emotion in a Twitter post and if multimedia aspects, such as links or pictures, are included.

*Personal factors.* Based on the Coleman and McCombs (2007) study, which utilized Spearman's rho and Pearson's r to compare percentages of each age group with

issues of the media agenda, personal factors including age and media experience were studied to see if they played a role in the discussion of topics on Twitter based on the comparison between content agenda and perceived issue salience McLeod et al. (1974) conducted in their study. Age was examined to determine if it affected the frequency of usage, the source of information, the content of information, the distribution of information on Twitter. Also, the length of time a tweeter had used Twitter, how many followers the Twitter user had and how many Twitter accounts they followed was taken into consideration as well. McCombs and Reynolds (2009) found that the more individuals use a particular news media, the more likely that media was able to have agenda-setting effects on the sources.

#### Focus Group

A focus group was conducted to assist with the research. The focus group consisted of ten of the participants involved in the research study from the southern university. In order to assist with the research questions posted, participants were asked why they used Twitter, how they felt when their tweet was retweeted, why they discuss news events on Twitter, how they check and update Twitter, if they tweet more now than they did a year ago, what they're interested in reading about on Twitter, who they follow, why they put add-on information in their tweets, why they retweet, and when and why they respond to tweets. The participants' ages ranged from 19 to 32 and included six males and four females. The focus group met for 45 minutes for the discussion and was recorded. The participants all signed consent forms allowing the discussion of their answers. Open-ended questions related to their decisions regarding what to post on Twitter and what to retweet as well as whom they follow on Twitter. Whittingham et al.

(2008) stated that researchers should ask participants to convey their opinions regarding “how” and “why” questions to assist in determining attitudes, beliefs, feelings, and group dynamics. In the case of this study, a focus group of university students was gathered and asked what they think about social media in general and Twitter specifically, why they tweet what they do tweet, and how they feel when they discover their information has been retweeted by someone else or commented on by someone else.

The focus group analysis was based on the study conducted by Lim et al. (2011), which offers a framework regarding idioculture characteristics, which can be seen in social media. Idioculture refers to distinctive cultural foundations that characterize a certain group of individuals. Looking at crowd computing systems, which identifies individuals who are gathered with one purpose, to share information in this research, but the individuals do not have to be gathered at the same time. Lim et al. (2011) suggested that research should be strengthened in the area of social media research to determine the basic characteristics of the audience, to see if users can be seen as interactive agents in the crowd, and to determine how a user of social media thinks about news. The literature review discussed the origins and variations of agenda setting, including first- and second-level agenda setting, priming, and framing, as well as studies conducted by agenda-setting scholars, which will assist in the shaping of this research. Lim et al. (2011) suggested using EDSM, or event-driven social media. In the case of their research, it was used for text messages, but the researcher feels this could be easily translated to this study as many individuals update their Twitter or check their followers’ tweets using a cell phone device. EDSM moves from the user to a messaging system to the messaging gateway to a database server to a media server to public display. The two main roles of

EDSM are to stimulate interaction within a group of users and to share information among a large audience. In the study conducted by Lim et al. (2011), the participants were asked why they sent particular messages and how they feel when the messages were shared. The researchers studied the interview data and derived user experience based on the participants' answers (Lim et al., 2011).

A content analysis studying tweets used by college students for a designated time period and a focus group was used to assist in answering the research questions. Content analysis examines the correlation between public agenda and media agenda and therefore was beneficial for this study. Coding categories include frequency of Twitter usage, format of news, and personal factors. The results section will divulge the findings and discussion of how these categories assisted in answering the research questions and focus group section.

## CHAPTER IV

## RESULTS

## Personal Relevance of News

The first set of research questions (RQ1) explored how students use Twitter to communicate news, including main topics, formats, and sources.

*RQ1: Do college students use Twitter to communicate news?*

College students who participated in this study did use Twitter to communicate various news events relating to a variety of events, local and national. The tweets that were used in this study included 1,012 tweets relating to news events that the participants tweeted about between October 9, 2012, and November 7, 2012. By looking at frequencies and percentages (See Table 1), the majority of students who tweet about news events state information relevant to the news itself more than how it relates to their personal lives. Out of the news tweets sampled, 647 (63.9%) tweets referred had news significance, and 353 (34.9%) related to a news event that only had relevance to one's personal life.

Table 1

*News Significance and Personal Significance in Tweets*

Variables	Frequency	Percent	Valid Percent	Cumulative Percent
1. News significance	647	63.9	63.9	63.9
2. Personal significance	353	34.9	34.9	98.8



Table 1 (continued).

Variables	Frequency	Percent	Valid Percent	Cumulative Percent
3. Unable to determine	12	1.2	1.2	100.0
Total	1012	100.0	100.0	

The researcher also looked at gender with chi-square and found that the number of males and females who tweeted news significance over personal significance was fairly consistent with the overall results. 68.3% (395) of the male tweets were about news significance, and 30.6% of their tweets related specifically to personal information. Fifty-eight point one percent of the female tweets related to news significance, while 40.6% related to personal significance (See Table 2). The relationship between these variables was not significant  $\chi^2 (1) = 2.18, p = .140$  (an alpha level of .05 was adopted for this and all subsequent statistical tests).

Table 2

*News Significance and Personal Significance in Tweets in Relation to Gender*

Variables	Male (N = 578)	Female (N = 434)
1. Personal significance	30.6% (N = 177)	40.6% (N = 176)
2. News significance	68.3% (N = 395)	58.1% (N = 252)

Table 2 (continued).

Variables	Male (N = 578)	Female (N = 434)
3. Unable to tell	1% (N = 6)	1.4% (N = 6)

The researcher also looked at the differences between the schools using chi-square and found that three of the universities that participated in the study – the northern, eastern, and southern – tweeted more relating to news significance, but the western university’s news event tweets largely had a personal significance to them (79.5%, 35 tweets). The northern university had 56.0% tweets relating to news significance; the eastern university had 53.9% of tweets relating to news significance; and the southern university had the largest news significance tweets at 70.4% (See Table 3). A chi-square test was performed to determine if geographic region differed on whether the participants produced more news significant tweets or personal significant tweets. The relationship between these variables was significant  $\chi^2(3) = 54.7, p = .001$ .

*RQ1a: What are the main topics of the news stories?*

Fifteen topics of news significance were ranked, and out of the fifteen topics, the students tweeted about twelve of them. Overall, the students involved in the project tweeted the most about sports events. Out of the news tweets collected, 441 tweets (43.6%) were about sports. The second highest tweeting topic related to politics, with 273 tweets (27%) relating to that particular topic. The third highest tweeting topic at 146 tweets (14.4%) was arts and entertainment. The rest of the topics related to state and local

Table 3

*News Significance and Personal Significance in Tweets in Relation to Geographic Location*

Variables	Western University (N=44)	Northern University (N = 168)	Eastern University (N = 115)	Southern University (N = 605)
1. **Personal significance	79.5% (N = 35)	41.1% (N = 69)	43.5% (N = 50)	29.1% (N = 199)
2. **News significance	20.5% (N = 9)	56.0% (N = 94)	53.9% (N = 62)	70.4% (N = 482)
3. **Unable to determine	0.0% (N = 0)	3.0% (N = 5)	2.6% (N = 3)	0.6% (N = 4)

\*\*  $p < .001$

news (69 tweets, 6.8%), weather (35 tweets, 3.5%), technology and science (16 tweets, 1.6%), US national news (8 tweets, .8%), world news (7 tweets, .7%), health (7 tweets, .7%), other (7 tweets, .7%), business and money (2 tweets, .2%), and features (1 tweet, .1%) (See Table 4). Topics that were not discussed in tweets studied included opinion and editorial, obituary, and advertisement.

Using chi-square (See Table 5), the researcher also considered gender and main topic. The researcher variables with a zero cell because respondents did not pick these variables. The relationship between these variables was not significant  $\chi^2(8) = 14.6$ ,  $p = .067$ . For sports topics, nearly double the male tweets (54.2%, 313 tweets) related to sports over female tweets (29.5%, 128 tweets). For business and money, the count was even at one tweet each for male and female. For arts and entertainment, double the

Table 4

*Main Topic of Tweets*

Topic	Frequency	Percent
1. Sports	441	43.6
2. Politics	273	27.0
3. Arts and entertainment	146	14.4
4. State news	69	6.8
5. Weather	35	3.5
6. Technology and science	16	1.6
7. National news	8	.8
8. World news	7	.7
9. Other	7	.7
10. Health	7	.7
11. Business and money	2	.2
12. Features	1	.1
Total	1012	100.0

female tweets (20.0%, 80 tweets) related to this topic over male tweets (10.2%, 59 tweets). Only one male tweeted about features; no females tweeted about features. For U.S. national news, the results were even (4 male tweets, 0.7%; 4 female tweets, 0.9%), and technology and science was about even as well (9 male tweets, 1.6%; 7 female tweets, 1.6%). In world news, 0.3% of the male tweets (2 male tweets) and 1.2% of the

female tweets (5 female tweets) related to this subject. In politics, the results were nearly even with 24.7% of the male tweets (143 tweets) and 30.0% of the female tweets (130 tweets) relating o this subject. In weather, 2.4% of the male tweets (14 tweets) and 4.8% of the female tweets (21 tweets) related to this topic. Results were fairly even in the health category, with 0.5% of the male tweets (3 tweets) and 0.9% of the female tweets (4 tweets) relating to this subject. 4.5% of the male tweets (26 tweets) and 9.9% of the female tweets (43 tweets) related to local news, and, lastly, 0.5% of the male tweets (3 tweets) and 0.9% of the female tweets (4 tweets) related to other.

Table 5

*Main Topic and Gender*

Variables	Male (N = 578)	Female (N = 434)
1. Sports	54.2% (N = 313)	29.5% (N = 128)
2. Politics	24.7% (N = 143)	30.0% (N= 130)
3. Arts and entertainment	10.2% (N = 59)	20.0% (N = 87)
4. State and local	4.5% (N = 26)	9.9% (N = 43)
5. Weather	2.4% (N = 14)	4.8% (N = 21)
6. Technology and science	1.6% (N = 9)	1.6% (N = 7)
7. World news	0.3% (N = 2)	1.2% (N = 5)
8. Health	0.5% (N = 3)	0.9% (N = 4)
9. Other	0.5% (N = 3)	0.9% (N = 4)

Looking at the main topic in relation to what were the top subjects discussed on Twitter by the various universities included in the study, the researcher used chi-square and found the western university tweeted the most about arts and entertainment (56.8% of the tweets), and the other two top subjects, state and local news (13.6%) and other (9.1%) trailed greatly behind the main topic. Students involved in the project from the northern university tweeted most about sports (39.9%), followed closely behind politics (32.7%) and arts and entertainment (11.3%). The eastern university tweeted the most about politics (31.3%), followed by sports and arts and entertainment, which both registered at 21.7%. The southern university tweeted the most about sports (50.5%), followed by politics (26.1%) and arts and entertainment (11.2%) (See Table 6). The relationship between these variables was significant  $\chi^2(21) = 142, p = .001$ . The researcher variables with a zero cell because respondents did not pick these variables.

Table 6

*Main Topic and Geographic Regions*

Variables	Western University (N=44)	Northern University (N = 168)	Eastern University (N = 115)	Southern University (N = 605)
1. Sports**	6.8% (N = 3)	39.9% (N = 67)	21.7% (N = 25)	50.5% (N = 346)
2. Arts and entertainment**	56.8% (N = 25)	11.3% (N = 19)	21.7% (N = 25)	11.2% (N = 77)
3. U.S. national**	0.0% (N = 0)	0.6% (N = 1)	0.0% (N = 0)	1.0% (N = 7)

Table 6 (continued).

Variables	Western University (N=44)	Northern University (N = 168)	Eastern University (N = 115)	Southern University (N = 605)
4. Technology and science**	4.5% (N = 2)	2.4% (N = 4)	2.6% (N = 3)	1.0% (N = 7)
5. Politics**	6.8% (N = 3)	32.7% (N = 55)	31.3% (N = 36)	26.1% (N = 179)
6. Weather**	2.3% (N = 1)	2.4% (N = 4)	5.2% (N = 6)	3.5% (N = 24)
8. State and local**	13.6% (N = 6)	8.9% (N = 15)	13.0% (N = 15)	4.8% (N = 33)
9. Other**	9.1% (N = 4)	0.6% (N = 1)	0.0% (N = 0)	0.3% (N = 2)

\*\*  $p < .001$

*RQ1b: What are the formats of the information, facts or opinions?*

In Table 7 (See Table 7), the results indicate that the majority of students tweet more opinions than facts. Five hundred fifty-one tweets (54.4%) indicated opinionated information compared to the 352 tweets (34.8%) of tweets that were only about factual information. However, 109 tweets (10.8%) were unable to be determined as fact or opinion.

Using chi-square results, the researcher also considered gender for this research question and found that, consistent with the overall results, more male tweets related to opinion (52.9%, 306 tweets), and more female tweets related to opinionated information (56.5%, 245 tweets)

Table 7

*Facts and Opinions in Tweets*

Variables	Frequency	Percent	Valid Percent	Cumulative Percent
1. Fact	352	34.8	34.8	34.8
2. Opinion	551	54.4	54.4	89.2
3. Unable to determine	109	10.8	10.8	100.0
Total	1012	100.0	100.0	

(See Table 8). The relationship between these variables was not significant  $\chi^2 (1) = .806$ ,  $p = .369$ .

Table 8

*Fact and Opinions with Gender*

Variables	Male (N=578)	Female (N = 434)
1. Fact	37.9% (N = 219)	30.6% (N = 133)
2. Opinion	52.9% (N = 306)	56.5% (N = 245)
3. Unable to determine	9.2% (N = 53)	12.9% (N = 56)

Comparing schools with chi-square results, all schools' participants tweeted more opinions than facts. The western university's participants tweeted 54.5% opinionated information, the northern university tweeted 54.8% opinionated information, the eastern



university tweeted 50.4% opinionated information, and the southern university tweeted 55.0% opinionated information (See Table 9). The relationship between these variables was significant  $\chi^2 (3) = 7.92, p = .048$ .

Table 9

*Facts and Opinions with Geographic Regions*

Variables	Western University (N = 44)	Northern University (N = 168)	Eastern University (N = 115)	Southern University (N = 605)
1. Fact*	43.2% (N = 19)	32.7% (N = 55)	14.8% (N = 17)	38.1% (N = 261)
2. Opinion*	54.5% (N = 24)	54.8% (N = 92)	50.4% (N = 58)	55.0% (N = 377)
3. Unable to determine*	2.3% (N = 1)	12.5% (N = 21)	34.8% (N = 40)	6.9% (N = 47)

\* $p < .05$

*RQ1c: Do students respond to personal or news organizations about news events?*

Relating to students' responses to other tweets, out of the data collected, only 154 (15.2%) tweets were a response at all (See Table 11). Out of the responses, more responses were generated toward a media outlet or journalist than a personal colleague. One hundred nine tweets (10.8%) were responses to media outlets or journalists, and 45 tweets (4.4%) were a response to something a non-media organization/journalist tweeted.

The researcher also considered gender using the chi-square results with this research question and found that, consistent with the overall results, only 2.9% of the male tweets (17 tweets) and 6.5% of the female tweets (28) were responses to personal

Table 10

*Responses in Tweets**Response of tweets to non-media organizations/journalists*

Variables	Frequency	Percent	Valid Percent	Cumulative Percent
1. Yes	45	4.4	4.4	4.4
2. No	964	95.3	95.3	99.7
3. Unable to determine	3	.3	.3	100.0
Total	1012	100.0	100.0	

*Response of tweets to media organizations/journalists*

Variables	Frequency	Percent	Valid Percent	Cumulative Percent
1. Yes	109	10.8	10.8	10.8
2. No	899	88.8	88.8	99.6
3. Unable to determine	4	.4	.4	100.0
Total	1012	100.0	100.0	

sources. For responses to media, 13% of the male tweets (75) and 7.8% of the female tweets (34) were responses to media outlets (See Table 11). The relationship between gender and response to personal sources was not significant  $\chi^2(1) = 1.64, p = .200$ . The

relationship between gender and response to media sources also was not significant  $\chi^2 (1) = 1.33, p = .249$ .

