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Like and Share: The Effectiveness of Social Media on University Student Response Behavior during Emergency Events

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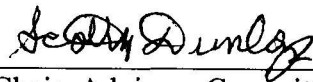
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The Effectiveness of Social Media on University Student Response Behavior during Emergency
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By

Ashley Brooke Collett

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The Effectiveness of Social Media on University Student Response Behavior during
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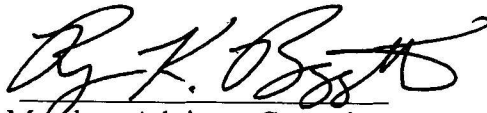Bachelor of Science
Eastern Kentucky University
Richmond, Kentucky
2010

DEDICATION

This research is dedicated to the men and women, from a variety of backgrounds, who commit countless, grueling hours of their lives to the call of emergency response—from medical, to fire, law enforcement, emergency management agencies, disaster relief organizations and volunteers. Your self-sacrifice in the greatest time of need does not go unrecognized. Thank you.

ACKNOWLEDGMENTS

ABSTRACT

The purpose of this research was to identify how effective the use of social media is when used by university students during emergency events. The literature review included in this thesis studies the cases made by other researchers, who were equally as curious about social media's communication effectiveness, and in some incidents evaluated how it was used, the results produced, and what contribution it made during the timeline of that emergency.

The methodology inquired about, and examined, the types of events which students most commonly use social media, the frequency of such use, and their interest in seeing this type of platform applied for official emergency communication purposes. A survey with a total of thirty-three questions was developed and made available online for voluntary completion by members of randomly selected student organizations at Eastern Kentucky University, with the final results delivering a compelling case for further discussion and research on this topic.

While the results are not a reflection of the thoughts and opinions of the student population of Eastern Kentucky University, the students that volunteered their time to participate provided valuable insight, which appears to strengthen the argument for the use of social media as a mass communication tool during emergency events, with the majority of survey responses in agreement with using this tool at the university level.

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CHAPTER I

Introduction

When Hurricane Katrina made landfall in August of 2005, most of the United States watched the quickly escalating and deadly event unfold through their television sets, fixated by the downpour of destruction in a way that many Hurricanes had not done in the years prior, perhaps not since Hurricane Andrew in 1992. As breaking news correspondents and meteorologists bravely ducked and dodged against flying shards of aluminum and piercing, broken billboard signs, distant spectators looked on from their homes, workplaces, and classrooms, watching as New Orleans quickly overflowed like an unattended fish bowl.

It wasn't until the days following landfall that the destruction became heartbreakingly evident—homes fully submerged in water and bodies found trapped in flooded attics. The Super Dome, a refuge for those did not evacuate the city, became a hotbed of chaos, with deplorable and unsanitary conditions wrought by the humans that occupied its interior spaces. Most forms of telecommunications were inaccessible and inoperable, and Emergency Management officials were not prepared for the challenges that would be presented in the coming hours, days, weeks, and months ahead. Residents were rendered homeless; the city became lawless. The rest of the world, so far displaced from this event, could only watch and listen to the news that was given to them, or perhaps by word of mouth if they knew someone, who knew someone. Hurricane Katrina, in the grand scheme of natural disasters in the United States, stamped its mark in history as one of the worst-responded to events in modern Emergency Management, as

well as the costliest in terms of destruction. It was every what-if drill's worst-case scenario.

Just a year earlier, a "social networking" website was quietly gaining momentum among college campuses across the United States. By December 30th, 2004, Facebook, created by Harvard student Mark Zuckerberg and fellow peers reached 1 million registered profiles (socialmediatoday.com, 2013). Although MySpace, a steadfast pioneer of the social network movement was larger in numbers, it failed to achieve what Facebook would quickly become known for: information sharing among connected users ("friends"), and real-time updates of user activity.

At the time of Hurricane Katrina, however, Facebook wasn't considered a powerful media and information sharing tool, though it would stand the test of time and trends, eventually establishing a new benchmark for breaking news reporting. In the aftermath of Katrina, the Red Cross established the "Safe and Well" survivor list website where loved ones could reconnect with the displaced. Soon after, the site served the same purpose for Hurricane Rita. Although this was a useful tool at the time it was used, today, it may not seem so practical with the other networking tools readily available. Today, Facebook boasts approximately 1.25 billion active users worldwide (Facebook.com). Another popular social networking site, Twitter, currently boasts approximately 200 million active users (Twitter.com). Though it lacks the same large information sharing capabilities as Facebook (with 140 character limit in posts), Twitter is effective in cutting straight to the point, and directing users to other, more complete sources of information—such as news, government, or personal websites and blogs.