Consistent with previous results, none of the schools had a majority of tweets that were responses to personal or media sources using chi-square results. The western university's non-response rate was 90.9%, the northern university was at 93.5%, the eastern university at 87.0%, and the southern university was at 97.4%. For responses to media, the western university's participants did not respond to media, the northern

Table 11

*Response of Tweets in Comparison to Gender*

Variables	Male (N=578)	Female (N=434)
1. Response to personal source	2.9% (N = 17)	6.5% (N = 28)
2. Not a response	96.7% (N = 559)	93.3% (N = 405)
3. Unable to determine	0.3% (N = 2)	0.2% (N = 1)

  

Variables	Male (N=578)	Female (N=434)
1. Response to media	13.0% (N = 75)	7.8% (N = 34)
2. Not a response	86.7% (N = 501)	91.7% (N = 398)
3. Unable to determine	0.3% (N = 2)	0.5% (N = 2)

university's participants responded to media at an 18.5% rate, the eastern university's participants responded to media at an 18.3%, and the southern university's participants

responded to media at an 8.3% rate (See Table 12). The results for geographical region and response to personal sources was significant at  $\chi^2(3) = 8.44, p = .038$ . Also, the results for geographical region and response to media sources was significant at  $\chi^2(3) = 23.6, p = .001$ .

Table 12

*Response of Tweets in Comparison to Geographic Regions*

Variables	Western University (N = 44)	Northern University (N = 168)	Eastern University (N = 115)	Southern University (N = 605)
1. Response to personal source*	9.1% (N = 4)	4.8% (N = 8)	13.0% (N = 15)	2.6% (N = 18)
2. Not a response to personal source*	90.9% (N = 40)	93.5% (N = 157)	87.0% (N = 100)	97.4% (N = 667)
3. Unable to determine*	0.0% (N = 0)	1.8% (N = 3)	0.0% (N = 0)	0.0% (N = 0)
1. Response to media**	0.0% (N = 0)	18.5% (N = 31)	18.3% (N = 21)	8.3% (N = 57)
2. Not response to media**	100% (N = 44)	79.8% (N = 134)	80.9% (N = 93)	91.7% (N = 628)

Table 12 (continued).

Variables	Western University (N = 44)	Northern University (N = 168)	Eastern University (N = 115)	Southern University (N = 605)
3. Unable to determine**	0.0% (N = 0)	1.8% (N = 3)	0.9% (N = 1)	0.0% (N = 0)

\* $p < .05$ , \*\* $p < .001$

### Retweet and Add-on Information

#### *RQ2: How do college students present news on Twitter?*

The second set of research questions (RQ2) explored how students use Twitter to present information with retweets and add-on information. In this study, the researcher sought to determine how often students retweeted news information and whether that article had a link to a website, a picture, or mentioned a news outlet or journalist. For the most part, college students in the study primarily tweeted original tweets over retweets in regards to presenting news on the social media website.

#### *RQ2a: How often do college students retweet a story with add-on information?*

Out of the tweets collected, slightly less than half (433, 42.8%) were retweeted with news information, with 57.2% (479) being original tweets regarding news events (See Table 13). Additionally, of the 433 tweets that were retweets, 20.7% of them (209) were retweets from a news organization or someone employed with a news organization. One hundred thirty-three tweets (13.1%) included one or more names of media organizations or individuals employed with a news organization. 13.2% (134) of the

tweets included a link to a media outlet, while 86.8% (878) did not, and only 8.6% (87) included a picture related to the news discussed.

Table 13

*Retweets and Add-on Information Included in Tweets*

Variables	Frequency	Percent
1. Retweet	433	42.8
2. Retweet from media	209	20.7
3. Name of media outlet included	133	13.1
4. Link included	134	13.2
5. Picture included	87	8.6

The researcher also considered gender using chi-square results for this research question and found that, consistent with this study's previous findings, 82.4% of male tweets (476 tweets) and 92.6% of female tweets (402 tweets) did not include a link with the tweet. The researcher also found consistent results regarding gender and if a picture was included in a link. Only 7.4% of the male tweets (43 tweets) and 10.1% of the female tweets (44 tweets) included a picture with the tweet. Turning to whether or not the names of media outlets were included in the tweet, the results indicated that only 16.1% of the male tweets (93 tweets) and 9.2% of the female tweets (40 tweets) included the names of media outlets (See Table 14). The relationship between gender and links was significant  $\chi^2(1) = 5.53, p = .019$ . The relationship between gender and pictures was not significant

$\chi^2(1) = .579, p = .447$ . The relationship between gender and names of media outlets was not significant  $\chi^2(1) = 2.24, p = .134$ .

Table 14

*Retweets and Add-on Information in Regards to Gender*

Variables	Male (N=578)	Female (N=434)
1. Link included*	17.6% (N = 102)	7.4% (N = 32)
2. Picture included	7.4% (N = 43)	10.1% (N = 44)
3. Media names included	16.1% (N = 93)	9.2% (N = 40)

\*  $p < .05$

Comparing schools using chi-square results, participants at the western university retweeted a story 22.7% of the time, participants at the northern university retweeted a story 37.5% of the time, participants at the eastern university retweeted 44.3% of the time, and participants at the southern university retweeted 45.1% of the time. The western university's students did not retweet information from a news organization. Students from the northern university retweeted information from a news organization 20.8% of the time, while the eastern university's participants did so 7.8% of the time, and the southern university's participants did so 24.1% of the time. Regarding names of media outlets, 2.3% of the western university's participants' tweets included names of media outlets, 21.4% of the northern university's did so; 13.0% of the eastern university's tweets did so, and 11.8% of the southern university's did. Participants at the western

university included links in 4.5% of their tweets; participants at the northern university, 14.3%; participants at the eastern university, 8.7%, and participants at the southern university, 14.3%. Lastly, regarding whether a picture was included in the tweet, the western university's participants included a picture in their tweets 27.3% of the time, the northern university at 6.0% of the time, the eastern university at 14.8% of the time, and the southern university at 7.0% of the time (See Table 15). The relationship between university and retweets in general was significant  $\chi^2(3) = 13.2, p = .004$ . The relationship between university and retweets from news organizations was significant  $\chi^2(3) = 33.0, p = .001$ . The relationship between university and names of media outlets included in the tweets was significant  $\chi^2(3) = 17.2, p = .001$ . The relationship between university and links was not significant  $\chi^2(3) = 6.07, p = .108$ . The relationship between university and pictures was significant  $\chi^2(3) = 23.8, p = .001$ .

Table 15

*Retweets and Add-on Information in Regards to Geographic Region*

Variables	Western University (N = 44)	Northern University (N = 168)	Eastern University (N = 115)	Southern University (N = 605)
1. Retweet*	22.7% (N = 10)	37.5% (N = 63)	44.3% (N = 51)	45.1% (N = 309)
2. Retweet from news organizations**	0.0% (N = 0)	20.8% (N = 35)	7.8% (N = 9)	24.1% (N = 165)



Table 15 (continued).

Variables	Western University (N = 44)	Northern University (N = 168)	Eastern University (N = 115)	Southern University (N = 605)
3. Name of media outlet included**	2.3% (N = 1)	21.4% (N = 36)	13.0% (N = 15)	11.8% (N = 81)
4. Link included	4.5% (N = 2)	14.3% (N = 24)	8.7% (N = 10)	14.3% (N = 98)
5. Picture included**	27.3% (N = 12)	6.0% (N = 10)	14.8% (N = 17)	7.0% (N = 48)

\* $p < .05$ , \*\* $p < .001$

### Impact of User Age

*RQ3: Does the user's age affect the frequency of Twitter usage?*

The third set of research questions (RQ3) sought to determine if age played a factor in communication on Twitter. Correlations were considered, looking at age, average number of tweets, average number of retweets, average number of retweets from news organizations, links, and pictures. The significant negative correlation ( $-r = .270$ ,  $p < .001$ ) for age and average number of tweets indicates that younger college students tweet more than older college students. The significant negative correlation ( $-r = .148$ ,  $p < .001$ ) for age and retweets and the significant negative correlation ( $-r = .312$ ,  $p < .001$ ) for age and retweets from news organizations indicates that younger college students retweet in general and retweet from news organizations more than older college students. The significant negative correlation for age and links ( $-r = .193$ ,  $p < .001$ ) indicates that

younger college students are more likely to include links than older college students. The significant positive correlation for age and pictures ( $r = .085$ ,  $p < .001$ ) indicates that older college students are more likely to include pictures than younger college students (See Table 16).

Table 16

*Correlations of Age*

Variables	Age
1. Average number of tweets**	-.27
2. Retweets**	-.14
3. Retweets from media outlets**	-.31
4. Links**	-.19
5. Pictures*	.085

$p < .005$ , \*\* $p < .001$ \*

*RQ3a: Does the user's age affect the frequency of Twitter usage in relation to the number of tweets?*

A one-way ANOVA was conducted to answer this research question and revealed that, overall, age did not affect the average number of tweets a participant tweeted. There was a significant effect at the  $p < .05$  level [ $F(4, 1007) = 26.437$ ,  $p = .001$ ]. For the most part, the participants tweeted an average of 112 times, with outliers being the 26-year-old and 28-year-old participants. The 21-year-old participants tweeted the most at 221 times (See Table 17).

Table 17

*Age in Comparison to Number of Tweets*


---

Age	Number of tweets
1. 18	114
2. 19	116
3. 20	173
4. 21	221
5. 22	101
6. 23	147
7. 26	13
8. 28	7
9. 32	102

---

The researcher also considered gender for this research question and found that 578 of the tweets were from males and 434 of the tweets considered in the study were from females.

*RQ3b: Does the user's age affect the frequency of Twitter usage in relation to the number of retweets?*

Using regression, the researcher sought to determine possible outcomes regarding age and the average number of retweets and retweets from news organizations. In running a linear regression in age and retweets, retweets from news organizations, gender, links included in the tweets, and pictures included in the tweets, the researcher

found significance and non-significance with the results. For retweets in general, there was a non-significance ( $B = .316$ ,  $p = .278$ ). For retweets from news organizations, there was a negative significance ( $B = -2.556$ ,  $p = .001$ ), indicating that younger college students retweet from news organizations more than older college students. Additionally, age and gender revealed significance ( $B = -1.668$ ,  $p = .000$ ), indicating males were older in the study than the females (See Table 18).

Table 18

*Age Regression*

Variables	Beta	Significance	R	R <sup>2</sup>
1. (Constant)	28.077		.382	.146
2. Retweet	.316	.278		
3. Retweet from news organizations*	-2.556	.001		
4. Gender*	-1.668	.001		
5. Links	-.651	.094		
6. Pictures**	.876	.037		

\*  $p < .001$ , \*\*  $p < .05$

*RQ3c: Does the user's age affect the frequency of Twitter usage in relation add-on information?*

Using linear regression again, the researcher found although there was not a significance for links and age ( $B = -.651$ ,  $p = .094$ ), the variable does indicate a link

between the age of the Twitter participant and links. The younger the college student, the more likely they are to include links. There was significance between age and pictures ( $B = .876, p = .037$ ), indicating that older college students are more likely to include pictures in their tweets than younger college students (See Table 18).

*RQ3d: Does the user's age affect the frequency of Twitter usage in relation to content of information?*

Results also indicated the average age of students who tweeted about various topics. Business and money, as well as, features and U.S. national news, was tweeted most by students averaging 20 years. Technology and science, world news, arts and entertainment, weather, politics, and state and local news was tweeted most by students in the study who were an average of 21 years of age. Health news and other was tweeted most by students averaging 22 years of age. The topic of sports was tweeted most by students averaging 23 years old (See Table 19). Using age as the independent variable, the researcher found that age did affect the content of information. A one-way ANOVA was conducted to compare the effect of age on the content of information. There was a significant effect of age on the content of information at the  $p < .05$  level [ $F(8, 1003) = 16.877, p = .001$ ]. Additionally, the students' classification was studied. Using classification as the independent variable, the researcher found that classification did affect the content of information. A one-way ANOVA was conducted to compare the effect of classification on the content of information. There was a significant effect on classification on the content of information at the  $p < .05$  level [ $F(4, 1007) = 10.292, p = .001$ ].

Table 19

*Main Topic and Average Age*


---

Main topic	Average age
1. Business and money	20.00
2. U.S. national	20.00
3. Features	20.00
4. Arts and entertainment	20.54
5. World news	20.57
6. Politics	20.81
7. Technology and science	21.44
8. Weather	21.34
9. State and local news	21.04
10. Other	21.86
11. Health	22.29
12. Sports	23.67

---

## Impact of Personal Experience

*RQ4: Does the user's social media experience affect the frequency of Twitter usage?*

The fourth set of research questions (RQ4) gauged how social media experience plays a role in Twitter usage relating to the number of tweets, retweets, add-on

information, and content information a Twitter user relays. For this research question, the researcher ran a logistic regression between social media experience and the frequency of retweets and frequency of add-on information, and ran an ANOVA between social media experience and the content information and the average number of tweets.

Correlations were considered, looking at how long a student had been on Twitter, average number of tweets, average number of retweets, average number of retweets from news organizations, links, and pictures. Correlations found significance with pictures and links. Correlations did not find significance with any of the other variables (See Table 20).

Table 20

*Correlations with How Often Students Have Used Twitter*

---

Variables	Social media experience
1. Average number of tweets	-.054
2. Retweets	-.077
3. Retweets from media outlets	-.076
4. Links**	-.001
5. Pictures*	.007

---

\*  $p < .05$ , \*\*  $p < .001$

*RQ4a: Does the user's social media experience affect the frequency of Twitter usage in relation to the frequency of tweets?*

A one-way ANOVA was conducted to answer this research question and revealed that, overall, social media experience did affect the average number of tweets a

participant tweeted. There was a significant effect at the  $p < .05$  level [ $F(4, 1007) = 30.735, p = .001$ ]. The results revealed that there was a significant jump in individuals who had used Twitter longer. Collectively, students who tweeted a year or less tweeted a total of 152 times, while the participants who tweeted one year or more tweeted 860 times (See Table 21).

Table 21

*Usage of Twitter and Number of Tweets*

Length of time on Twitter	Number of tweets
1. Less than a month	8
2. 1-6 months	40
3. 7 months to one year	104
4. 1-2 years	458
5. 2 or more years	402

*RQ4b: Does the user's social media experience affect the frequency of Twitter usage in relation to the number of retweets?*

In running a linear regression for social media experience and retweets, retweets from news organizations, gender, links included in the tweets, and pictures included in the tweets, the researcher found significance and non-significance with the results. For retweets in general, there was non-significance ( $B = -.068, p = .287$ ). For retweets from news organizations, there was a negative significance ( $B = -.224, p = .009$ ), indicating that the less time participants used Twitter, the more likely they were to retweet from



news organizations. Additionally, gender was considered and revealed significance ( $B = .297$ ,  $p = .001$ ), indicating that the male participants had more social media experience than the female participants (See Table 22).

Table 22

*Social media experience regression*

Variables	Beta	Significance	R	R <sup>2</sup>
1. (Constant)	4.070		.195	.038
2. Retweet	-.068	.278		
3. Retweet from news organizations*	-.224	.009		
4. Gender**	.297	.001		
5. Links	.081	.342		
6. Pictures	.029	.751		

*RQ4c: Does the user's social media experience affect the frequency of Twitter usage in relation to add-on information?*

There was not a significance for social media experience and links ( $B = .081$ ,  $p = .342$ ) nor for social media experience and pictures ( $B = .029$ ,  $p = .751$ ), indicating that the length of time a participant had used Twitter did not matter as to how many links or pictures participants included in their tweets (See Table 23).