Essentially, social networking sites such as Facebook and Twitter have taken the once practical linear structure of information sharing and turned it into a rapidly growing web—where one user has the potential to reach thousands of individuals with a single post. In traditional incident command, the public information officer would approach the media, share updates, and the media in turn would blast the information to its audience. The audience has now become the messenger though, eliminating sole reliability on information being relayed from the media.

The purpose of this study is to examine what effect social media has on university students during emergency events. The development of disaster communications in the past 10 years has significantly evolved, and it appears that social networking has become a resourceful tool in fulfilling communication needs in times of crisis. Emergency managers, government agencies and non-government organizations may find valuable information during emergency events, and private citizens have the potential to receive a great deal of their breaking news and information from their social media accounts, even while in the workplace or the classroom. Major, unpredictable events that have occurred at, or have affected universities and places of employment during business hours in the past 10 years include:

- Northeast Blackout (2003)

- Virginia Tech Massacre (2007)

- Fort Hood Shooting (2009)

- Discovery Communications Hostage Crisis (2010)

- BP Deepwater Horizon Rig Explosion (2010)

- Tuscaloosa-Birmingham Tornado Outbreak (2011)

- Japan Earthquake/Tsunami (2011)

- Aurora, Colorado Theater Shooting (2012)

- Sandy Hook Elementary School Shooting (2012)

- Hazard Community and Technical College Shooting (2013)

- Boston Marathon Bombing (2013)

- Moore, Oklahoma Tornado (2013)

Although the usefulness of social media can be argued in many other natural disasters, such as hurricanes or flooding, it was the unpredictable nature of the above listed events that occurred that makes their applicability all the more practical. The mindset of preparedness that comes with the knowing of major hazardous events is not quite the same as a natural state of readiness for individuals who are unaware of the timing of events that will impact their routine. One's reaction to an event, with minimal to no warning, can result in well-timed, rational decision making, or hasty, ill-prepared decisions. Everyday workers and students, who are not familiar with traditional incident command, and emergency planning and preparedness, generally do not always ponder how they would react without proactive measures taken from an outside entity (i.e.: employer, school), to drill scenarios such as tornados, or earthquakes.

Many employers and universities are still at a loss of how to train for a workplace violence or mass casualty incident, though efforts are being made to mitigate this shortcoming. Additionally, during morning conversations over coffee, or meeting breaks, people are starting to ask each other what they would do if there was a shooter in their workplace, how they would respond and if they would fight back. Workers, as well as

students, are wondering if they would hide or run. In some cases, they may not be sure

what they would do. In terms of inclement weather events, some may be inclined to stay

in their place of employment or in the classroom, while others would prefer to go home.

These are all very real and critical scenarios that happen nearly every day in the United

States.

The top-down chain of command approach used in modern Emergency

Management may be experiencing a facelift from the web of communication offered

through social networking. According to Dennis Meleti, disaster-management researcher

at the University of Colorado: "It is actually very difficult to get human beings to

perceive that they are at risk…How do you convince people that they are at risk? Only

through other people." (Winerman, 2009) Is this, ultimately, how the behavior of an

individual is effected while at the workplace or in the classroom? Has the social

networking realm, to include Facebook, Twitter, and YouTube, cracked the code of

complacency in individuals who once thought "that will never happen to me," or "that

doesn't happen here"? Perhaps the liking and sharing (sometimes, oversharing) is finally

accomplishing what the government, emergency managers, and the media have strived to

do: get a point across. Deliver the message. Alert. Tell the people as it really is.

CHAPTER II

Literature Review

The literature review for this thesis will be divided among five different sections, and will explore a wide range of periodicals, articles, and academic journals that pertain to their corresponding topic. Although there are very few studies and results available that discuss what this thesis seeks to achieve—determining how an employee's behavior is affected by social media during an emergency event—there is plenty of other resources available that support what the prospective conclusion of this thesis sets to establish.

***Part I. This is Only a Test*:**

A Brief History of Public Alert and Warning Systems in the United States

As the United States of America found itself in the midst of a Cold War with the Soviet Union, the government was seeking ways to improve its public awareness and home preparedness campaigns. Campaigns such as *Duck and Cover* provided instructions to classrooms and families on how to "adequately" protect themselves during a nuclear blast. Much to the naïve trust of the general population, such practices (literally seeking shelter by ducking and covering), there was ultimately little that could be done to safely hide at the point of impact. However, it is fair to mention that no mass alert broadcasting system existed to warn citizens prior to 1951. Warnings and emergencies could be broadcast over radio or television, dependent upon the networks to interrupt programming to distribute such alerts.