*RQ4d: Does the user's social media experience affect content of information?*

Looking at how long the students had been on Twitter, the researcher found that how long the students had been on Twitter did affect the content of information. A one-way ANOVA was conducted to compare the effect of how long the students had been on Twitter on the content of information. There was a significant effect of how long students had been on Twitter at the  $p < .05$  level [ $F(4, 1007) = 3.809, p = .004$ ].

## CHAPTER V

### QUALITATIVE RESULTS

#### Focus Group

Previous research found that peers are more influential than media sources, and the audience's feelings is formed through knowledge that other individuals are reacting to the same issues they are receiving information about through media outlets (Ragas & Roberts, 2009; Shaw, 1979). The purpose of the focus group was to add information to RQ1-4 and to answer RQ5. After the content analysis, the researcher asked questions regarding Twitter and how the students felt when they used Twitter, including why they used Twitter, what information they were interested in seeing on Twitter, and what they wanted to share on Twitter. The focus group was designed so the ten students who participated would give in-depth answers to these questions and to increase the knowledge of the content analysis conducted. Therefore, open-ended questions were asked, and students were given the opportunity to respond to the questions they wanted to answer. The students varied in age, and they were asked about their feelings regarding the social media outlet. The focus group determined their attitudes regarding their own Twitter usage and other individuals' Twitter usage, including what constitutes a tweet worth tweeting and who they desire to follow on Twitter.

*RQ5: Why do college students use Twitter to distribute information?*

#### Main Topics

Smith and Warshaw (2012) noted that individuals who simply tweet information about themselves are not likely to receive many followers, and the focus group participants said they wanted to increase the number of followers, increase the amount of

responsiveness, and increase the number of retweets they received. In the focus group conducted, students indicated that they enjoy tweeting about politics, arts and entertainment, and sports and enjoyed giving their opinions regarding the various subjects on Twitter. For politics, students noted that they tweeted what they felt was important regarding politics, such as the presidential election. Some also mentioned that tweeting about politics could assist them in future career opportunities, as employers, they said, may look at a potential employee's tweets to determine his or her political standing. They seemed very aware that what they write on a social networking site could be seen by more than just their followers, but they still were eager, as the content analysis showed, to give their own opinions regarding various subjects, including politics.

Participant 2, male, junior, age 22: "(I tweet about politics) Only during election season."

Participant 2, male, junior, age 22: "During hot button topics and stuff like that. There was the fiscal cliff, but now everyone's talking about gun control and whenever they were doing the gay marriage thing in Seattle, I was all over that. I'm not going to wake up and be like, 'Let's talk about Sarah Palin again.'"

Participant 8, male, junior, age 20: "I usually do because if I'm trying to get a job in politics, I know with the Romney campaign and when I was working at the congressman's office, they'll go look at your Twitter and see if you tweet about politics. And if you do and you tweet things they agree with, then they're more willing to hire you or not ask you to make your Twitter private because then you can tweet about the campaign or you can tweet about the congressman or whatever you're working for. And that gives them positive exposure."

Many of the students revealed mixed reactions as to why they tweeted about sports. Students indicated that they tweeted about sports occurring at their university, because they wanted to look intelligent, and because they just enjoy sports. They said they enjoyed tweeting about sports because it was one of their hobbies or because they wanted to promote their university of choice. A winning team seemed to boost tweets, though students enjoyed live tweeting games as well. Students indicated that they were just as willing to give their opinions regarding sports as politics or arts and entertainment, which is also consistent with the content analysis. Also, some students noted that they saw Twitter as a marketing tool, a way to promote their university, especially if their university's team was winning games.

Participant 3, male, graduate student, age 32: "Just depends. I tweet about (my university) because it's my alma mater."

Participant 10, female, junior, age 20: "I like to tweet about football because I know what's going on, and I'm a girl. I feel people are impressed by that."

Participant 1, male, junior, age 20: "I like to tweet about my university. I like to promote my university, and one of the ways I do that is through sports."

Students indicated that if they enjoyed watching a movie or listening to a song, they were likely to discuss it on the social media outlet to tell their followers their opinion about the music or movie. Whether they thought the actor played his or her part well or the singer put out a good CD, they seemed to take the role of editorialist by commenting about the arts and entertainment aspect on Twitter. They indicated that they did not care if others thought differently than they did; they were willing to speak up against the popular mindset about something relating to arts and entertainment. They also mentioned

that they were more likely to tweet if they had strong feelings toward the artists or actors in the news. For example, if a singer they had previously enjoyed released a CD they felt was lackluster, they were just as willing to critique his or her work on Twitter as they were a singer whose work they felt rose above the standard of his or her previous work.

Participant 1, male, junior, age 20: “I was sure to let everybody know Justin Timberlake’s new song sucked because I was really disappointed. He’s really a great stand-up guy and I was disappointed his song sucked so bad.”

Participant 2 male, junior, age 22: “You’ve got to add your opinion to everything you feel passionate about. The new Ke\$ha album? No one liked it. I loved it. I thought it was the best thing in the world. I tore Twitter up over that album. I did a critical analysis of every single song. If it’s something you’re really passionate about.”

Participant 8, male, junior, age 20: “I think if someone’s going one way and I feel the other way, I’m more willing to tweet about it because you can say why you feel differently.”

#### Adding and Viewing Links and Pictures

Lee and Ma (2012) found that Twitter users utilize the social media website for a number of reasons, including finding and sharing information. Using an instrument such as Twitter can have multiple attributes: a cognitive element regarding the substantive characteristic of an object and an affective component concerning the tone, whether it is positive, negative, or neutral (McCombs & Reynolds, 2009). Regarding add-on information, the students in the focus group indicated that they do not want to click a link to view one of their follower’s websites or pictures. When specifically asked why they do

not view links or pictures on Twitter, they indicated when they were on Twitter, they wanted to stay on Twitter, even though the information they would view related to a news event that they might be interested in. Students mentioned that they rarely even viewed their personal friends' pictures or visited websites their friends tweeted. They only wanted to scroll down their news feed to receive information, not visit another website, even one that was just one click away, such as the smartphone picture application Instagram. As Instagram and Twitter's policies changed where Instagram pictures can be viewed on Twitter, just through the Instagram website, though, students noted that they don't view Instagram pictures on Twitter anymore. Though Brenner (2013) noted that Instagram is rising in popularity, the students stated that they would rather not use the photo application anymore because their followers are most likely not going to view their pictures unless they are taken as a TwitPic, which means the pictures can be viewed on the Twitter timeline instead of another website. As for links, students said they felt they received enough information from the 140 character tweets, so they did not feel compelled to visit an accompanying website or picture unless the tweet was interesting enough to them to continue reading or if the tweet did not give enough information but caught their attention. The students said they themselves did not often add pictures or links to their own tweets because they felt their followers, like themselves, would not visit the link or view the picture. Therefore, only if a news event was of profound importance to them or they believed the event was intriguing to their followers or would they add a link or a picture.

Participant 2, male, junior, age 22: "Now, even Instagram has added the links now. You can't pull it up. It used to show you the picture. You can't just look at

the picture. I never see anyone's Instagram pictures because I just don't want to hit the link. You've got to wait for it to load."

Participant 2, male, junior, age 22: "If it's a link, like – this is a bad example – but TMZ, if it's one of those where every time you get on TMZ it shows you a summary. It's not just the link; it shows you a summary and the article title, and then if that's interesting, then I'll hit it. But if it's just a link, no, I'm not going to open it."

Participant 8, male, junior, age 20: "Most of the times you can figure out what the link is about off the description they put in with the links. There's no point to read the deep details."

Participant 4, female, senior, age 21: "I add mine because my Instagram is integrated with my Twitter. I have the option of, 'Do you want to add this on Twitter?' And I'm like, yes, I want to put that on Twitter, too. But that's really the only time I add pictures."

#### Increase of Twitter Usage

Freeman and Berger (2011) noted that audience members are no longer passive consumers, especially in terms of social media. In the focus group, most students indicated that they tweeted more frequently and more than they did a year ago. All of the participants in the focus group, with the exception of Participant 9, a male sophomore 19-year-old, indicated that they had been active on Twitter for more than a year. Participant 4, a senior female 21-year-old, said she tweeted less but that she was still active in social media, particularly Instagram. She said she originally tweeted a lot, but her attention has been moved to another social networking site. Students said familiarity with the website



helped, but they were more interested in how easy it was to tweet. As Smith and Brenner (2012) found in a recent Pew study, smartphones have increased Twitter usage, and the students indicated this same trend. However, they said they were more likely to tweet about news events now than before because more people were on Twitter, making their words seen by more individuals, and because it was easier to tweet about news events. They said if some news event happened, they were much more likely to tweet about it using their smartphones than they were to wait until they were at a computer to do so. Also, the use of smartphones at various news events, such as a football game, opened the opportunity for live tweeting of the event, including the final score of the game. Students said they wanted to be the first to tweet about various events, and it was important to them that their followers saw the news from them first. Additionally, students said that Twitter has become habitual for them. They are used to writing tweets and checking tweets on a daily basis, so tweeting about news events now comes naturally to them.

Participant 4, female, senior, age 21: “I tweet less. When I first got Twitter, when I was a freshman, I was tweeting up a storm. Tweets – thousands of them. But now I barely tweet. My last tweet was nine days ago. One before that was like 18 days ago...I’m on Instagram now.”

Participant 7, male, junior age 21: “I remember when I got it. I was like the only one in my group of friends who had it. And there wasn’t anything going on. You got on there, and it wasn’t as big, and all of a sudden, it kind of blew up. For the longest time I never logged on. I had it, but I would never log on. I think when I finally got back on it, it had been a year since I posted last, and then everybody, like I said, started getting it. It was easier to keep up with.”

Participant 3, male, graduate student, age 32: “I would also say because of the iPhone. It’s integrated into the new iPhone, so it’s easier than waiting until you get to your computer to log in. You can have it all the time. So since it’s easier, I’d imagine that’s why I do it more.”

*RQ5a: How do students feel when their tweet is retweeted?*

### Retweeting

Web sites have generated interest because of the various, nonlinear ways they can be formatted (Althaus & Tewksbury, 2002). For retweeting, the majority of the focus group participants indicated that they thoroughly enjoyed being retweeted, especially if their tweet was retweeted by a celebrity or a media organization or journalist. With their friends, they felt satisfaction and pride for having written a tweet that was either informative or interesting enough for a retweet. With journalists or media organizations, they had a sense of validation for their opinion that was written. Also, like media outlets, they want more followers. The students indicated that they wanted more individuals to follow them on Twitter, and by being retweeted, they believed their chances of gaining additional followers grew because others might find them as interesting or informative as the individual who originally retweeted their tweet.

Participant 2, male, junior, age 22: “It’s like someone – your followers see it, but if someone you follow sees it and then follows you, you’re like, ‘Oh my gosh, look, my numbers are about to go up.’ It’s a good sense of accomplishment, like people like what I just said.”

Participant 6, female, sophomore, age 19: “I’ve been published in *USA Today* for stuff, when I responded. This summer I was. And they’re serious. If they’re

asking for sources or asking for people, they'll respond to you. ...That was pretty awesome. I was in there for looking like my boyfriend. They're like, 'We're looking for couples that look alike,' and I tweeted a picture of us. And they called me. They asked for my number and called me and interviewed me. And I was in *USA Today*."

*RQ5b: Why do students discuss news events on Twitter?*

#### Receiving and Distributing News on Twitter

Schultz et al. (2011) found that the medium was more important to the audience than the message, and, as far as Twitter is concerned, the social media outlet may be a quick, fast way to receive information. The participants also indicated that Twitter was the fastest way to receive news information, especially when they only wanted to know about the highlights of a certain news event. Many indicated that it was the reason they joined Twitter in the first place – as Participant 4, a senior female 21-year-old, stated, as Twitter's timeline is called a "news feed," it seems evident that individuals should receive their news there. The students felt that their busy schedules, which included work and school, made following the news through traditional outlets a little more time-consuming. They said they felt Twitter was not only the fastest way to receive news updates, but it was the most convenient with their schedules. Also, the students pointed out that instead of having to read, watch, or listen to all the news at a certain time, Twitter allowed them to pick and choose which news they wanted to view. For example, if they only wanted to read about sports news, they could just follow sports journalists or sports media outlets.

Participant 4, female, senior, age 21: “I feel like news is supposed to be on Twitter. That’s why it’s called your news feed, your timeline. People are looking there to find out things, so I feel like that’s how it’s supposed to be.”

Participant 2, male, junior, age 22: “It’s like a passive-aggressive way to push your opinion about something, like a debatable topic. You can be like, ‘Oh, look at this article I just read. You’re all wrong.’”

Participant 7, male, junior, age 21: “It’s easier than watching TV. It’s just quick, and it’s to the point. Instead of like a lot of stuff, it goes back to that 140 characters. It’s something real quick, and they have to get their point across, and it’s something easier to look at. If it catches your attention, you click on it; if not, just scroll past it.”

Participant 6, female, sophomore, age 19: “Twitter is the fastest way to get news.”

Participant 8, male, junior, age 20: “Pretty much the whole reason I’m on Twitter is for sports news and other breaking news. If I see something like, here for the past few weeks with the coaching search at (my university), anything about someone who was interviewing, I would retweet. And those are usually reported by journalists, not full media outlets.”

The participants’ reactions were mixed as to whether or not they would tweet controversial information. Some said they advocated tweeting hot button topics, while others were more conservative with their viewpoints, particularly relating to political matters. They said they were not overly desiring to start a conflict on Twitter as much as restate their opinion with distributing information or seeking educational discussion through tweeting news information. They also indicated that they wanted to tweet timely

information. They were not interested in distributing old news; not only did they want to break news if and when possible, but they also wanted to tweet about timely information that was currently being covered by news media.

Participant 2, male, junior, age 22: “It’s really funny. Like the biggest thing right now is gun control, and you’re either super there or you’re super here. If you find something that you’re like, ‘That’s evidence for what I want,’ and say I’m in the south and people like guns and I’m just like whatever about it, but you know that’s going to get a rise out of somebody, you just throw it in there and watch what happens.”

Participant 6, female, sophomore, age 19: “I like tweeting more about stuff when I’m in the middle so I can actually engage in a good conversation on Twitter instead of just ticking a lot of people off. That’s usually when I talk about stuff.”

Participant 8, male, junior, age 20: “I usually only tweet about big events that interest me. But if there’s something crazy going on, I’ll usually tweet about it, but mostly to make a joke about it, like the Manti Te’o thing right now is hilarious. If you look on Twitter, so many people are tweeting about imaginary girlfriend jokes. If there’s something ridiculous like that, I tweet jokes about it but that’s it.”

Participant 2, male, junior, age 22: “(I tweet) During hot button topics and stuff like that. There was the fiscal cliff, but now everyone’s talking about gun control and whenever they were doing the gay marriage thing in Seattle, I was all over that. I’m not going to wake up and be like, ‘Let’s talk about Sarah Palin again.’”

## CHAPTER VI

### DISCUSSION

This study has examined how university students communicate and share information through the social networking system Twitter. It has aimed to provide examples of what students share on Twitter and why they share the information on Twitter.

#### Research Question 1

The first set of research questions sought to determine if college students use Twitter to communicate personal information more than news by looking at the main topics of the tweets, the formats of the information, and students' response to personal or news organizations about news events. The media choose what information to distribute, and college students have the opportunity, through Twitter, to post that news information on Twitter instead of using it for personal interests (Mencher, 2003). Hargittai and Litt (2011) found that many individuals who choose to use Twitter do so for entertainment and celebrity news more than for national or international news, including politics, the researcher believes that the reason students posted more about sports and politics is due to the news at the time of the study.