In 1951, President Harry S. Truman established **Co**ntrol of **El**ectronic **Rad**iation, or better known as CONELRAD. This was the first public warning system introduced to alert of intercontinental ballistic missile systems, and wasn't intended to provide alerts

for tornados or other natural emergencies. In 1963, CONELRAD was replaced by the Emergency Broadcast System (EBS). On November 9th, 2011, the first nationwide test of the Emergency Alert System was broadcast. According to the Public Safety and Homeland Security Bureau:

"The EAS is a national public warning system that requires broadcasters, cable television systems, wireless cable systems, satellite digital audio radio service (SDARS) providers, and direct broadcast satellite (DBS) providers to provide the communications capability to the President to address the American public during a national emergency. The system also may be used by state and local authorities to deliver important emergency information, such as AMBER alerts and weather information targeted to specific areas." (Public Safety and Homeland Security Bureau, 2011)

In recent years, other alert systems have also been introduced, such as IPAWS (Integrated Public Alert Warning System) and WEA (Wireless Emergency Alerts). However, in the evolution of public warning systems for various causes and concerns, perhaps the most revolutionary and beneficial warning system to the general population was the introduction of the National Weather Service Next Generation Weather Radars (NEXRAD) (Simmons et al, 2007). In his study "Tornado Warnings, Lead Times, and Tornado Casualties: An Empirical Investigation," Kevin Simmons establishes results between long-warning tornadoes and casualties, and finds that "Warnings in effect and longer lead times reduce injuries compared to a storm with no warning, but the greatest reduction in injuries occurs with a lead time of between 11 and 15 min, with a 47% reduction in expected injuries, and that beyond this time frame the marginal benefit of longer lead times becomes negative." (Simmons et al, 2007) In examining the results of

this study and the correlation between the lead time and fatalities associated with the tornado, it appears that this concept can be applied to other warning systems for multiple situations. If a reduction in fatalities is consistent with the lead time provided during warnings, then it's possible that in other situations, such as workplace violence or active shooter incidents at college campuses, that a lead time in warnings can provide adequate response for those affected, potentially reducing the number of those victimized.

The overall effectiveness of mass alerting and warning systems, and the population it benefits, largely speaks for itself in that warning systems continue to evolve and improve each decade in response to the most popular technology available at that time. With individuals moving from the tube and radio signals, to now smart phones and tablets, it's a curious time to witness how social media tools can now be used in the same manner as community sirens, EAS, and emergency text messages.

Part II. Please Remain Calm:

Communication Gaps and Information Sharing During the Virginia Tech Crisis

On April 16th, 2007, a tragedy resonated across the entire country that left mainstream news media speechless, college students worried for their general safety, and universities scrambling to re-evaluate everything they thought they ever knew about campus security. At Virginia Polytechnic Institute and State University ("Virginia Tech") in Blacksburg, Virginia, in the early morning hours, two college students were shot and killed in a campus dorm room. While authorities scrambled to collect evidence and search for a killer, upperclassman Seung Hui Cho was preparing to unleash the withdrawn fury that he harbored inside, and commence a shooting rampage on his fellow

students and University personnel that would leave 33 dead and 17 wounded, including Cho who turned his own weapon on himself. (Davies, 2007)

While emergency responders scrambled to revive the dead, identify the survivors, and heal wounds that would last forever as scars, students, university personnel, and families began their own frantic search of identifying the dead and the living. No official list of fatalities had been provided in the passing hours, except for an official statement from the university providing the death toll. With little comfort to ease aching hearts and worried minds, family and friends turned to the only resource of collected knowledge that they could rely upon to assist them in their search efforts: Facebook. "By the time the university released the names one day later, it was old news to the online community: they had identified all 32 (victims) of the deceased already." (Winerman, 2009)

Without waiting for the "official" news to come to them, these individuals took it upon themselves to proactively seek the information they desired. In a new era of technology, it was suddenly apparent that victims of disasters and emergency events, as well as simply the curious, could gather information from unofficial sources—everyday citizens acting in a non-governmental organization or official representative role. In a near instant, the "top-down" approach of information sharing was eliminated with a web of connectivity. This leaves us to ponder where this type of resourcefulness leaves emergency management officials. As names and information spilled out onto Facebook and other social media platforms, discrepancies were eventually found to be "self-correcting." (Winerman, 2009) "Emergency managers have this desire to control the flow of information…But you can't control it. The best we'll be able to do is figure out how to harness it." (Sutton et al, 2009)

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Part III. Like, Share, Post and Tweet:

Utilization of Social Media during Emergency Events and Post-Disaster Communications

As discussed above, the use of Facebook in identifying victims and survivors during the Virginia Tech massacre displayed effective and factual information sharing capabilities post-event. While this one event is only a single example of how social media has empowered to general public and directly impacted individuals to seek answers in a time of need, there are countless events occurring every day that fulfill this same purpose.