A geographic comparison of the four schools revealed that three of the four schools tweeted more news events that had a news significance appeal to the tweet rather than significance to only one's personal life. Also, the main topic of all four of the schools was one of the three top topics found in the overall study: politics, sports, and arts and entertainment.

This could be because football was in season and in relation to politics, this study was conducted a month before the American presidential election. As Sheaffer (2007) pointed out, agenda-setting and priming components can use positive or negative attributes, and emotions relating to football and politics often are high. Also, as students may feel strongly one way or the other regarding certain sports teams or political candidates, Twitter allows them to share their opinions regarding those subjects. All four schools had a majority of opinionated tweets rather than purely factual tweets as well, and all of them were less likely to respond in a tweet than respond.

As Lee and Ma (2012) noted, individuals use Twitter for a multitude of reasons, such as to share and pursue information. The results indicated that individuals enjoy sharing their opinions regarding certain news events, which supports Kim et al.'s (2012) agenda setting study, which showed that second-level agenda setting deals with the reasons individuals support or oppose certain issues. Sheaffer (2007) found that individuals use attributes to assist them in making evaluations about the news, which in turn could be seen as a fact or opinion on Twitter. This social media outlet allows users to share their opinions on subjects easily and instantaneously.

Based on the results, when relaying news events, most students tweet information that has news significance. Students indicated in the focus group that they are likely to tweet or retweet news information that retains to their own lives. About double of the students tweeted information with news significance, which is not overly surprising, given the top tweeting topic by the participants was sports. Politics, the second highest tweeting topic, could be seen as being a more personal news topic, but as with sports, politics, and arts and entertainment were the three top tweeting topics, it was not a

surprise that almost 64% of the news tweets relayed more news significance than personal significance. Also, the results indicated that a little more than half of the tweets indicated opinionated information in relation to the news tweets, which, again, was not a surprise, given Mencher's (2003) study that Twitter users use the social networking network to post news information themselves and therefore give their own opinion on the subject discussed. Lastly, regarding students' responses to other tweets, students did not often respond about news events, given that only 15% of the tweets were any type of response. However, out of those responses, the large majority of the tweet responses were to media outlets or journalists.

Therefore, as students are tweeting information that has more news significance in relation to news events, particularly in reference to sports, as Schultz and Sheffer (2011) noted, younger sports journalists are using Twitter as its own medium as well. Students enjoy reading live tweets of news events and tweeting their own live tweets as well, making Twitter an interactive medium. Also, as Twitter is a communication tool that college students seem to use to share their opinions regarding certain news events, the more journalists and media outlets reach out for sources or opinions, the more, this research has found, students seem willing to interact. This could generate more interest in news events. Students liked to share their opinion about what was happening in the world around them, and as Twitter allows them to communicate freely and openly with their peers and journalists, it could offer another way to involve the upcoming generation about news. Granted, while only 15% of the tweets coded were a response, it still may be fruitful to ask questions to Twitter followers to facilitate discussion between the media outlet and the media audience. As politics, sports, and arts and entertainment were the top



three tweeting topics noted in the study, the researcher believes these three topics should be developed the most in relation to what media outlets tweet about to encourage current followers to respond, to recruit new Twitter followers, and to generate interest in the media outlet's news site.

A Pew Center study found that Twitter users are generally intense individuals who are Internet savvy. They seek media and news online and are generally mobile young adults – not teens, however (Lenhart, 2009). Looking at what this research implies for media research, as Mencher (2003) noted, the media choose what information to distribute and when to distribute. However, students, as they are tweeting about news events, are becoming pseudo-journalists themselves. Gant (2011) noted that the line between ordinary citizens and journalists was clear a few years ago, but with new technologies, that line is becoming blurred. College students themselves can be on the scene tweeting updates about a game or about a political candidate visiting their university. Sites such as Twitter are increasing in popularity and while Twitter will no doubt be replaced in the future by a different social media site, it is noteworthy to point out that second-level agenda setting of the transfer of issues from the media to the public is becoming harder to distinct as the line between journalist and citizen becomes harder to see. As Smith and Warshaw (2012) noted, individuals can use Twitter to break news faster than most media outlets now, so anyone with a smart phone and a Twitter application can give basic details within 140-characters as to what is happening in the world around them. Granted, this does not make anyone with a Twitter application a journalist or media outlet, but it does allow them to become individuals who can report to

their followers various news events, and those individuals who see the information on Twitter, in turn, can spread the news to their own Twitter followers.

### Research Question 2

The second set of research questions looked at how college students presented information on Twitter and what information they retweeted. As Althaus and Tewksbury (2002) noted, research on web sites is beneficial with agenda-setting research because of the various ways they can be formatted. Framing also can be considered, as to create a frame on Twitter in 140 words, one must determine evaluations, causal reasoning, and recommendations for solutions to various scenarios (Weaver, 2007).

The results indicated that 42.8% of the tweets were retweets with news information. Out of those retweets, 20.7% were retweets from a news organization or someone employed with a news organization, indicating that while half the students interested in retweeting news-related tweets receive their news from a media outlet or journalist, the students retweeted a portion of news from traditional outlet and portion from friends. In the content analysis conducted, out of the 209 tweets that were retweets from a news organization or someone employed with a news organization, 134 of them included a link to a media outlet, though only 87 included a picture related to the news event discussed. This ties in well to the results indicated in RQ1. Students are interested in spreading information about news events; however, they seem to not care as much as to the source of their information, whether it is a reputable media outlet or a personal connection. A recent Pew Center study found that individuals on social networking sites are more closely connected to professional journalists and news organizations on Twitter than any other social networking site, with 36% of Twitter users following some media

organization or journalist (“In Changing News Landscape, Even Television is Vulnerable,” 2012). If media outlets and journalists are concerned with how many retweets their particular news tweet receives or how many page views their website receives, they should make an effort not only to tweet news events quickly, but tweet news that perhaps includes a link to their website or a picture. As Twitter only allows users to tweet up to 140 characters, users have to be very specific in what they right and how they frame the information. Sometimes a retweet is the easiest way to distribute the information within that 140 character limit, though students must choose what tweets are necessary to retweet, why those tweets should be retweeted, and what purpose each retweet could serve for their own followers. As Weaver (2007) found, framing is considered, even in a 140-character tweet, and students and professional journalists and media outlets must choose how they frame each Tweet that they write and choose to retweet. Based on the focus group interview, students retweet information that they find interesting or relevant to their interests, which, according to the findings, most likely would be something in politics, sports, or arts and entertainment categories. Students retweet based on opinions they already have, and they use retweets to reinforce their viewpoints to their followers.

### Research Question 3

The third set of research questions looked to determine if age affected the frequency of Twitter usage in relation to the number of tweets, the number of retweets, the add-on information, and the content of information. The results indicated that age played a factor in how many retweets from news organizations a user retweeted and whether or not users added a picture to the tweet. The ages of the individuals in the

project ranged from 18 to 32. Additionally, it should be pointed out that the three oldest Twitter users who tweeted about news events were 26, 28, and 32. Every other Twitter user who tweeted about news occurrences was in the age range of 18-23. A 2012 Pew Center study found that Twitter usage among 18-24 year olds on a typical day continues to dramatically grow, though the report noted that slightly older adults, aged between 25 and 34, have begun to use Twitter regularly as well. The study noted one reason for this growth was the smartphone usage among young adults, as young adults are also the largest increase of smart phone owners (Smith and Brenner, 2012). A more recent Pew study by Duggan and Brenner (2013) found that the trend continues, with young adults more likely than any other age group to use social media, with Twitter being appealing to adults between the ages of 18 and 29, which falls right in line with the results of this study. For older adults, however, about one in five who are older the age of 65 get online news regularly, which is the lowest percentage of any age group (“In Changing News Landscape, Even Television is Vulnerable,” 2012). Individuals who go online to social networking sites are more likely to see news on those sites, and, as younger adults use social networking sites more than older adults, which, in one Pew Center study was over the age of 39, younger adults therefore are more likely to see news updates on social networking sites (“In Changing News Landscape, Even Television is Vulnerable,” 2012). Additionally, Kiouisis et al. (2006) found that when agenda setting correlated with civic awareness among youth, adolescents were more interested in political events. This research found that politics was a prominent discussion point on Twitter among those who participated in the project. As Coleman and McCombs (2007) stated, younger individuals under the age of 34 are more likely to find news online, and the individuals

who tweeted news events were informing their online companions about various news events. Also, it was telling that, regardless of age, each age group tweeted about the same three main topics of sports, politics, and arts and entertainment, though not always in that order.

Based on the results and previous research, younger students who were involved in the study are more likely to receive their news on Twitter. Clavio (2011) pointed out that if a behavior is considered normal in an age group, an individual from that group is more likely to engage in the behavior. In that study, age had a significant impact on the usage of traditional media. Younger individuals were less likely to use traditional media or even visit a website or message board. The younger individuals in Clavio's (2011) study were more likely to use social media for Internet community interaction, which was noted could be due to the level of comfort in the actual utilization of social media in comparing younger and older audiences. Media outlets and journalists with an active Twitter account may want to examine every tweet posted. While it is easy to instantaneously share information through Twitter, scholars pointed out that individuals who tweet too much or tweets that are not of high value to followers will be unfollowed (Smith & Warshaw, 2012). Based on the results of this study, younger Twitter users in college studied feel freer to express themselves and give more information about news events on Twitter. As the college students involved in the study tweet, retweet, and use pictures, media outlets and journalists may use add-on information to increase visibility on their own Twitter sites, either through encouraging their Twitter followers to retweet their news information or for the college students simply to reiterate the information on their own Twitter accounts. Students in the study did not seem interested in visiting other

websites, which is consistent with previous research (Clavio, 2011), so if a tweet does include add-on information, it should be used sparingly and only for breaking news. Media outlets and journalists should also see Twitter as its own medium instead of utilizing it only as a device to lead Twitter followers to another website.

#### Research Question 4

The fourth set of research questions looked at how a user's social media experience affected the frequency of Twitter usage in relation to the number of tweets, the number of retweets, the amount of add-on information, and the content of information. The results indicated the amount of time a user has been on Twitter did affect the frequency of retweets from news organizations but not retweets in general nor whether a link or picture was added to the tweet. In the focus group, the students noted that they used Twitter more currently than they did a year ago. This is consistent with various Pew Center studies that indicate that Twitter usage among young adults continues to grow (Brenner, 2013; Smith & Brenner, 2012). Regarding the main topic, it seems social media experience did not have an effect on a variety of main topics. Despite how long one had used Twitter, the main topics still remained consistent with previous findings of this study, being that the highest trending topics by the users were either politics or sports. The results of this question were not overly surprising. If someone uses Twitter more often, it is likely they feel more comfortable with the technology and therefore feel freer to use it. As Junco et al. (2011) noted, student usage of social media applications, such as Twitter, relates to how students view the world. To engage students, traditional media or social media must be relevant to their interests. The majority of the students in the focus group indicated that they used Twitter more than they did a year ago

for three reasons in particular: more of their friends were on Twitter, Twitter was easier to update with the technology being integrated with the new smart phones, and Twitter's 140-character limit was easier to gather information. Smith and Warshaw (2012) noted that Twitter allows an everyday person to break news like never before, which is changing the way media are viewed. Now anyone with a Twitter application on his or her smartphone can break news quicker than just about any news organization (Smith & Warshaw, 2012). What was telling in the focus group was how the students primarily enjoyed the 140-character limit because they got the basics of the news information without having to read an entire story or even the first few paragraphs. While news stations such as NBC and ESPN devote entire sections of their programming to Twitter and encourage Twitter users to communicate with them (Smith & Warshaw, 2012), other research noted that various popular media types within the traditional and social media realm should be utilized to make audiences more comfortable with the various media options to use (Clavio, 2011). Though news organizations and journalists can use Twitter to gain followers and audience members, they should also use other social media outlets and still rely on traditional media in order for the entire audience to be aware of news events.

#### Research Question 5

The fifth set of research questions sought to determine why college students use Twitter to distribute information and how they feel when their information is retweeted. Using a focus group, the researcher determined that college students enjoy being retweeted. They feel validation when their tweet is retweeted or even when a news organization or journalist responds to them. Students also indicated that they go to

Twitter to receive news information; however, the reason they go to Twitter to receive news updates is because of its brevity. The 140-character limit only allows journalists and news organizations to post the very basic information. However, the students enjoy that condensed information, preferring to just read the 140-character tweet than visit a news website or even click on a link that a news organization or journalist has included in the tweet. Most students also enjoyed reading live updates of news events, such as political debates or sporting games because it allowed them to stay connected even if they were unable to watch the event themselves.

From a media standpoint, these results are highly revealing. Students do not seem to have the patience or eagerness to visit media websites; they would rather receive the highlights from Twitter. Not only that, but they would only like to receive highlights that are 140 characters or shorter. If Twitter is becoming a way for students to receive news and students are bypassing media websites and turning instead to Twitter, news outlets need to focus their attention on very catchy material on Twitter to gain followers. Students also said that they would rather follow individual journalists because they feel the journalists not only are credible, but they are also more personable than a media outlet's Twitter account. Students enjoy when media outlets or journalists ask for their opinion as well; therefore, it would be prudent for media outlets and journalists to seek sources or seek opinions of their Twitter followers to help the followers feel more connected and more involved with the news event. Academically, more attention needs to be placed on social media outlets, specifically Twitter and Instagram. Brenner (2013) noted that 13% of online adults use Instagram, and 16% of online adults use Twitter, showing a rise of Instagram's popularity. Many of the students mentioned that Facebook



was becoming a social networking site of the past; Twitter is present and Instagram seems to be the future. Students are turning to Twitter more to receive their news updates instead of media websites, and they are sharing this information with their own followers.

Despite their comments about tweeting about controversial or hot button topics, such as politics, the results of the content analysis indicated that politics was the second most tweeted about news subject. However, that could be a reaction to the presidential election, as the participants indicated that they were more likely to tweet about politics during important issues, such as an election or gun control. None of the students, however, indicated that they had serious reservations about tweeting about any particular subject. During the focus group, the students indicated that they tweeted about news events that were important to them. Unlike media outlets and journalists, who tweet information of interest to the public, with controversial issues and politics, the participants indicated they were more likely to tweet about the event if it held an interest to them. If they were concerned about whom the next president would be they were more likely to take stances on Twitter regarding the issue. If their college football team had a winning season, they were more likely to tweet about it.

Students seemed to care more about a winning team than a losing team and tweeting about wins over loses. They were more interested in their school's sporting events than national sporting events and more likely to tweet about their own college's teams than a state or national team. This could be because they could attend the sporting games at their university easier than a game of a professional team, which would include additional travel and expenses. Also, students indicated that they enjoyed being the first to tweet about news events, and attending a sporting event and being able to tweet game

updates or the winning score before their Twitter followers could give them an additional sense of pride for relaying the information before their other followers or before a media outlet or journalist. As the students indicated, they were more excited when they tweeted original information than when they retweeted information they received from another source. Similar to how news outlets want to be the first to break news, students want to be the first to break news with their followers. Future research could focus more on why students seem eager to break news with their followers.

In reference to including add-on information, the students indicated that one of the reasons they don't post links or pictures often themselves is because of their own dislike when individuals or organizations they follow do the same thing. Twitter recently changed policy so that only pictures with "twitpic" links can be viewed on one's news feed below the tweet. For another service, such as the popular Instagram, viewing a picture takes visitors to another website. Students stated that when they were on Twitter, they had no desire to visit any other website, even if it was to read a news story or to view a picture from an event. In addition to wanting their news in 140 characters or less, they also do not care to see any additional picture or information unless it is on Twitter. Twitter is a micro-blogging social media tool, and the participants in this study seemed to only want the basic information that could fit into a single tweet.

Only if the news was of particular interest to them would they visit the picture or the website. However, the students indicated that adding pictures or links on their own tweets often depended on the applicability with other programs with Twitter and how amusing the activity they were viewing was. As noted with what add-on information they choose to view on Twitter, students stated that the picture or link had to have a particular

interest to them to include it in their own tweets. They also stated that they hoped the add-on information would be of interest to their followers. Just as news organizations look to distribute news of interest to their readers, listeners, and watchers, Twitter participants tweet information they find useful or interesting to their followers. Schultz and Sheffer (2011) noted that younger journalists are more likely to use Twitter as its own medium, not just as a promotional tool for existing work on other online media, and this should be encouraged.

As more individuals join Twitter, the more the participants in the focus group seem to want to use the social media outlet. The students desire followers, and they want their voices to be heard on Twitter, even though they admitted that they do not read all of the tweets of the individuals they follow. Smith and Warshaw (2012) noted that individuals who simply tweet about themselves are not likely to receive many followers, and the Twitter participants in the focus group said they wanted to increase followers, increase responsiveness, and increase retweets. Twitter seems to be an outlet for them to discuss their viewpoints on various news events, whether it be politics, sports, entertainment, or another subject, and they seek to distribute the news to their followers with their own opinions and critiques on the subject. They want their information to be retweeted as well, as retweets give them satisfaction that not only was their information read, but it was entertaining or interesting enough for someone to share with his or her own followers. As far as agenda setting is concerned, they are attempting to set their own agenda on Twitter by posting about news events and hoping for comments or retweets to validate their information posted on this micro-blogging tool.

### Limitations and Future Research

For this research project, limitations came in the form of a lack of research funding to personally visit each of the universities. Only one university was able to be personally visited, and the researcher would like to see future research on this project take that form, either with one researcher visiting multiple universities or with four researchers working together on a similar project. Other limitations include a low response rate from some universities, few variables, and a lack of diversity in the students' majors and ages. Possibilities for future research could include a more detailed content analysis or a study on intermedia communication between social media and traditional media during certain events. The researcher also feels that additional research could be continued based on this study, including either a comparison study on how much students tweet in an election year versus a non-election year or a comparison study on how students use Facebook versus Twitter and, more importantly, how students use Instagram versus Twitter. As some of the focus group participants mentioned using Instagram, it might be intriguing to determine if Instagram is becoming a social media news site as well as Twitter.

## CHAPTER VII

### CONCLUSION

This study found that the 118 college student participants who the researcher followed on Twitter do use Twitter to communicate news. They also use Twitter to receive the news. The main topics of the news stories that the students communicated through Twitter were sports, politics, and arts and entertainment, and the students tweeted more opinionated tweets than pure factual tweets. Students in the study wanted to receive news information on Twitter, and they wanted to disseminate news information on Twitter. They enjoyed their tweets being retweeted because they felt someone else either agreed with their opinion or found their tweet interesting or amusing enough to share with additional individuals. Also, students do not respond often in tweets, preferring instead to give their own opinion regarding a news event. They want to contribute their opinion, but they are less interested in responding than they are creating their own content regarding news information.

Youth, additionally, did not seem to make a prevailing difference as to whether or not someone tweeted, though individuals who had tweeted for a year or longer seemed to be more comfortable with sharing their opinions on Twitter. The more comfortable the participants became with using Twitter, the more they indicated they were likely to speak up on Twitter, though they became Twitter-savvy in knowing what their followers wanted to see and read. In the focus group, the students noted that they were not often interested in viewing pictures or visiting other websites that were linked through Twitter, so this could indicate why they themselves did not post pictures or links often and why social media experience returned non-significant results. Therefore, the more time

individuals spend on Twitter, perhaps the more comfortable they will feel with using social media and sharing news relevant to their followers on various social media networks, whether it be Twitter or another one that will eventually take Twitter's place. This generation is compelled to post their opinion for the world to see. As Morris, Teevan, and Panovich (2010) found, users of social networking tools seek information on these platforms, such as Twitter, and they want the information quickly. Twitter allows information to be passed instantaneously, making it a valuable tool to receive and distribute information. Twitter is becoming a source for individuals to receive news information. Students involved in the study want to feel involved in the distribution of news information and giving their opinions on news events. Additionally, while students are interested in giving their own opinions, they also want commentary from journalists they follow.

Social media, in general, has changed the face of journalism, and Twitter in particular, as Sheffer and Schultz (2010) found, it needs to be viewed as its own media platform instead of an outlet to encourage individuals simply to visit a website. Additional information needs to be included, questions need to be posed, or commentary needs to be given. Content of information on Twitter is very important, and how interesting that content is determined if the students involved in the study were interested in learning more information. Students in the study were interested in the very briefest information, wanting to read only 140 characters or less about a subject and only wanting to learn more if the information was compelling to their interests. Twitter is more than just a communication tool. As Smith and Warshaw (2012) found, Twitter is transforming the entire concept of media, encouraging users to spread news information to their

followers. As students in the study mentioned Instagram's popularity and a Pew Center found it is rising in usage as well (Brenner, 2013), while Twitter may eventually fall to a more dominant social media network, social media in general, especially as a media tool, seems to be changing the media landscape. However, college students in the study noted that they use Twitter to distribute information because it's fast in 140 characters or less and they can do it with a mobile device while at the scene. Pew Center studies have indicated that one of the reasons Twitter continues to grow is because of its applicability settings with mobile devices, which make it easy for individuals to update or check their Twitter accounts (Brenner, 2013; Smith & Brenner, 2012). Therefore, as technology continues to develop, social networking sites like Twitter may become utilized more for individuals to receive and distribute news updates.

## APPENDIX A

## CODEBOOK FOR CONTENT ANALYSIS

## Unit of Analysis

Tweets taken from freshmen, sophomores, juniors, seniors, and graduate students, and the sample will be tweets collected between June 15, 2012, to July 15, 2012.

## Operational Definitions and Coding Categories

News – According to Mencher (2003), news should have one of the following eight news values: timeliness, impact, prominence, proximity, conflict, the unusual, currency, or necessity. News can also be “hard,” referring to timely and staid stories, or “soft news,” which is more entertaining and less timely (Bender et al., 2012; Rich, 2003). Therefore, using this knowledge and Tewksbury’s (2006) news classifications, the following will be coded:

Sports – any mention of a sporting event or celebrity including sports, sporting events, and names of athletes

Business and money – any mention of economics, business, and/or money

Arts and entertainment – any mention of a form of entertainment, whether it be a local or national celebrity, a concert, or an event

Features – any feature news not relating to arts or entertainment

US national – any mention of a news event outside the state of the Twitter user’s location within the United States

Technology and Science – any mention regarding a science or technology news event

World – any mention of a news event outside the United States

Politics – any mention of a political issue or a political candidate or political issue

Weather – any mention of weather, regardless of location, and including national weather disasters

Health – any mention of a health related news issue

Opinion and editorial – any mention of another individual’s or news organization’s opinion

State and local – any mention of a news event, excluding politics, sports, and entertainment, that takes place within the state of the Twitter user’s location

Obituary – any mention of an obituary, regardless of location, but not including a celebrity’s death, and a celebrity includes anyone in the entertainment industry, not news industry

Advertisement – any mention of a paid advertisement by a non-news source

Other – any mention of a personal, non-news related event, especially when the tweet refers to oneself

News significance – a tweet that refers to an event happening based on one of the news categories mentioned above



Personal significance – a tweet that mentions a news event only in reference to one’s personal life

First-hand witness – when a Twitter user is verifiably at the news event mentioned in the tweet

News organization – a media outlet or journalist employed with a media outlet; does not include bloggers or independent journalists

Fact – a tweet that contains only factual information, no opinionated information

Opinion – a tweet that contains opinionated information; can also include factual information

Accounts – how many Twitter users the participant follows

Twitter user name:

Age of Twitter user:

Date of tweet:

How many tweets does the user write on average, per day?

1 = 0-5

2 = 6-10

3 = 11-15

4 = 16-20

5 = 21 or more

Is the tweet personal or have news significance?

1 = Personal

2 = News significance

3 = Unable to tell

Is the tweet about news that the tweeter has witnessed first hand?

1 = Yes

2 = No

3 = Unable to tell

Is the tweet a retweet from someone else?

1 = Yes

2 = No

3 = Unable to tell

Is the tweet a retweet from a news organization or someone employed with a news organization?

1 = Yes

2 = No

3 = Unable to tell

Main topic of tweet:

- 1 = sports
- 2 = business and money
- 3 = arts and entertainment
- 4 = Features
- 5 = US national
- 6 = Technology and Science
- 7 = World
- 8 = Politics
- 9 = Weather
- 10 = Health
- 11 = Opinion and editorial
- 12 = State and local
- 13 = Obituary
- 14 = Advertisement
- 15 = Other

Is the tweet a fact or opinion?

- 1 = fact
- 2 = opinion
- 3 = unable to tell

Were names of media outlets or journalists included in the tweet?

- 1 = yes \_\_\_\_\_(list name of media outlet or journalist)
- 2 = no
- 3 = unable to tell

Did the tweet include a link to a news site?

- 1 = yes \_\_\_\_\_ (list website)
- 2 = no
- 3 = unable to tell

Did the tweet include a picture?

- 1 = yes
- 2 = no

Is the tweet responding to something a non-news organization/journalist tweeted?

- 1 = yes
- 2 = no
- 3 = unable to tell

Is the tweet responding to something a news organization or a journalist tweeted?

- 1 = yes
- 2 = no
- 3 = unable to tell

Is the tweeter male or female?

- 1 = male
- 2 = female

How often did the tweeter say he/she had used Twitter?

- 1 = Less than a month
- 2 = 1-6 months
- 3 = 7 months to a year
- 4 = 1-2 years
- 5 = More than 2 years

How many followers does the tweeter have?

- 1 = 0-40
- 2 = 41-80
- 3 = 81-120
- 4 = 121 or more

How many accounts does the tweeter follow?

- 1 = 0-40
- 2 = 41-80
- 3 = 81-120
- 4 = 121 or more

## APPENDIX B

## PARTICIPANT QUESTIONNAIRE

The following questionnaire was distributed to students attending four universities across the United States and who had a Twitter account. The researcher obtained IRB approval from all universities prior to the distribution of the questionnaire.

## Questionnaire

1. Do you have a Twitter account?

\_\_\_\_\_

2. How long have you had Twitter?

\_\_\_\_\_ Less than a month

\_\_\_\_\_ 1-6 months

\_\_\_\_\_ 7 months to a year

\_\_\_\_\_ 1-2 years

\_\_\_\_\_ More than 2 years

3. How often do you log into your Twitter account?

\_\_\_\_\_ Less than once a week

\_\_\_\_\_ Once or twice a week

\_\_\_\_\_ Multiple times a week

\_\_\_\_\_ Once a day

\_\_\_\_\_ More than once a day

4. How often do you tweet or retweet?

\_\_\_\_\_ Less than once a week

\_\_\_\_\_ Once or twice a week

\_\_\_\_\_ Multiple times a week

\_\_\_\_\_ Once a day

\_\_\_\_\_ More than once a day

5. How often do you use hashtags (#)?

\_\_\_\_\_ On every tweet

\_\_\_\_\_ For the majority of my tweets

\_\_\_\_\_ About half the time I tweet

\_\_\_\_\_ Rarely

\_\_\_\_\_ I don't know what hashtag is used for

6. Why do you use Twitter? (Check all that apply).

\_\_\_\_\_ To keep up with friends and family

- To see what celebrities/athletes/politicians are doing  
 To keep up with the news  
 Because it's popular  
 Other (please list in space below)

7. Do you follow any news outlets?

- Yes (if so, list approximately how many) \_\_\_\_\_  
 No

8. How do you access Twitter? (Check all that apply).

- Computer  
 Cell phone (without Internet capabilities)  
 Cell phone/Smartphone (with Internet capabilities)  
 Internet tablet (such as an iPad or Kindle Fire)  
 Other (please list) \_\_\_\_\_

9. Please list your Twitter name (i.e. @yourtwittername).

\_\_\_\_\_

10. Will you allow the researcher, Judith Roberts (aka @jrobertsusm1,2,3, or 4), to follow you on Twitter for a quarter?

\_\_\_\_\_

11. What is your classification?

- Freshman  
 Sophomore  
 Junior  
 Senior  
 Graduate student

12. How old are you?

\_\_\_\_\_

13. What is your hometown?

\_\_\_\_\_

14. What is your major?

\_\_\_\_\_

15. What is your gender?

\_\_\_\_\_ Male  
\_\_\_\_\_ Female

16. What is your email?

\_\_\_\_\_

17. Would you be willing to participate in a focus group at a later date?

\_\_\_\_\_ Yes  
\_\_\_\_\_ No

18. If you answered “yes” on question 17, please list the easiest way to contact you, whether phone (list number) or email.

\_\_\_\_\_

APPENDIX C  
RESEARCH QUESTION VARIABLES

The following table indicates how each variable in the coding sheet will assist in answering the research questions. For RQ1, variables included whether or not the tweet has personal or news significance, if the tweet indicates news that the tweeter is on the scene discovering, the main topic of the tweet, whether the tweet is a fact or opinion, and if the tweet is in response to something someone else tweeted about. For RQ2, the variables include determining if there is an @ mention, if there is a link, or if there is a picture included in the tweet. For RQ3, the variables will look at the user's age and the average number of tweets the Twitter user writes per day. For RQ4, the coders looked to the questionnaire to determine when the Twitter user opened a Twitter account, and then the coders looked on the user's Twitter account to determine how many followers the Twitter user has and how many accounts the user follows. A focus group was used to answer RA5.

<p>RQ1: Do college students use Twitter to communicate news?  RQ1a: What are the main topics of the news stories?  RQ1b: What are the formats of the information, facts or opinions?  RQ1c: Do students respond to personal or news organizations about news events?</p>	<p>Is the tweet personal or have news significance?  Is the tweet about news that the tweeter has witnessed first hand?  Main topic of tweet:  Is the tweet a fact or opinion?  Were media outlets included in the tweet?  Is the tweet about something a personal news source tweeted?  Is the tweet about something a news organization tweeted?</p>
<p>RQ2: How do college students present news on Twitter?  RQ2a: How often do college students retweet a story without add-on information</p>	<p>Did the tweet have an @mention?  Did the tweet include a link to a news site?  Did the tweet include a picture?</p>

<p>(e.g., comments, @mention, etc.)?  RQ2b: How often do college students retweet a story with add-on information (e.g., comments, @mention, etc.)?</p>	
<p>RQ3: Does the user's age affect the frequency of Twitter usage?  RQ3a: Does the user's age affect the frequency of Twitter usage in relation to number of tweets?  RQ3b: Does the user's age affect the frequency of Twitter usage in relation to retweets?  RQ3c: Does the user's age affect the frequency of Twitter usage in relation to add on information?  RQ3d: Does the user's age affect the content of information?</p>	<p>Twitter user's age  How many tweets does the user write on average, per day?</p>
<p>RQ4: Does the user's social media experience affect the frequency of Twitter usage?  RQ4a: Does the user's social media experience affect the frequency of Twitter usage in relation to number of tweets?  RQ4b: Does the user's social media experience affect the frequency of Twitter usage in relation to retweets?  RQ4c: Does the user's social media experience affect the frequency of Twitter usage in relation to add-on information?  RQ4d: Does the user's social media experience affect the content of information?</p>	<p>How often did the tweeter say he/she had used Twitter?  How many followers does the tweeter have?  How many accounts does the tweeter follow?</p>
<p>RQ5: How do students choose what to post?  RQ5a: How do students feel when their tweet is retweeted?  RQ5b: Why do students discuss news events on Twitter?</p>	<p>Focus group</p>



## APPENDIX D

## TRANSCRIPT OF FOCUS GROUP

Researcher: Why do you use Twitter?

Participant 1: I use Twitter to let everyone know what I'm thinking.