The "Arab Spring" revolutions and protests that swept across the Arab world were in part attributed to the rapid channeling of information sharing through Facebook, Twitter, and YouTube, when accessible. In recent years, we have also seen a trend in information sharing during emergencies and post-disaster communications, such as the Japan Earthquake and Tsunami of 2011, the 2009 H1N1 Outbreak, Aurora, Colorado Theater shooting, and as recently as the Boston Marathon Bombing and subsequent manhunt that followed in pursuit of the responsible bombers. Not only is social media a sought after resource in times of distress or emergencies, but is also becoming a leading tool in the distribution of potentially life-saving guidelines during public health related issues.

A study released focuses on Twitter trends concerning the H1N1 pandemic of 2009, where the researchers archived over 2 million Twitter posts containing the words "swine flu, "swineflu," and/or "H1N1." (Chew, et al, 2010) The conclusion of this study "illustrates the potential of using social media to conduct 'infodemiology' studies for public health. 2009 H1N1-related tweets were primarily used to disseminate information

from credible sources, but were also a source of opinions and experiences. Tweets can be used for real-time content analysis and knowledge translation research, allowing health authorities to respond to public concerns." (Chew, et al 20010) Content of the study was divided into different categories to better identify the practicality of random tweets selected for the study: resource (such as news or updates), personal experiences, personal opinion and interest in the outbreak, jokes and parody related to the outbreak, marketing (such as product-related advertisement and services), and spam (tweet is unrelated to H1N1). The study found that "H1N1 pandemic-related tweets on Twitter were primarily used to disseminate information from credible sources to the public, but were also rich source of opinions and experiences. These tweets can be used for near real-time content and sentiment analysis and knowledge translation research, allowing health authorities to become aware of and respond to real or perceived concerns raised by the public." (Chew et al, 2010).

Part IV. Posted 12 Hours Ago:

Is Social Networking Running Ahead of Traditional Media and Federal Emergency Management?

According to Huang *et al*, "current telephone, radio, and television-based emergency response systems are not capable of meeting all of the community-wide information sharing and communication needs of residents and responders during major disasters," particularly since the Chi-Chi earthquake in Taiwan and Hurricane Katrina in the United States. (Huang et al, 2010) The author also discusses that "after 9/11, Preece and Shneiderman *et al* proposed the concept of community response grids which would allow authorities, residents, and responders to share information, communicate and

coordinate activities via internet and mobile communication devices in response to a major disaster." (Huang et al, 2010) Without even acting as a government organization or non-governmental organization, social media platforms such as Facebook and Twitter, have given life to the concept discussed above. Even more so than a grid, these tools have allowed registered individuals to make their own web of contacts that they can communicate with simultaneously with a single post or message.

The paper "Communication Gaps in Disaster Management: Perceptions by Expert from Governmental and Non-Governmental Organizations," defines crisis communication as "to lesson uncertainty, respond to and resolve the situation, and to learn from it." (Ulmer, et al, 2007) It also states that "communication needs to be a regular part of crisis management procedures, and decision making during a crisis situation calls for openness." (Visuri, 2003) Clearly one of the greatest challenges experienced, at first, is the careful vetting and accurately identifying factual information derived from social media posts. However, this is an issue that is not simply exclusive to social media alone, but is also experienced in mainstream news media reporting, internet publication sources, and official government reporting. Verifying facts, figures, and information must be channeled through all mediums of communication, whether amongst private groups, with individuals, or shared with the general population.

Part V. Where Do We Go From Here?

Conclusion of Literature Review

At the writing of this paper, including Eastern Kentucky University, an example of some of the organizations currently interacting on Twitter and Facebook is as follows:

- Federal Emergency Management Agency

- NOAA

- Department of Homeland Security

- United States Coast Guard

- Department of Energy

- Multiple state emergency management agencies

- American Red Cross

To include social media, several of these organizations now also have smart phone applications available for download. It will still take time and many more events to determine exactly how official emergency management and response organizations will utilize social media in their everyday emergency endeavors, however, it appears that among the college student population, social media has the potential of being an effective tool at general preparedness and perhaps, saving lives. When considering the events of Virginia Tech and how information gathering benefitted from the use of social media, there is the potential for similar utilization when issuing alerts and warnings.

A cost-effective and quick means of communication is achievable if official emergency management and disaster response organizations continue to invest in the use of social media. Longevity, participation, and further analysis of events and social media usage will require evaluation to make a more sound determination of exactly how effective of a tool it is. However, given the results of prior studies that focus on the use of other warning systems in times of need, the lead-time between the warning and the length of time those on the receiving in had time to respond accordingly, there is an established correlation between the two. In a university setting though, there needs to be a medium of adequately warning the student population that may not be traditional, such

as building alarms, sirens, and intercom announcements, where sometimes false alarms can easily be triggered and misleading. As this type of media continues to evolve, universities can find ways to incorporate it into their emergency communications planning.

CHAPTER III

Methodology

Data Collection

On March 3rd, 2014, an electronic survey with a variety of thirty-three questions was distributed via e-mail to listed representatives of forty-four student organizations at Eastern Kentucky University ("EKU"). At the time the survey was distributed, it was revealed by responses that two of the student organizations were no longer active. As a result of that feedback, it was then assumed that the selection of active student organizations was actually forty-two. Of those forty-two student organizations, four representatives responded to my message and agreed to distribute the survey among their peers in the organization they were representing. At the close of the survey window, a total of thirty-nine (39) responses were given. It's important to note that the responses do not reflect the thoughts and opinions of the entire student population at Eastern Kentucky University, and are only representative of the students who chose to participate in this survey.

The questionnaire, developed with an online survey tool, asked "what effect does social media have on university students during emergency events?" With a growing national awareness of workplace violence and mass shooting events at K-12 schools and college campuses, rapid emergency communication technologies are continuously being explored and deployed in different industries. Identifying which of these communication tools, such as e-mail, text messaging, and automated voice messages, provide the quickest message to the largest audience, appears to be the most desirable feature, as lifesaving messages depend upon who they reach and when.

While out of the control of the communicator and the technology, the location of the recipient, and whether or not they are actually engaged with the message they receive, are also important factors to consider. While the intentions of the sender of the message are for the benefit of the recipient, understanding how the recipient(s) interpret such messages, and how they choose to respond, is what ultimately determines the value and effectiveness of alternative communication resources.

The assortment of questions presented in the survey was broken down as follows:

- Ten (10) Multiple Choice

- Twelve (12) 'Yes,' 'No' and 'N/A'

- Eleven (11) Agree/Disagree

This survey sought to provide answers as to how students are inclined to respond to emergencies at Eastern Kentucky University as it relates to the information they receive through social media. Prior to releasing the survey, the belief was that the answers provided would produce results in favor of using social media platforms as a communication tool in times of emergencies, and perhaps be more effective in communicating to a mass audience in a short interval of time, as compared to traditional television and radio alerts, phone calls, or intercom systems.

Although some questions are directly related to student ownership of a smart phone that has direct access to social media applications, most questions could be answered in relation to access through other devices, such as a laptop, desktop, or tablet. In the survey provided in Appendix B, students are asked to respond with the answer that most closely represents their beliefs, as well as provide factual information about the

student's demographics, including age range, gender, student, residential and employment status.

Context of Study

It has only been in approximately the past 12 years that social media has embedded itself as a familiar communication device in the United States. While it has served as both a benefit and a curse to staying connected to those in our lives, the goal of such technical intimacy was intended to be personal in nature; sharing stories, thoughts, pictures of memories in the making, everyday happenings, and a platform of self-expression. It wasn't until the type of audience and number of users began to grow, that alternative uses for connecting to the masses was fully realized.

While the number of social media users continues to grow on a global scale, these platforms are relatively in the infancy stage of their existence. The instant gratification users can experience by interacting with their peers on various levels, delivers an attraction that is not quite found in other forms of modern communication. While preferences for communication vary on a personal level obviously, there is no denying the sensory responses that are generated from viewing pictures, to watching videos, and switching from emotionally calm to instantly flabbergast in the middle of a politically charged status update or Tweet.

Because of the 'age' of social media, there is little reliable data currently available that supports or rebukes the argument that social media *is* an effective communication piece in emergencies. What literature and statistics that do exist have been evaluated and discussed for this study, yet further research and data collection is strongly encouraged to support either argument. For this research project, I opted to pursue a qualitative study—

gauging the thoughts and responses of students from Eastern Kentucky University, to better understand how their behavior may be driven by social media communication during emergencies.

Research Findings and Discussion

Because of the changing ways in which the world communicates, interest was generated in examining how these developments drive the behavior of those who are directly, or indirectly, involved in an emergency. Furthermore, understanding how the behavior of people is shaped by what they perceive through social networking, was the catalyst for developing the types of questions found in the survey. For a better understanding of the participants and how they have shaped the results of this study, below is a brief snapshot of some of their responses. The full survey can be found in Appendix A, with corresponding charts in Appendix B.

- **89.74%** were <u>full-time</u> students with EKU at the time of the survey

- **10.26%** were <u>part-time</u> students with EKU at the time of the survey

- **100%** of the respondents were students of the <u>Richmond-EKU</u> campus

- **92.11%** responded <u>'yes'</u> to owning a smart phone

- **65.79%** responded <u>'yes'</u> to occasionally checking their social media profile(s) while in the classroom

- **50%** <u>Agreed</u> and **23.68%** <u>Strongly Agreed</u> that they were "inclined to read posts from others when the subject is related to current events, disasters, emergencies, public health issues and global events."