Participant 2: I use it because it's like, you have Twitter and you tweet like 50 things a day. That's the norm, but you can't update your Facebook status like 50 times a day. It would look weird. If you throw something out on Twitter, it's not that big of a deal. It's encouraged. That, and you can follow celebrities, and it's more personal because they're actually handling their own stuff usually, so it makes you feel cool, like you're friends with them or something.

Participant 3: I use it to communicate or share something I found interesting on the Internet.

Researcher: How do you feel if your tweet is retweeted?

Participant 4: I feel special.

Participant 2: It's the best day, the best part of my day.

Participant 5: It's better than my birthday.

Participant 1: It's awesome.

Researcher: Why is it awesome? Why is it so great?

Participant 1: Because more people are going to follow me because they think I'm funny.

Participant 2: It's like someone – your followers see it, but if someone you follow sees it and then follows you, you're like, "Oh my gosh, look, my numbers are about to go up." It's a good sense of accomplishment, like people like what I just said.

Participant 4: It means other people agree with how you feel. They think what you think.

Researcher: Why do you discuss news events on Twitter?

Participant 8: Work.

Researcher: Work? Be specific. What do you mean with work?

Participant 8: ...When I was on the campaign, we were only allowed to tweet things Gov. Romney tweeted, so we were only allowed to retweet him, tweet his quotes, or things like that. So when I did tweet, it was mostly related to that.

Participant 4: I feel like news is supposed to be on Twitter. That's why it's called your news feed, your timeline. People are looking there to find out things, so I feel like that's how it's supposed to be.

Participant 2: It's like a passive-aggressive way to push your opinion about something, like a debatable topic. You can be like, "Oh, look at this article I just read. You're all wrong."

Researcher: Do you feel like a journalist when you tweet news events?

Participant 3: No.

Researcher: How do you update Twitter the most?

(hands raised – all update on phones)

Participant 7: I do it from my iPad and my PC, but mostly it's my phone because that'll be always on me.

Gabby: It's always there.

Participant 1: I like the layout on the phone a lot better. If I get on the website, I'm like, "This is foreign."

Participant 3: I can't carry my laptop in my pocket.

Participant 4: I like to just press send. I don't have to go and click the button for it to automatically do it. I don't like being online.

Participant 8: Most tweets are like whimsical thoughts, what happened at the moment, and you can't really just save it until you get access to a computer, so the phone makes it easier to share what you're thinking.

Participant 7: Or take pictures. If something funny is happening, you don't have your laptop on you and you can't just take a picture with your laptop.

Researcher: How do you check your followers' tweets? The same way?

(affirmative)

Researcher: Why did you join Twitter?

Participant 5: I joined to get away from the people on Facebook.

Researcher: What was wrong with Facebook?

Participant 5: Like he (Participant 2) said earlier, the people who post something every five seconds, and they're just really annoying.

Participant 2: Our parents haven't found out about Twitter yet. So as soon as they found out about – well, first they found out about MySpace. And then we go to Facebook. And they found out what Facebook was, and now we have Twitter, and my dad started following me on Twitter, so I need something new real quick.

Participant 4: I got on Twitter because Tyra Banks said she was doing so much stuff on it. I used to be a big fan of The Tyra Show, and she tweets and was on Twitter, so I got on Twitter because she was doing it.

Participant 8: I got on Twitter because when you're on Facebook, if you friend someone, you have to see what they post. When you start off, you have to see what they post. Now you can hide them from your timeline. But on Twitter, you only have to see who you follow. I don't have to see my mom's annoying Facebook posts on Twitter because she doesn't post on Twitter.

Participant 7: I also think that the – there's 140-characters?

Participant 2: Yeah.

Participant 7: -- that's like a blessing and a curse kind of, because, you know, people can't post long things like they can on Facebook and you can't help but scroll down and see them. It's easier to look past what you don't want to read, even if you're following someone you don't want to.

Participant 9: I joined to follow news at first, and then I started getting into the communication, but just to keep up with updates and everything.

Participant 2: Initially because a teacher told us to. It was part of a participation grade. There was a math teacher, and part of our grade was tweeting her what we learned in class...I had no idea how to use the twitter. It was ridiculous. I didn't get my full participation grade.

Researcher: How many of you have used Twitter for more than a year?

(all hands are raised except Participant 9's)

Researcher: Do you feel like you tweet more than a year ago?

Participant 4: I tweet less. When I first got Twitter, when I was a freshman, I was tweeting up a storm. Tweets – thousands of them. But now I barely tweet. My last tweet was nine days ago. One before that was like 18 days ago.

Researcher: So why don't you tweet as much anymore?

Participant 4: I'm on Instagram now.

Researcher: For those of you who tweet more, why do you tweet more?

Participant 3: More friends are on it.

Participant 7: I remember when I got it. I was like the only one in my group of friends who had it. And there wasn't anything going on. You got on there, and it wasn't as big, and all of a sudden, it kind of blew up. For the longest time I never logged on. I had it, but I would never log on. I think when I finally got back on it, it had been a year since I posted last, and then everybody, like I said, started getting it. It was easier to keep up with.

Participant 3: I would also say because of the iPhone. It's integrated into the new iPhone, so it's easier than waiting until you get to your computer to log in. You can have it all the time. So since it's easier, I'd imagine that's why I do it more.

Participant 6: (I tweet) a lot more. A year ago I was just starting college, so that's when I actually started tweeting. Because I figured out it was important. Beth (a former teacher) told me it was important to start doing it. So I started tweeting a lot more and paying attention to Twitter a lot more. I started following more people, so it was like, kind of getting addicted because you start reading tweets all of the time. That's why.

Participant 8: I think I started again because of work. A year ago, I didn't have followers who followed me for specific reasons. Like now, I'm a sports writer who writes for a website covering the Braves, so I have Braves' fans who follow me, so I tweet news about the Braves. Same for politics. I have people who follow me just because I worked on the campaign.

Researcher: Did anyone have Twitter in high school?

(Participant 8, Participant 1, Participant 7, Participant 5 affirmative)

Researcher: Do you feel more open to discuss your opinion on Twitter now than when you first started your account?

Participant 1: My opinion hasn't changed. I really don't feel that comfortable talking about anything, and on Twitter especially.

Participant 2: Yeah, I'm an opinionated person. If you're on Twitter and you post something about what you think. First of all, they're following you, so they've got to care about what you think unless they're following you because they think you're ridiculous. If they've got something to say, as long as it's credible, then you can start a debate with them.

Researcher: What are you most interested in reading about on Twitter?

Participant 1: I follow some motivational running quote sites and Men's Health and some healthy eating Twitters. And I follow a lot of my friends.

Participant 4: We call it lurking. When you lurk is when you go on everybody else's page to see what they're saying. You can find out anything about anybody. People write their lives on Twitter.

Participant 2: Most recently, my new favorite thing on Twitter is Muggle Hustle....There's this guy who's read the Harry Potter books, and he adds commentary to the books...(12:30) That and then when celebrities do silly things...I follow Chelsea Handler. She's my idol.

Researcher: What are you most interested in reading about on Twitter as far as news is concerned?

Participant 9: I mainly follow stuff about Tech.

Participant 2: I follow CNN Money.

Participant 3: I only care about the breaking news, if it's something major happening. I don't care about somebody getting their hair cut.

Participant 6: I follow the New York Times.

Participant 1: I follow Piers Morgan; he's awesome.

Researcher: So do you follow news outlets or specific journalists?

Participant 1: As long as they're really one-sided and liberal, I'll follow them.

Participant 8: I usually follow the journalists.

Researcher: If a media outlet or journalist posts a link, do you often follow that link?

Participant 6: (shakes her head) Too lazy.

Participant 2: Now, even Instagram has added the links now. You can't pull it up. It used to show you the picture. You can't just look at the picture. I never see anyone's Instagram pictures because I just don't want to hit the link. You've got to wait for it to load.

Participant 1: You have a much higher chance of me looking at your picture if it says TwitPic instead of Instagram.

Participant 2: If it's a link, like – this is a bad example – but TMZ, if it's one of those where every time you get on TMZ it shows you a summary. It's not just the link; it shows you a summary and the article title, and then if that's interesting, then I'll hit it. But if it's just a link, no, I'm not going to open it.

Participant 8: Most of the times you can figure out what the link is about off the description they put in with the links. There's no point to read the deep details.

Researcher: Do you often view media outlets'/journalists' pictures they post on Twitter?

Participant 1: Depends if it's a TwitPic.

Researcher: Does that go with your friends too?

(Participant 6, Participant 1, and Participant 2 nod yes; Participant 2 says “yes.”)

Participant 1: It depends on how much I like them. I have to like you a lot to view an Instagram picture.

Participant 3: Depends on how catchy the headline is.

Participant 2: Yeah, like what your tweet is.

Participant 6: I have to care a lot about what that person is saying.

Researcher: Why do you add links or pictures to your tweets?

Participant 4: I add mine because my Instagram is integrated with my Twitter. I have the option of, “Do you want to add this on Twitter?” And I'm like, yes, I want to put that on Twitter, too. But that's really the only time I add pictures.

Participant 2: Unless it's something ridiculous, like you're out one night and you see something and you, like, see this guy passed out like in the middle of the bar. He just did not care. He fell asleep like in the middle of the bar – that's just funny. You're like, alright. (Makes hand motion like he's taking a picture with his smart phone.) That's everywhere now. Stuff like that.

Researcher: How do you choose what to retweet?

Participant 2: If it's hilarious or if it's a really good piece of information.

Participant 6: If I want someone else to see it, and I'm like, oh, I thought of that person, I'll retweet it usually and be like, I retweeted something funny.

Participant 1: When people say really nice things about me, I always retweet so that people can see that other people said really nice things about me.

Participant 4: I like to retweet when I'm too lazy to tweet. I feel like if people are saying what I want to say, I can just retweet what they said. I don't have to type myself.

Participant 2: Or like, oh, that was basically what I was going to say.

Participant 8: If someone that I follow makes a point before I was able to make it, it's like seceding to them that they beat me to it. So I just retweet them.

Researcher: Do you retweet more from personal sources like friends or media sources?

Participant 4: I would say I retweet more from my friends. I'm following more people that I know than celebrities.

Participant 1: Friends and celebrities.

Participant 10: I retweet everything from my sorority. Most of the time they have good, inspirational messages, and it's like a good PR tool to let people see that it's more than parties that we do. We have something that we're actually founded on.

Participant 8: I mostly retweet journalists. Pretty much the whole reason I'm on Twitter is for sports news and other breaking news. If I see something like, here for the past few weeks with the coaching search at Tech, anything about someone who was interviewing, I would retweet. And those are usually reported by journalists, not full media outlets.

Researcher: What purpose does your retweets serve for your followers?

Participant 2: So say there's a hot topic event that happened, like something that's very debatable, like a presidential election or gun control or whatever the issue is at the time, and you're trying to get your point across, and you're like, "Oh this is all I've got, I've already said everything I want to say. Now, here's why I'm saying it." It's kind of like citing your sources a little bit.

Participant 6: Sometimes I'll tweet something and then a couple of days later a news organization will put something out that says the same thing that I did but with the fact finding, so I'll retweet it.

Participant 2: And be like, "Yeah, I was right."

Participant 6: Right.

Researcher: Would you rather retweet what a media outlet has posted or tweet something original about a news event?

Participant 2: Something original. Retweeting, we've already established, is when we're lazy. And I don't like to be portrayed as lazy. I like to add my own commentary or opinion in it.

Participant 1: I would rather them see my feature than someone else's.

Participant 8: Most of the times, when you tweet your own personal opinion, it warrants discussion more than if you tweet something from a media outlet. Because if I tweet something about a news story that's happened, I like when people I know and follow and who follow me tweet me back and we can talk about it, discuss it. It makes it more interesting.

Participant 10: See, I'm kind of the opposite because I'm not about to start some Twitter drama or Twitter fights, so I'll just retweet the news source. Don't say anything to me, just so people won't personally attack me on Twitter.

Researcher: Do you like having discussions about topics on Twitter?

Participant 2: Only for so long because – it depends on what the topic is. If you're having a discussion, don't let it go more than three messages because then you can just start texting someone. Because you look like a middle schooler and stupid. And if you get into a fight with someone, I would so much rather say, let's go hash this out over margaritas or something like that. Let's not do this on Twitter. Everyone can see it, and we just look stupid.

Researcher: How many of you follow media outlets or journalists?

(all hands raised)

Participant 3: A few. Nothing major.

Researcher: Why do you follow media outlets?

Participant 7: It's easier than watching TV. It's just quick, and it's to the point. Instead of like a lot of stuff, it goes back to that 140 characters. It's something real quick, and they have to get their point across, and it's something easier to look at. If it catches your attention, you click on it; if not, just scroll past it.

Participant 6: Twitter is the fastest way to get news.



Participant 2: It's the best way, especially since no one is ever home really. We're always in school. We're sitting in class, and we're going to get on Twitter, and we're like, oh, look what just happened in the world.

Participant 1: I really enjoy Piers' commentary, and I don't have to sit there and watch his whole show to get it.

Participant 2: That's a really good one, too, just highlighting clips of what someone said. If you watch a specific journalist or commentator, then you're like, "Oh, I don't have to watch the show tonight to know what the topic of discussion was."

Participant 8: All the major media outlets, like CNN has and Fox News has, and I'm pretty sure MSNBC has, where they've started separate accounts for separate subjects. Even AP does it. There's AP politics, the AP Top 25, and if I watch the news, it's usually for one thing. I don't care what's going on with celebrities. If I want to know what's going on with a celebrity, I'll follow that celebrity. It's nice to have that specified thing, and I don't have to worry about what's going on in China because I'm not following AP world.

Researcher: How do you choose which media outlets to follow?

Participant 1: The ones that are the most liberal.

Researcher: So the ones that agree with you?

Participant 1: Yeah.

Participant 2: Both, because I know someone who follows CNN just because she wants to be a brat, and she'll add her own, this is why they're wrong thing to it. But then again, I follow Fox because if they're not talking about politics or public relations, then it's a good media source. I follow both because one is kind of pandering to what they're mostly paid to pander to, so if you listen to both, you might get some summation of the truth from the two of them.

Researcher: Do you like it when media outlets live tweet events?

Participant 2: Yes.

Participant 7: Yes.

Participant 3: Bores the hell out of me. I don't need to know all of that. If I wanted to know all of that, I would watch it. That's usually when I unfollow them. I want a little bit of information. That's what Twitter is for. There's 140 characters; I want a little bit of information. If I wanted to know all of that, I'd watch it on TV.

Participant 6: If I'm at work and I can't watch TV, I like it because then I got the essential parts of it. I really like it.

Participant 2: And not everyone has cable, so you can just get on Twitter in case something's happening.

Participant 1: I like it because I like to read more than I like to listen and I can read faster than people can talk. And whenever my president gives speeches, I like to just see the highlights.

Participant 9: Like for one of the Tech football games, we were at a banquet, and I didn't want to pull up ESPN because Patrick Walsh was tweeting a lot faster. It was just easier to follow that.

Participant 8: Even with the basketball games, Tech's basketball department tweets out basically play-by-plays and it's a lot easier to follow that if I'm not able to watch TV or listen to the radio or something like that.

Researcher: Do you often respond to something a media outlet/journalist has posted?

Participant 2: No. I mean, there's not really a point. Very rarely because there's such a little chance that you're going to get it, and you look kind of like, "Why are you talking to a media outlet if they're not going to respond to you?"

Participant 6: I'm more likely to quote tweet them and add my own whatever at the end. A lot of news organizations report really stupid stuff, and sometimes I'll quote tweet and put, "Are you serious?" at the end. I'm more likely to quote tweet than respond to them.

Participant 8: I'm more willing to respond to a journalist than a media outlet because a media outlet, they don't look at responses. Most of the time they type in what they have to tweet and then go on to the next thing. Journalists actually look at it and most of the times they'll tell you why they feel a certain way or something like that.

Participant 3: I'd agree with that. I think most of them are only concerned with numbers. They want to make sure they're getting their raise.