- o **23.68%** responded as <u>Neutral</u> to this statement, where **2.63%** <u>Disagreed</u> with this statement

After reviewing the above responses, then examining the responses to the next statement listed below, I noticed the start of a trend that forced me to critically evaluate possibly *why* students may have been responding the way they were. In a series of three different statements, the students are asked to respond to how social media should be utilized by a variety of entities—Eastern Kentucky University, the local media, and local government offices (such as public health or emergency management). In terms of agreement, the results slightly varied among the three different statements. Below are the results.

- **39.47%** <u>Agreed</u> and **31.58%** <u>Strongly Agreed</u> to the statement that "social media posts about emergency events occurring at our university (EKU) is an effective way of quickly communicating with the student population." (Q. 26)
  - o **15.79%** responded to the statement as <u>Neutral</u>
  - o **10.53%** <u>Disagreed</u> with the statement, and **2.63%** <u>Strongly Disagreed</u> with the statement
- **47.37%** <u>Agreed</u> and **31.58**% Strongly Agreed that "local government offices, such as public health and emergency management, should use social media to communicate with the community about issues and emergencies that directly impact the community." (Q. 27)
  - o **13.16%** responded as <u>Neutral</u>

- o **5.26%** <u>Disagreed</u> with the statement and **2.63%** <u>Strongly Disagreed</u> with the statement.

- **54.05%** <u>Agreed</u> and **24.32%** <u>Strongly Agreed</u> that "local media should use social media to communicate with the community about issues and emergencies that directly impact the community." (Q. 28)

  - o **13.51%** responded as <u>Neutral</u> to the statement.

  - o **5.41%** <u>Disagreed</u> and **2.70%** <u>Strongly Disagreed</u> with the statement.

As I reviewed the responses above I pondered why there was a slight, yet noticeable difference, in how the students agreed or disagreed with how social media was used by the three different organizations. Initially, I had the impression that the results would be the exact opposite—that the greater majority would be in favor of the university utilizing social media resources to communicate to the student population during emergencies, with interest tapering off with the local media and public agencies. However, it was the contrary. Interest was first greater with the local media, then public agencies, and finally, at the university. I found this result to be even more perplexing based on the responses to the statement below.

- **39.47%** <u>Agreed</u> and **31.58%** <u>Strongly Agreed</u> that they were "more likely to find out about breaking news, issues, and emergencies from social media posts (as opposed to) television, radio, telephone calls, or face-to-face communication." (Q. 29)

  - o However, **13.16%** responded as <u>Neutral</u>

  - o **5.26%** <u>Disagreed,</u> and **10.53%** <u>Strongly Disagreed.</u>

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There are a few possible explanations for why the students responded the way they did. As their answers indicate, 76.23% of the responders live off campus, with only 21.05% living on campus (Q.3). One individual did not provide a response. Additionally, 73.68% of the students have access to a television that provides 24/7 news coverage (Q.14), and 97.37% have access to a radio (Q. 15). All of the students (92.11%) that own smart phones also agree that they have social media applications ("apps") downloaded on their phones (Q. 12). Consequently though, 81.58% claim to not watch television news daily, so that does not appear to be a leading indicator for their information resource. The question of radio usage is also asked and the results bring in an even closer margin, with 59.46% agreeing that they listen to the radio daily (Q. 27), as compared to the 18.42% that watch television news daily. Compared to whether or not students use social media more than listening to the radio or watching television, the results were fairly flat, with 21.05% agreeing, 21.05% strongly agreeing, 23.68% neutral, 18.42% disagreeing, and 15.79% strongly disagreeing. (Q.31)

While television news and the radio are embedded in the fabric of modern technology, which has undoubtedly changed how the world sees itself, it's only the natural deposition of society to find more ways to discover. And even though we have largely depended upon these two mediums to deliver the information we seek, there are limitations and obstacles along the way, such as censorship, political influence, and media bias. Even though such obstacles exist even with social media websites and the internet as a whole, the skillful, determined, and educated find ways to circumvent such barriers.

What users find on social media sites though, may not always be the picture of perfection and accuracy they hope to see. Question 33 of the survey presents the statement "I believe active social media users provide more complete, unbiased, and useful information related to an emergency than the media and government provides to the public in a time of need." 15.79% agreed, 28.95% were neutral to the statement, 42.11% disagreed with the statement, and 13.16% strongly disagreed. When asked if they would feel inclined to confirm the validity of a post on social media about an emergency, through another source, an overwhelming 89.47% agreed.

There are other issues, unrelated to human influence that can also present information delivery setbacks, such as power outages, equipment failures, and structural damage, both at the sending and receiving end. Should at any time vital mass information resources, like the television and radio, become unavailable, there are other obvious alternatives: phone calls, text messages, door-to-door, assemblies, bulletins and newspapers, and face-to-face conversation. Although all are important elements to human communication, do these methods contribute the same in a sudden time of crisis when vital, life-saving information needs to be dispersed quickly and widely?

According to the student survey participants, 84.41% have used social media "to collect information or to read updates on current events and/or emergencies." (Q. 20) The scenarios that account for this type of need can vary—from natural disasters, to major traffic accidents, public health emergencies, bomb threats, terrorist attacks, mass shootings or workplace violence incidents. In regards to campus-related emergencies, question 30 offers the statement, "I believe if there is ever an emergency on our campus, the best way to alert students quickly is for the university to post an official alert, and

request that connected users share the information with affected members of the university population." 44.74% of students agreed and 21.05% strongly agreed. 18.42% responded as neutral, 7.88% disagreed, and 7.88% strongly disagreed. As far as emergency preparedness is concerned, 82.05% of students responded that they were aware an emergency response pan exists at the EKU campus (Q.9), however, the results varied greatly in relation to how much information the students were actually familiar with; 29.73% were aware of some of the information, 21.62% suggested they knew most of the information, 29.73% knows very little of the information in the plan, 2.70% is not familiar with any of the information, and 16.22% responded they were not aware an emergency response plan existed.

Subjectivities

As the researcher, I had some subjectivity that I had to remain aware of while developing my survey. As a graduate of Eastern Kentucky University, and a graduate student pursuing this as my chosen topic, I was hopeful that the voluntary student response would be enthusiastic and plentiful in numbers. As there was no direct incentive for participants choosing to complete the survey, I was left to rely on those who volunteered their time and feedback. With the participants remaining totally anonymous, I had no way to identify or thank those who contributed.

Additionally, I am an avid social media user. My use of social media first dates back to around 2003 with MySpace, and Facebook by 2007. In an attempt to expand my career network, I dove into LinkedIn in 2012, and, due to my limited understanding of its applicability and usefulness, I finally joined Twitter in 2013 as I formally began this research. Subjectively, I was curious to see if other social media users saw an

opportunity for emergency response communications in something as simple as a few written characters.

Limitations

While the results seem to indicate that social media is an effective and useful device in communicating with a mass audience rapidly, additional research on the subject is highly encouraged. The overall responses proved to be thought-provoking, however, the answers of thirty-nine responders only provides a glimpse into the current mindset of the general student population at Eastern Kentucky University, particularly those who are members of active student organizations. Based on the age range of the responders, there is also a degree of assumption that the survey did not touch quite as many non-traditional students as hoped. A wider assortment in age groups could possibly provide a more comprehensive analysis of how social media impacts various generations differently, and whether they interpret its usefulness the same way. The results show this gap, with 79.5% (31) of the responders between the ages of 18-23, 10.3% (4) between 24-29, 2.6% (1) between 30-35, and 7.7% (3) age 36 and above.

CHAPTER IV

Moving Forward

With such answers, numbers and percentages that are presented, we are left to ponder what it all really means. Various interpretations of the results can mean many different things. There appears to be no groundbreaking, scientific discovery with these results, or a cosmic breakthrough in interpreting the psyche of an average college student. Yet the answers they provided shed light on a few important measures, one being that students have used social media to be educated on current events and emergencies, and also believe that using social media to post about emergencies on campus would be an effective means of communicating to students. It does not necessarily indicate that this means of communication is better or more effective, compared to television or radio correspondence, but such means of information delivery provides other options, such as ease and accessibility by users, quick connections to others, generally uninhibited access to sharing information with a wide audience almost instantaneously, and the cost effective (generally free) means of using these platforms.

Perhaps the greatest possibility we are left to consider is the ability to save more lives through rapid communication by near-instantaneous information sharing. If universities were to adopt social media as a practice to sharing critical information on campus related emergencies, the potential of quickly evacuating, sheltering in place, or responding, empowers those whose lives may be affected. There appears to be benefit in utilizing such a resource for these purposes, but its effectiveness will ultimately be determined by how receptive students, faculty, and staff are. Caution should be taken to avoid oversharing information, as it may desensitize users to content. In some

occurrences, sharing too much critical information may hinder or jeopardize certain response efforts or rescue operations. If the overall intention is to simply spread the word, save lives, and respond, then there appears to be an opportunity and interest to utilizing social media as an effective tool to communicating with the university population.

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(2014)

https://www.facebook.com

https://www.twitter.com

Appendix A

Survey: What effect does social media have on university students during emergency

events?

What effect does social media have on university students during emergency events?

Your participation in this survey is greatly appreciated as it will assist in the study of how the use of social media on college campuses impacts individual decision making during an emergency.