Participant 1: I quote tweet a lot so everyone can see how I feel about certain things. I'll respond to journalists because, you know, there's always that off-chance Piers is going to respond, but it hasn't happened yet.

Researcher: How excited would you be if a journalist retweeted you?

Participant 2: It was the best day of my life because I have talked to every person at the Chelsea Lately staff except Chelsea Handler because I don't think she handles her own Twitter. And I've talked to someone else, I can't remember who, but it was the best day ever.

Participant 6: Nikki Minaj tweeted me once. And I cried.

Participant 3: It's not a big deal to me. They're just another person. I've sat there and had conversations with some before.

Researcher: Do you feel Twitter allows you to share your opinion freely about news events?

Participant 2, Participant 1: Yes.

Participant 8: Sometimes you don't have to worry about people bashing you because there's so many people on Twitter. I follow over 600 people. So the chance of me seeing Participant 1 or Participant 6 or someone's views on a certain event are very slim to none because there's so much stuff popping up.

Participant 2: Twitter is so big. Everyone is on Twitter, and Facebook is so small. On Facebook, everyone sees it and then you see what they say about you and there's the liking and the commenting and the parents' friends that you're obligated to add, so you've got to deal with that. But on Twitter, you're throwing a needle in a haystack.

Participant 6: And if you don't like someone, you just block them. You don't have to see their stuff anymore.

Participant 3: I wouldn't necessarily say Twitter's bigger. I just think more people are using it because it is shorter. You can only put the 140 characters. So I wouldn't say it's bigger, because Facebook's definitely bigger if you're looking at the number of people on it. When you're looking at Twitter, you're probably looking at more tweets than posts on Facebook, and I think that has a lot to do with the quickness of Twitter.

Participant 6: If you post 35 Facebook stats a day, you are – you just don't do that. So on Twitter, you can tweet 35 times a day, and that's normal. I think that's why people on Twitter are a lot more apt to discuss because you can say a lot more without being judged.

Researcher: If media outlets asked for your opinion more, would you respond more?

Participant 1: Yes. I really like to think that they value my opinion.

Participant 6: I've been published in USA Today for stuff, when I responded. This summer I was. And they're serious. If they're asking for sources or asking for people, they'll respond to you.

Researcher: How did that make you feel, being in USA Today?

Participant 6: That was pretty awesome. I was in there for looking like my boyfriend. They're like, "We're looking for couples that look alike," and I tweeted a picture of us. And they called me. They asked for my number and called me and interviewed me. And I was in USA Today.

Researcher: How do you choose which news events to tweet about?

Participant 2: Controversial. If they're controversial or just completely ridiculous. It's really funny. Like the biggest thing right now is gun control, and you're either super there or you're super here. If you find something that you're like, "That's evidence for what I want," and say I'm in the south and people like guns and I'm just like whatever about it, but you know that's going to get a rise out of somebody, you just throw it in there and watch what happens.

Participant 6: I like tweeting more about stuff when I'm in the middle so I can actually engage in a good conversation on Twitter instead of just ticking a lot of people off. That's usually when I talk about stuff.

Participant 8: I usually only tweet about big events that interest me. But if there's something crazy going on, I'll usually tweet about it, but mostly to make a joke about it, like the Manti Te'o thing right now is hilarious. If you look on Twitter, so many people are tweeting about imaginary girlfriend jokes. If there's something ridiculous like that, I tweet jokes about it but that's it.

Researcher: Is anyone interested in tweeting about politics?

Participant 2: Only during election season.

Participant 1: I tweeted Michelle (Obama) yesterday.

Participant 2: During hot button topics and stuff like that. There was the fiscal cliff, but now everyone's talking about gun control and whenever they were doing the gay marriage thing in Seattle, I was all over that. I'm not going to wake up and be like, "Let's talk about Sarah Palin again."

Participant 8: I usually do because if I'm trying to get a job in politics, I know with the Romney campaign and when I was working at the congressman's office, they'll go look at your Twitter and see if you tweet about politics. And if you do and you tweet things they agree with, then they're more willing to hire you or not ask you to make your Twitter private because then you can tweet about the campaign or you can tweet about the congressman or whatever you're working for. And that gives them positive exposure.

Researcher: Do you like tweeting about sports? Why?

Participant 8: Because sports is the greatest thing in the world.

Participant 3: Just depends. I tweet about Tech because it's my alma mater.

Participant 10: I like to tweet about football because I know what's going on, and I'm a girl. I feel people are impressed by that.

Participant 1: I like to tweet about my university. I like to promote my university, and one of the ways I do that is through sports.

Researcher: What about arts and entertainment?

Participant 2: All over it. I love it.

Participant 1: I was sure to let everybody know Justin Timberlake's new song sucked because I was really disappointed. He's really a great stand-up guy and I was disappointed his song sucked so bad.

Participant 2: You've got to add your opinion to everything you feel passionate about. The new Ke\$ha album? No one liked it. I loved it. I thought it was the best thing in the world. I tore Twitter up over that album. I did a critical analysis of every single song. If it's something you're really passionate about.

Participant 8: I think if someone's going one way and I feel the other way, I'm more willing to tweet about it because you can say why you feel differently.

## APPENDIX E

## DESCRIPTION OF FOCUS GROUP PARTICIPANTS

Participant 1

Male, age 20, political science/journalism major

Participant 2

Male, age 22, junior journalism major

Participant 3

Male, age 32, graduate student in higher education administration

Participant 4

Female, age 21, senior political science/journalism major

Participant 5

Female, age 19, freshman journalism major

Participant 6

Female, age 19, sophomore journalism/political science major

Participant 7

Male, age 21, junior history major

Participant 8

Male, age 20, junior political science/journalism major

Participant 9

Male, age 19, sophomore journalism major

Participant 10

Female, age 20, junior political science major

## APPENDIX F

## INSTITUTIONAL REVIEW BOARD NOTICE OF COMMITTEE ACTION



June 20<sup>th</sup>, 2012

Judith Roberts

Re: HSC Protocol # 12-032 - "Tweets, Tweeteters, and Twitter: Agenda Setting's Effects on Collegiate Students' Participation with Social Media"

Ms. Roberts:

The Marietta College HSC has granted approval for your proposed research. The project has approval for one calendar year from today's date. Should you need to submit any further correspondence regarding this proposal, please include the assigned HSC number.

Good luck with your research,

A handwritten signature in blue ink, appearing to read 'C. Klein', written over the printed name.

Christopher Klein, Ph.D.  
Chair, Human Subjects Committee  
(740)376-4795  
clk002@marietta.edu

CHARTERED IN 1835

---

215 Fifth Street • Marietta, Ohio 45750 • 740.376.4000 • [www.marietta.edu](http://www.marietta.edu)



LOUISIANA TECH  
UNIVERSITY

OFFICE OF UNIVERSITY RESEARCH

MEMORANDUM

TO: Ms. Judith Roberts

FROM: Barbara Talbot, University Research

SUBJECT: Human Use Committee Review

DATE: June 11, 2012

RE: Approved Continuation and Revision of Study HUC 889

TITLE: **"Tweets, Tweeters, and Twitter: Agenda Settings Effects on Collegiate Students' Participation with Social Media"**

**HUC 889**

The above referenced study has been approved as of June 11, 2012 as a continuation of the original study that received approval on September 14, 2011. **This project will need to receive a continuation review by the IRB if the project, including collecting or analyzing data, continues beyond September 14, 2013.** Any discrepancies in procedure or changes that have been made including approved changes should be noted in the review application. Projects involving NIH funds require annual education training to be documented. For more information regarding this, contact the Office of University Research.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of the study. If changes occur in recruiting of subjects, informed consent process or in your research protocol, or if unanticipated problems should arise it is the Researchers responsibility to notify the Office of Research or IRB in writing. The project should be discontinued until modifications can be reviewed and approved.

If you have any questions, please contact Dr. Mary Livingston at 257-4315.

A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

P.O. BOX 3092 • RUSTON, LA 71272 • TELEPHONE (518) 257-5075 • FAX (518) 257-5079  
AN EQUAL OPPORTUNITY UNIVERSITY



Email correspondence with Arizona State University –

Dear Judith Roberts,

Thank you for the attachments. ASU can be a recruitment site for the project. This will not require oversight from the ASU IRB.

Sincerely,

Tiffany

Tiffany Dunning  
IRB Coordinator

Office of Research Integrity and Assurance  
Center Point, 660 S. Mill Avenue Suite 315  
Arizona State University  
Tempe, AZ 85287-6111 (Mail Code 6111)  
Telephone: 480 639-7396

Fax: 480 965-7772  
<http://researchintegrity.asu.edu/humans>

From: Judith Roberts [mailto:jroberts@latech.edu]  
Sent: Tuesday, June 12, 2012 10:00 AM  
To: Tiffany Dunning  
Subject: Re: IRB exemption

Tiffany, here is my IRB approval memo as well as my IRB submission from my home institution. If you need anything else, please let me know. I look forward to hearing from you!

--

Judith Roberts  
Instructor/Senior Writing Associate  
Journalism Department/News Bureau  
Louisiana Tech University  
P.O. Box 10258  
Ruston, LA 71272  
(318) 257-4907  
(318) 257-4558 (Fax)

Email correspondence with North Carolina State University --

Date: Fri, 15 Jun 2012 09:18:21 -0400 [06/15/12 8:18:21 AM CDT]  
From: Carol Mickelson <cmickel@ncsu.edu> United States  
To: Judith Roberts <jroberts@latech.edu>

Subject: Re: IRB approval?

Judith,

If you have Mr. Reavis forward an email from you with your recruitment script, consent, and survey and have the participants send the responses back to you that will remove Mr. Reavis from the equation, he would not be considered as engaged, and you would not need NCSU IRB approval.

Also -- have Mr. Reavis note he is not involved in this research, just forwarding the email, and he will not know who chooses to participate or not so the students choice to participate, or not, will not affect their standing or grade in the class.

I hope that helps.

Carol

## REFERENCES

- Adults get social. (2009). *Communications of the ACM*, 52(3), 17.
- Ahlers, D. (2006). News consumption and new electronic media. *The Harvard International Journal of Press/Politics*, 11(1), 29-52.
- Althaus, S.L., & Tewksbury, D. (2002). Agenda setting and the “new” news: Patterns of issue importance among readers of the paper and online versions of the New York Times. *Communication Research*, 29(2), 180-207.
- An, S.K., & Gower, K.K. (2009). How do the news media frame crises? A content analysis of crisis news coverage. *Public Relations Review*, 35(2), 107-112.
- Baran, S.J., & Davis, D.K. (2006). *Mass Communication Theory: Foundations, Ferment, and Future*. 4<sup>th</sup> ed. Belmont, CA: Thomson-Wadsworth.
- Baumgartner, F., Boydston, A., & Wolfe, M. (2009). Comparing front and inside page newspaper coverage in public policy debates. Paper presented at Midwestern Political Science Association, Chicago, IL.
- Behr, R., & Iyengar, S. (1985). TV news, real-world clues and changes in the public agenda. *Public Opinion Quarterly*, 49(1), 38-57.
- Bender, J.R., Davenport, L.D., Drager, M.W., & Fedler, F. (2012). *Reporting for the Media*. 10<sup>th</sup> ed. New York, NY: Oxford University Press.
- Bennett, S. (2012). “Twitter On Track For 500 Million Total Users By March, 250 Million Active Users By End Of 2012.” Media Bistro. Retrieved from [http://www.mediabistro.com/alltwitter/twitter-active-total-users\\_b17655](http://www.mediabistro.com/alltwitter/twitter-active-total-users_b17655) on 31 Jan. 2013.
- Boczkowski, P.J., & Peer, L. (2011). The choice gap: The divergent online news

- preferences of journalists and consumers. *Journal of Communication*, 61(5), 857-876.
- Bratton, K.A., & Haynie, K.L. (1999). Agenda setting and legislative success in state legislatures: The effects of gender and race. *The Journal of Politics*, 61(3), 658-659.
- Brenner, J. (2013). Pew Internet: Social Networking. Pew Internet and American Life Project. Retrieved March 3, 2013, from <http://pewinternet.org/Commentary/2012/March/Pew-Internet-Social-Networking-full-detail.aspx>
- Brewer, P. R., & Cao, X. (2006). Candidate appearance on soft news shows and public knowledge about primary campaigns. *Journal of Broadcasting & Electronic Media*, 50(1), 18-35.
- Chen, G.M. (2011). Tweet this: A uses and gratifications perspective on how active Twitter use gratifies a need to connect with others. *Computers in Human Behavior*, 27(2), 755-762.
- Chen, J., Nairn, R., Nelson, L., & Chi, E. H. (2010). Short and tweet: experiments on recommending content from information streams. Accepted for CHI 2010.
- Clavio, G. (2011). Social media and the college football audience. *Journal of Issues in Intercollegiate Athletics*, 4, 309-325.
- Cohen, B.C. (1963). *The Press and Foreign Policy*. Princeton, NJ: Princeton University Press.
- Coleman, R., & McCombs, M. (2007). The young and agenda-less? Exploring age related differences in agenda setting on the youngest generation, baby boomers,

- and the civic generation. *Journalism and Mass Communication Quarterly*, 84(3), 495-508.
- Diddi, A., & LaRose, R. (2006). Getting hooked on news: Uses and gratifications and the formation of news habits among college students in an Internet environment. *Journal of Broadcasting and Electronic Media*, 50(2), 193-210.
- Duggan, M., & Brenner, J. (2013). The Demographics of Social Media Users – 2012. Pew Internet and American Life Project. Retrieved March 3, 2013, from <http://www.pewinternet.org/Reports/2013/Social-media-users.aspx>
- Eberhardt, D.M. (2007). Facing up to Facebook. *About Campus*, 12(4), 18-26. Retrieved Feb. 21, 2011, from EBSCOhost database.
- Farhi, P. (2009). The Twitter explosion. *American Journalism Review*, 31(3), 26-31.
- Freeman, M., & Berger, L. (2011). The issue of relevance of agenda-setting theory to the online community. *Meta-Communicate*, 1(1), 1-22.
- Fortunato, J.A. (2005). *Making Media Content: The Influence of Constituency Groups on Mass Media*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Funkhouser, G.R. (1973). The issue of the sixties: An exploratory study in the dynamics of public opinion. *Public Opinion Quarterly*, 37(1), 62-75.
- Gant, S. (2011). *We're All Journalists Now: The Transformation of the Press and Reshaping of the Law in the Internet Age*. New York, NY: Free Press.
- Gerbner, G. (1990). Epilogue: Advancing on the Path of Righteousness (Maybe). In N. Signorielli and M. Morgan (Eds.) *Cultivation Analysis: New Directions in Media Effects Research*. Newbury Park, CA: Sage.
- Greengard, S. (2009). The First Internet President. *Communications of the ACM*, 52(2),

16-18.

Grondin, D. (2012). Understanding Culture Wars through Satirical/Political Infotainment TV: Jon Stewart and The Daily Show's Critique as Mediated Re-enactement of the Culture War. *Canadian Review of American Studies*, 42(3), 347-370.

Hargittai, E., & Litt, E. (2011). The tweet smell of celebrity success: Explaining variation in Twitter adoption among a diverse group of young adults. *New Media & Society*, 13(5), 824-842.

Hampton, K.N., Goulet, L.S., Purcell, K., & Rainie, L. (2011). Social networking sites and our lives. *Pew Internet and American Life Project*. Retrieved January 16, 2012, from <http://pewinternet.org/~media/Files/Reports/2011/PIP%20-%20Social%20networking%20sites%20and%20our%20lives.pdf>

Henke, L.L. (1985). Perceptions and use of news media by college students. *Journal of Broadcasting and Electronic Media*, 29(4), 431-436.

Hill, D.B. (1985). Viewer characteristics and agenda setting by television news. *The Public Opinion Quarterly*, 49(3), 340-350.

Hughes, D.J., Batey, M., Lee, A. & Rowe, M. (2011). A tale of two sites: Twitter vs. Facebook and the personality predictors of social media usage. *Computers in Human Behavior*, 28(2), 561-569.

“In Changing News Landscape, Even Television is Vulnerable.” (2012). Pew Research Center. Retrieved March 3, 2013, from <http://www.peoplepress.org/2012/09/27/about-the-media-consumption-survey-data/>

Iyengar, S. & Kinder, D.R. (1987). *News that matters*. Chicago, IL: University of Chicago Press.

- Jones, S. (2002). The Internet goes to college: How students are living in the future with today's technology. *Internet & American Life* from Pew Internet and American Life Project. Retrieved 26 April 2012 from <http://eric.ed.gov:80/PDFS/ED472669.pdf>
- Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning*, 27(2), 119-132.
- Kaid, L.L., Landreville, K., LeGrange, A.G., Postelnicu, M., & Yun, H.J. (2007). The effects of political advertising on young voters. *American Behavioral Scientist*, 50(9), 1137-1151.
- Katz, E. (1957). The two-step flow of communication: an up-to-date report on a hypothesis. *Public Opinion Quarterly*, 21(1), 61-78.
- Katz, E., & Lazarsfeld, P.F. (1955). *Personal Influence: The Part Played by People in The Flow of Communications*. New York, NY: Free Press.
- Kiousis, S., McDevitt, M., & Wu, X. (2006). The genesis of civic awareness: Agenda setting in political socialization. *Journal of Communication*, 55(4), 756-774.
- Klapper, J.T. (1960). *The Effects of Mass Communication*. New York: Free Press.
- Kim, S.J., Choi, D.H., Han, M., & Kim, J.N. (2012). Attribute agenda setting, priming and the media's influence on how to think about a controversial issue. *International Communication Gazette*, 74(1), 43-59.
- Kim, Y. M. (2008). Where is my issue? The influence of news coverage and personal issue importance on subsequent information selection on the Web. *Journal of Broadcasting & Electronic Media*, 52(4), 600-621.
- Kwak, H., Lee, C., Moon, S., & Park, H. (2010). *What is Twitter, a social network or a*

*news media?* In M. Rappa and P. Jones' (Ed.) Proceedings of the 19th international conference on World Wide Web (pp. 591-600). New York, NY: ACM.

LaPoe, B.R. (2008). Gender and racial cues during the 2008 Democratic Party's presidential candidate nomination process: Social responsibility in the 21<sup>st</sup> century. (Master's thesis). Retrieved from EBSCO database on 16 April 2012. No. 1458744.

Lariscy, R.W., Avery, E.J., Howes, P., & Sweetser, K.D. (2009). An examination of the role of online social media in journalists' source mix. *Public Relations Review*, 35(3), 314-316.

Lazarsfeld, P.F. (1948). *The people's choice: How the voter makes up his mind in a presidential campaign*. New York, NY: Columbia University Press.

Lee, G. (2010). Who let priming out? Analysis of first- and second-level agenda setting effects on priming. *International Communication Gazette*, 72(8), 759-776.

Lee, C.S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior*, 28(2), 331-339.

Lenhart, A. (2009). Twitter and Status Updating: Demographics, Mobile Access and News Consumption. Pew Internet and American Life Project. Retrieved March 3, 2013, from <http://www.pewinternet.org/Presentations/2009/44--Twitter-and-status-updating.aspx>

Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). Social media and mobile Internet use among teens and young adults. *Pew Internet & American Life Project*. Retrieved 26 April 2012 from <http://web.pewinternet.org/~media>



/Files/Reports/2010/PIP\_Social\_Media\_and\_Young\_Adults\_Report\_Final\_with\_t  
oplines.pdf

Lewin, K. (1951). *Field Theory in Social Science: Selected Theoretical Papers*. New York, NY: Harper & Brothers Publishers.

Lim, S., Cha, S.Y., Kim, J., Lee, I., & Park, C. (2011). Idioculture in crowd computing: A focus on group interaction in an event-driven social media system. *International Journal of Human-Computer Studies*, 69(10), 632-646.

Long, N.E. (1958). The local community as an ecology of games. *American Journal of Sociology*, 64(3), 251-261.

Lopez-Escobar, E., Llamas J.P., & McCombs, M. (1998). Agenda setting and community consensus: First and second level effects. *International Journal of Public Opinion Research*, 10(4), 335-348.

Lovejoy, K., Saxton, G.D., & Waters, R.D. (2012). Engaging stakeholders through Twitter: How nonprofit organizations are getting more out of 140 characters or less. *Public Relations Review*, 38(2), 313-318.

Madden, M., & Zickuhr, K. (2011). 65% of online adults use social networking sites. *Pew Internet and American Life Project*. Retrieved January 16, 2012, from <http://www.pewinternet.org/~media/Files/Reports/2011/PIP-SNS-Update-2011.pdf>

Maier, S. (2010). All the news fit to post? Comparing news content on the web to newspapers, television, and radio. *Journalism and Mass Communication Quarterly*, 87(3/4), 548-562.

Matthews, J. (2009). "Making it our own": BBC Newsround professionals and their

efforts to build a news agenda for the young. *Television New Media*, 10(6), 546-563.

McCombs, M. (2004). *Setting the agenda: the mass media and public opinion*.

Cambridge, MA: Polity Press.

McCombs, M.E., & Estrada, G. (1997). The news media and the pictures in our heads.

In S. Iyengar & R. Reeves (Eds.), *Do the Media Govern? Politicians, Voters, and Reporters in America*, pp. 237-247. Thousand Oaks, CA: Sage.

McCombs, M., & Reynolds, A. (2009). How news shapes our civic agenda. *Media*

*Effects: Advances in Theory and Research*. 3<sup>rd</sup> edition. Eds. Jennings Bryant and M.B. Oliver. New York, NY: Routledge.

McCombs, M.E., & Shaw, D.L. (1972). The agenda-setting function of mass media.

*Public Opinion Quarterly*, 36(2), 176-187.

McCombs, M.E., & Shaw, D.L. (1993). The evolution of agenda-setting research:

twenty-five years in the marketplace of ideas. *Journal of Communication*, 43(2), 58-67.

McLeod, J., Becker, L.B., & Byrnes, J.E. (1974). Another look at the agenda-setting

function of the press. *Communication Research*, 1(2), 131-165.

McManus, J.H. (1994). *Market Driven Journalism*, Beverly Hills, CA: Sage.

McMillan, S. J. (2000). The microscope and the moving target: The challenge of

applying content analysis to the World Wide Web. *Journalism and Mass Communication Quarterly*, 77(1), 80-98.

Mencher, M. (2003). *News Reporting and Writing*. 9th ed. Boston, MA: McGraw-Hill.

Meraz, S. (2011). Using time series analysis to measure intermedia agenda-setting

- influence in traditional media and political blog networks. *Journalism and Mass Communication Quarterly*, 88(1), 176-194.
- Meraz, S. (2009). Is there an elite hold? Traditional media to social media agenda setting influence in blog networks. *Journal of Computer-Mediated Communication*, 14(3), 682-707.
- Morris, M. R., Panovich, K., & Teevan, J. (2010, April). What do people ask their Social networks, and why?: A survey study of status message A & A behavior. In *Proceedings of the 28th international conference on Human factors in computing systems* (pp. 1739-1748). ACM.
- Muralidharan, S., Patterson, D., Rasmussen, L., & Shin, J.H. (2011). Hope for Haiti: An analysis of Facebook and Twitter usage during the earthquake relief efforts. *Public Relations Review*, 37(2), 175-177.
- Palser, B. (2009). Hitting the tweet spot. *American Journalism Review*, 31(2), 54.
- Peter, J., & DeVreese, C.H. (2003). Agenda-rich, agenda-poor: A cross-national comparative investigation of nominal and thematic public agenda diversity. *International Journal of Public Opinion Research*, 15(1), 44-64.
- Petrina, S., Feng, F., & Kim, J. (2008). Researching cognition and technology: how we learn across the lifespan. *International Journal of Technology & Design Education*, 18(4), 375-396.
- Pew Research Center for the People & the Press. (2011). Internet Gains on Television as Public's Main News Source. Retrieved Feb. 21, 2011, from <http://pewresearch.org/pubs/1844/poll-main-source-national-international-news-internet-television-newspapers>

- Picard, A. (2011). The history of Twitter, 140 characters at a time. *The Globe and Mail*. Retrieved January 12, 2012, from <http://www.theglobeandmail.com/news/Technology/tech-news/the-history-of-twitter-140-characters-at-a-time/Article1949299/>
- Price, V., & Tewksbury, D. (1997). News values and public opinion: A theoretical account of media priming and framing. In G. A. Barrett & F. J. Boster (Eds.), *Progress in communication sciences: Advances in persuasion*, p. 173–212. Greenwich, CT: Ablex..
- Raacke, J., & Bonds-Raacke, J. (2008). MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites. *CyberPsychology and Behavior*, 11(2), 169-174. Retrieved Sept. 29, 2009, from EBSCOhost database.
- Ragas, M.W., & Roberts, M.S. (2009). Agenda setting and agenda melding in an age of horizontal and vertical media: A new theoretical lens for virtual brand communities. *Journalism and Mass Communication Quarterly*, 86(1), 45-64.
- Ramsden, A. (2008). How and why are people using Twitter: A small group study. Discussion Paper. University of Bath, Bath, UK.
- Reese, S.D., Gandy, O.H., & Grant, A.E. (2001). *Framing Public Life: Perspectives on Media and Our Understanding of the Social World*. Oxford : Taylor & Francis.
- Rich, C. (2003). *Writing and Reporting News: A Coaching Method*. 4th ed. Belmont, CA: Thomson-Wadsworth.
- Riffe, D., Fico, F.G., & Lacy, S. (2005). *Analyzing Media Messages: Using Quantitative Content Analysis in Research*. 2<sup>nd</sup> ed. Mahwah, NJ: Lawrence Erlbaum Associates.

- Roberts, M., Dzwo, T.H., & Wanta, W. (2002). Agenda setting and issue salience online. *Communication Research*, 29(4), 452-465.
- Sanderson, J., & Cheong, P.H. (2010). Tweeting prayers and communicating grief over Michael Jackson online. *Bulletin of Science, Technology, and Society*, 30(5), 328-340.
- Sayre, B., Bode, L., Shah, C., Shah, D., & Wilcox, D. (2010). Agenda setting in a digital age: tracking attention to California Proposition 8 in social media, online news, and conventional news. *Policy & Internet*, 2(2), 7-32.
- Scheufele, D.A. (2000). Agenda-setting, priming, and framing revisited: Another look at cognitive effects of political communication. *Mass Communication and Society*, 3(2-3), 297-316.
- Schultz, B., & Sheffer, M.L. (2011). Factors influencing sports consumption in the era of new media. *Web Journal of Mass Communication Research*, 37. Retrieved March 20, 2012, from <http://www.scripps.ohiou.edu/wjmcr/vol37/>
- Schultz, F., Goritz, A., & Utz, S. (2011). Is the medium the message? Perceptions of and reactions to crisis communication via Twitter, blogs, and traditional media. *Public Relations Review*, 37(1), 20-27.
- Severin, W.J., & Tankard, J.W. (2001). *Communication Theories: Origins, Methods, and Uses in the Mass Media*. 5<sup>th</sup> edition. New York, NY: Longman.
- Shaw, E.F. (1979). Agenda setting and mass communication theory. *International Communication Gazette*, 25(2), 96-105.
- Sheaffer, T. (2007). How to evaluate it: The role of story-evaluative tone in agenda setting and priming. *Journal of Communication*, 57(1), 21-39.

- Sheffer, M.L., & Schultz, B. (2010). Paradigm shift or passing fad? Twitter and sports journalism. *International Journal of Sport Communication*, 3(4), 472-484.
- Shoemaker, P.J. (1991). *Gatekeeping*. Newbery Park, CA.: Sage Publications.
- Shoemaker, P.J., & Reese, S.D. (1991). *Mediating the Message: Theories on Influence on Mass Media Content*. New York, NY: Longman Publishing Company.
- Simon, J. (2010). Repression goes digital. *Columbia Journalism Review*, 48(6), 12-14.
- Smith, A., & Brenner, J. (2012). Twitter Use 2012. Pew Internet and American Life Project. Retrieved March 3, 2013, from <http://pewinternet.org/Reports/2012/TwitterUse-2012/Findings.aspx>
- Smith, A., & Rainie, L. (2010). Who tweets? *Pew Internet & American Life Project*. Retrieved from <http://pewresearch.org/pubs/1821/twitter-users-profile-exclusive-examination> on Feb. 21, 2011.
- Smith, D., & Warshaw, L. (2012). 5. Collective Action: Flash Mobs, Activism, and Micro-blogging. *Participation Literacy Spring 2012*, 38.
- Son, Y.J., & Weaver, D.H. (2005). Another look at what moves public opinion: Media agenda setting and polls in the 2000 U.S. election. *International Journal of Public Opinion Research*, 18(2), 174-197.
- Spencer, J. (2007). Found in MySpace. *American Journalism Review*, 29(5), 36-39. Retrieved Sept. 29, 2009, from EBSCOhost database.
- Strömbäck, J., & Kioussis, S. (2010). A new look at agenda-setting effects – comparing the predictive power of overall political news consumption and specific news media consumption across different media channels and media types. *Journal of Communication*, 60(2), 271-292.

- Sweetser, K.D., Golan, G.J., & Wanta, W. (2008). Intermedia agenda setting in television, advertising, and blogs during the 2004 election. *Mass Communication and Society, 11*(2), 197-216.
- Tewksbury, D. (2006). What do Americans really want to know? Tracking the behavior of news readers on the Internet. *Journal of Communication, 53*(4), 694-710.
- Thiriot, S., & Kant, J.D. (2008). Using associative networks to represent adopters' beliefs in a multiagent model of innovation diffusion. *Advances in Complex Systems, 11*(2), 261-272.
- Twitaholic. (2011). The Twitaholic.com Top 100 Twitterholics based on Followers. <http://twitaholic.com>
- Twitter.com/about. (2011). About Twitter. Retrieved from <https://www.twitter.com/about>
- Uscinski, J.E. (2009). When does the public's issue agenda affect the media's issue agenda (and vice versa)? Developing a framework for media-public influence. *Social Science Quarterly, 90*(4), 796-815.
- Weaver, D.H. (2007). Thoughts on agenda setting, framing, and priming. *Journal of Communication, 57*(1), 142-147.
- Westerman, D., Spence, P.R., & Van der Heide, B. (2012). A social network as information: The effect of system generated reports of connectedness on credibility on Twitter. *Computers in Human Behavior, 28*(1), 199-206.
- White, D.M. (1950). The gate-keeper: A case study in the selection of news. In Berkowitz's (1997) *Social Meaning of News*. Thousand Oaks, CA.: Sage Publications.
- Whittingham, J., Kok, G., Ruiter, R.A.C., & Zimbile, F. (2008). Experimental pretesting

of public health campaigns: A case study. *Journal of Health Communication*, 13(3), 216-229.

Williamson, K., Hider, P., Lie, Y.H., & Qayyum, A. (2012). Young adults and everyday-life information: *The role of news media. Library and Information Science Research*, 34(4), 258-264.

Wimmer, R.D., & Dominick, J.R. (2003). *Mass Media Research: An Introduction*. 7<sup>th</sup> ed. Belmont, CA.: Thomson-Wadsworth.

Wood, D. (2012). Joe Paterno: Twitter mourns passing of coaching legend. *Bleacher Report*. Retrieved January 25, 2012, from <http://bleacherreport.com/articles/1034068-joe-paterno-twitter-mourns-passing-of-coaching-legend>

Yoon, M. (1998). Testing the agenda-setting function of world-wide-web newspapers. (Master's thesis). No. 39947986.