Multiple Choice

1. What is your status with Eastern Kentucky University?
   a. Full-time student
   b. Part-time student
   c. Non-degree seeking student

2. Which Eastern Kentucky University campus do you regularly attend?
   a. Richmond
   b. Corbin
   c. Manchester
   d. Lancaster
   e. Online

3. If you attend the Richmond campus, do you live on or off campus?
   a. On Campus
   b. Off Campus
   c. N/A

4. What is your age?
   a. Younger than 18
   b. Between 18-23
   c. Between 24-29
   d. Between 30-35
   e. 36+
   f. I wish not to disclose

5. What is your gender?
   a. Male
   b. Female
   c. I wish not to disclose

6. What is your employment status?
   a. Full-time
   b. Part-time
   c. Seasonal
   d. Student worker
   e. Unemployed

f. Other

7. Which of the following social media sites are you registered with? (Please check all that apply)
    a. Facebook
    b. Twitter
    c. MySpace
    d. Google+
    e. LinkedIn
    f. Instagram
    g. Other:_____
    h. All of the Above
    i. None of the Above

8. About how often do you check your social media page(s) daily?
    a. Once
    b. Twice
    c. Not more than three times a day
    d. Between three and five times a day
    e. More than five times a day
    f. I do not check my social media profile every day
    g. I do not have a social media profile

9. I am aware that an emergency response plan exists at my campus:
    a. Yes
    b. No

10. If aware that your campus has an emergency response plan, how much information in that plan are you familiar with?
    a. Some information
    b. Most of the information
    c. Very little information
    d. None of the information
    e. I am not aware that an emergency response plan exists

11. Do you currently own a smart phone?
    a. Yes
    b. No

12. If you have a smart phone, do you have social media applications ("apps") downloaded on your phone?
    a. Yes
    b. No
    c. N/A

13. If you have social media applications downloaded on your phone, do you stay logged onto your profile(s) so that you have quick access?
    a. Yes
    b. No
    c. N/A

14. Do you have access to a television that provides 24/7 news coverage?
    a. Yes
    b. No

15. Do you watch television news daily?
    a. Yes
    b. No

16. Do you have access to a radio, either in your home, place of employment, or vehicle?
    a. Yes
    b. No

17. Do you listen to the radio daily?
    a. Yes
    b. No

18. I occasionally check my social media profiles while in the classroom:
    a. Yes
    b. No

19. I occasionally check my social media profiles while at work:
    a. Yes
    b. No

20. I have used social media to collect information or to read updates on current events and/or emergencies:
    a. Yes
    b. No

21. If I read about an emergency, current event, or issue on social media, I may feel inclined to confirm its validity with another source:
    a. Yes
    b. No

22. If there is an emergency on campus that forces you to remain within your classroom, how would you communicate with your peers on campus of the emergency?
    a. Social media message or post
    b. Text

    c. E-mail

    d. Phone call

    e. I would not have access to any communications device, therefore unable to communicate with my peers

The following is a series of questions that are intended to measure how you feel inclined to respond in the event of an emergency either on or off campus. Please answer either agree, strongly agree, neutral, disagree, or strongly disagree, based upon how you feel you would react.

1. I prefer to utilize social media to communicate with others, as opposed to texting, calling, or e-mailing:
   a. Agree
   b. Strongly Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

2. I am inclined to post about current events, disasters, emergencies, public health issues and global events on my social media profile:
   a. Agree
   b. Strongly Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

3. I am inclined to read posts from others when the subject is related to current events, disasters, emergences, public health issues and global events:
   a. Agree
   b. Strongly Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

4. I believe social media posts about emergency events occurring at our university is an effective way of quickly communicating with the student population:
   a. Agree
   b. Strongly Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

5. I believe local government offices, such as public health and emergency management, should use social media to communicate with the community about issues and emergencies that directly impact the community:
   a. Agree

  b. Strongly Agree
  c. Neutral
  d. Disagree
  e. Strongly Disagree

6. I believe local media should use social media to communicate with the community about issues and emergencies that directly impact the community:
  a. Agree
  b. Strongly Agree
  c. Neutral
  d. Disagree
  e. Strongly Disagree

7. I more likely to find out about breaking news, issues, and emergencies from social media posts than I am from the television, radio, telephone calls, or face-to-face communication:
  a. Agree
  b. Strongly Agree
  c. Neutral
  d. Disagree
  e. Strongly Disagree

8. I believe if there is ever an emergency on our campus, the best way to alert students quickly is for the university to post an official alert, and request that connected users share the information with affected members of the university population:
  a. Agree
  b. Strongly Agree
  c. Neutral
  d. Disagree
  e. Strongly Disagree

9. I spend more time using social media than I do listening to the radio or watching television:
  a. Agree
  b. Strongly Agree
  c. Neutral
  d. Disagree
  e. Strongly Disagree

10. If I become aware, through social media, of an emergency in the community that has the potential to directly impact campus, I may feel inclined to leave campus:

a. Agree
b. Strongly Agree
c. Neutral
d. Disagree
e. Strongly Disagree

11. I believe active social media users provide more complete, unbiased, and useful information related to an emergency than the media and government provides to the public in a time of need:
    a. Agree
    b. Strongly Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree