

WHOSE TWEETS DO YOU TRUST?
MESSAGE AND MESSENGER CREDIBILITY
AMONG MAINSTREAM AND NEW MEDIA
NEWS ORGANIZATIONS ON TWITTER

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ABSTRACT

In light of the rising percentage of people consuming news from social media as opposed to traditional television, radio, or print or digital newspapers, how individuals decide to trust what they read online is growing more important (Pew Research Center, 2015a). As these social networking sites and microblogs provide users with more information than ever, credibility serves as an information filter (Ellison & Boyd, 2007; Wathen & Burkell, 2002).

This study used an online survey of young adults to compare the perceived credibility of two different types of news outlets on Twitter, mainstream and new media, using individual tweets from common mainstream and new media sources. The source of the tweet, either mainstream or new media, served as the independent variable and was manipulated to measure the perceived message and messenger credibility of the tweet, which served as the dependent variable. Results showed that source had a significant effect on the perceived message and messenger credibility of a tweet such that mainstream sources were considered more credible than new media sources. It also showed that media skepticism had a significant effect on perceived message and messenger credibility, while political cynicism produced no significant effects. Results suggest that mainstream news organizations are still considered more credible than new media organizations on Twitter, even among groups reportedly skeptical of mainstream media.

LIST OF ABBREVIATIONS AND SYMBOLS

<i>a</i>	Cronbach's index of reliability
<i>df</i>	Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data
<i>F</i>	Fisher's <i>F</i> ratio: A ration of two variances
<i>M</i>	Mean: sum of a set of measurements divided by the number of measurements in the set
<i>Mdn</i>	Median: the middle value of a dataset when the values comprising that dataset are listed in order, from either highest to lowest or lowest to highest
<i>p</i>	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
<i>SD</i>	Standard deviation: amount of variation of dispersion from the mean
<i>N</i>	Population size
<i>n</i>	Sample size
<i>r</i>	Pearson product-moment correlation
<	Less than
=	Equal to

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My initial research on this topic began as a senior journalism student at the University of Alabama when I became curious about the future of traditional news organizations in an increasingly digital world. Assisted by my professors both inside and outside the Department of Journalism and Creative Media, I turned my curiosity into a list of legal, ethical, and psychological questions that led me to credibility research. This thesis is a culmination of all that I have learned while investigating this issue as an undergraduate and graduate student, and it would not have been possible without the support of the following people.

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CHAPTER 1

INTRODUCTION

Truth, as it is pursued in journalism, traditionally has been determined by seeking out evidence of an operative consensus among relevant actors, many who were only considered relevant because they were made visible in an environment where public speech was limited to those with access to a media platform (Shirky, 2013). Now, however, as the internet gives rise to an abundance of new media outlets and allows an increasing number of different opinions to circulate within the public sphere, what defines a relevant actor is being called into question, making consensus more difficult to obtain as the web breeds new sources of information.

As a result, the audience scrutiny that befalls journalists as they attempt to “seek truth and report it” (Society of Professional Journalists, 2014) has increased with new, digital news sources and alternative voices that challenge the institutional authority of mainstream media (Shirky, 2013). The public’s trust in traditional news outlets has waned since the expansion of the internet, suggesting the work of selective exposure (Melican & Dixon, 2008) or that this trust was simply a product of scarcity (Shirky, 2013). As Shirky proposed in 2013, a public with only a few like-minded news sources might be more willing to consider them believable—that is to say, trustworthy, or credible—whereas the growing myriad of oppositional views and alternative sources in new media today have rendered that trust impossible.

If trust in mainstream news outlets was only attainable when news sources were more scarce, learning how the public attributes credibility for traditional and new media news

organizations now, in a digital environment, is of the utmost importance to determining the future of journalism in a world teeming with new media sources.

Mainstream news organizations that originated via traditional content distribution avenues, such as newspapers, television, and radio, have long histories with readers (Roberts, 2010) and have generally sought to project a sense of professional expertise under the assumption that expertise breeds cultural authority, or credibility (Schudson & Anderson, 2009). However, credibility ratings for mainstream news outlets are in steady decline, indicating growing public dissatisfaction with traditional organized journalism and its methods (Karlsson, 2011). Since the Pew Research Center first began researching this problem in 2002, the credibility ratings of almost all major news outlets have fallen by at least 10 percentage points (2012). As of 2012, the average positive credibility rating for traditional news outlets was 56 percent, a 6-point drop from the 2010 average (Pew Research Center). Partisan differences in credibility ratings have also significantly increased since 2002, especially for broadcast and cable television news outlets with real or imagined partisan views aimed at attracting like-minded viewers (Pew Research Center, 2012). It would appear that the institutional authority upon which mainstream news outlets depend has lost its effectiveness, as public assessments of their credibility continue to decrease and as more readers seek new media alternatives that tend to focus on interactivity and transparency (Hayes, Singer, & Ceppos, 2007).

New media are often characterized by their common methods of information delivery. Manovich has conceptually defined new media as “the cultural objects which use digital computer technology for distribution and exhibition” (2003, p. 9). He maintained that new media are essentially interactive, allowing for real-time control and communication (Manovich, 2003). However, new media as a theoretical category is useless if there are no distinguishable effects of

delivering content digitally, and this definition must inevitably be revised as more cultural forms come to rely on new computer-mediated avenues for distribution (Manovich, 2003).

As peer-to-peer communication in new media attempts to replace the one-to-many dynamic of mainstream media, the effects of new media become clear as consumers become less dependent upon professional expertise and more capable of collaborative problem solving (Jenkins, 2006). “Elite” news organizations, such as *The New York Times* and *USA Today*, appear to have lost some of their agenda-setting power to digital news outlets, the latter of which often forgo many of journalism’s standard practices to attack the credibility of mainstream news using information and opinions from other alternative sources (Meraz, 2009, p. 682).

Liebes argued in her 2000 study, “The belief in serious journalism—whether printed or electronic—is based on trust in the professionalism of journalistic practice” (p. 295). But as the public grows more distrustful of the media in general, media skeptics tend to find alternative news sources more credible than mainstream sources (Carr, Barnidge, Byung Gu, & Tsang, 2014; Tsfati & Cappella, 2005). Some have suggested that the public has simply lost trust in traditional journalistic expertise because of the recent challenge by “hordes of outsiders” to exclusive jurisdiction over news dissemination (Reich, 2012, p. 341; Shirky, 2013).

While mainstream news organizations have historically struggled to retain their gatekeeping role and to adjust their professional practices to reflect a modern media landscape (Lowrey, 2011), they have attempted to “normalize” new media platforms, specifically blogs and microblogs, to fall in line with their traditional norms and practices (Singer, 2005), while simultaneously adapting them to the changing norms and practices of this new media environment (Lasorsa, Lewis, & Holton, 2012). On the popular microblogging platform Twitter, mainstream journalists share their opinions and personal feelings in spite of their industry’s

professional norms of objectivity and nonpartisanship, and, to some small extent, embrace accountability and transparency in their work—two other methods typically espoused by new media (Lasorsa et al., 2012).

However, mainstream news organizations' new media endeavors rarely involve new media news sources. Instead, traditional news outlets keep their names—and thus the messenger credibility and cultural authority associated with those names—as they move into new web-based delivery platforms that pride themselves on public accessibility and interactivity. Mainstream organizations use these new media platforms to underscore their internal connections to elite professional networks, rather than the external networks for which the platforms were created (Meraz, 2009).

Mainstream journalists using microblogs, such as Twitter, still generally stick to their organization's traditional professional practices and are less likely than their new media competitors to involve non-professional users in the production process or to provide information intended to foster accountability or transparency (Lasorsa et al., 2012). While both print and digital journalists often post disclaimers on their Twitter profiles to indicate that their personal views do not necessarily reflect those of their organizations, newspaper journalists are still less likely to post hyperlinks, share email addresses, or ask for story ideas on Twitter, which suggests print journalists' continuous skepticism toward social media (Hanusch & Bruns, 2016).

As traditional journalism seeks institutional stability and social control, Lowrey explained in his 2011 study, it strives for public legitimacy by conforming to broad organizational norms and mimicking dominant structural forms. This drive for legitimacy could stunt mainstream journalism's ability to adapt to changes in its environment, especially where

media outlets are vulnerable to occupational uncertainty regarding new media technologies (Lowrey, 2011).

As if to tear down the walls separating professional, mainstream journalism from the public, early new media created a “radically horizontal” social system that made it practically impossible for any particular ideological perspective to become dominant (Manovich, 2003, p. 27). Since this dream of a “digital democracy” first took hold during the rise of the internet (Lasorsa et al., 2012, p. 21), new media have come to revere transparency as a new professional norm, critical to maintaining journalistic authority and public trust (Karlsson, 2011; Kovach & Rosenstiel, 2007). The interactive, individualistic nature of digital media breeds a kind of transparency thought by many to garner credibility for news organizations that lack the institutional authority of mainstream media (Hayes et al., 2007).

However, credibility research has shown that transparency has little to no effect on the perceived credibility of a source or message, and some authors have concluded that transparency actually damages that credibility (Karlsson, Clerwall, & Nord, 2014; Plaisance, 2013). Instead, transparency may play a more significant role as a line of defense against media scrutiny, especially during times of crisis, just as objectivity has done for traditional journalism (Karlsson et al., 2014; Shirky, 2013).

The question that remains is whether any of these methods are really working. Are new media organizations considered more or less credible than traditional media organizations, specifically when evaluated on the digital platforms used by both?

In light of the rising percentage of people consuming news from social media as opposed to traditional television, radio, or print or digital newspapers, how individuals decide to trust what they read online is growing more important (Pew Research Center, 2015a). As these social

networking sites and microblogs provide users with more information than ever from all around the world, credibility serves as an information filter (Ellison & Boyd, 2007; Wathen & Burkell, 2002). Credibility is a necessary component of any process intended to influence knowledge, attitudes, or behavior, and it is often deeply affected by the source of a message (Wathen & Burkell, 2002). However, Twitter users are only given a limited amount of information at a time upon which to base their credibility assessments. As of this writing, a news outlet only has 140 characters to convince a reader it can be trusted. While message length alone cannot be used to predict that trust, it works in tandem with other features to indicate the credibility of a tweet (Castillo, Mendoza, & Poblete, 2011).

Although the Pew Research Center (2015a) found that only 10 percent of U.S. adults consume news on Twitter, a more recent report by the American Press Institute discovered that 86 percent of all Twitter users use the site to read and propagate news, and that percentage is rising (Ivancin, Kjarval, Loker, Rosenstiel, & Sonderman, 2015). According to the American Press Institute, 40 percent say they use Twitter to follow breaking news, and 73 percent use their accounts to follow individual journalists, writers, and commentators, while 62 percent use them to follow news organizations (Ivancin et al., 2015). The Poynter Institute suggested in 2012 that this is an effect of Twitter's "interest network" function and that Twitter is separate from other social media platforms, such as Facebook and Google Plus, because relationships between followers often stem from shared interests rather than personal relationships (Sonderman, 2012), which selective exposure research suggests can affect how users attribute credibility for new media sources that reinforce their already held beliefs (Melican & Dixon, 2008).

Compared to Facebook news consumers, Twitter news consumers are younger and more educated (Pew Research Center, 2013). Half of all Twitter users have at least some college

education (Duggan, 2015), and 40 percent of Twitter news consumers have at least a bachelor's degree (Pew Research Center, 2013). They are also predominately young adults, who make up about one-third of Twitter's total adult user base (Duggan, 2015). According to a 2013 Pew Research Center report, 45 percent of all Twitter news consumers fall within this age range, and news consumption has significantly increased for similar demographics since 2013 (Pew Research Center, 2015a).

Bearing all of this in mind, this research hopes to shed light on the complex relationship between credibility and source on digital platforms, specifically, how the origins of a media organization could affect how young adults attribute news credibility on Twitter. Will the credibility ratings for new media outlets differ from those for traditional media outlets, and if so, which type of source will these Twitter users find more credible? This study compares the perceived credibility of new media and mainstream news organizations among young adults on Twitter. It uses the two-pronged credibility scale espoused by Roberts (2010) to test the message and messenger credibility of traditional news outlets and new media news outlets on this platform.

The source of the tweets served as the independent variable, while the perceived credibility of the tweets served as the dependent variable. Previous literature on this topic has highlighted the need to control for medium and message in digital media credibility research, as well as confounding receiver variables, such as media skepticism and political cynicism.

As Manovich (2003) suggested, this study defines new media news sources as news outlets that 1) originated via digital media technologies such as web sites and mobile applications, 2) are consequently dependent on these computer-mediated avenues for distribution, and 3) allow for digital interactivity. This study used BuzzFeed, Gawker, Vox, and

the Huffington Post to test the credibility of new media news sources on Twitter. Conversely, mainstream sources were defined as news organizations that originated via traditional content distribution avenues, such as newspapers, television, and radio. Therefore, *USA Today*, the *New York Times*, the *Washington Post*, and the *Wall Street Journal* serve as our mainstream news sources.

This study's findings are beneficial to the fields of journalism and communication research, specifically at the intersection of social media and news credibility. As Twitter users are increasingly using the platform to read and share news (Ivancin, Kjarval, Loker, Rosenstiel, & Sonderman, 2015) and as credibility ratings for traditional news outlets continue to drop (Pew Research Center, 2012), this investigation into the effects of news source on perceived credibility is of great importance to news organizations who wish to not only reach audiences on Twitter, but also to maintain those audiences and provide them with credible information about important news events, which can affect the decisions they make within their communities, as well as society as a whole.

CHAPTER 2

LITERATURE REVIEW

Introduction

Credibility has a long, complex history as a research topic, and new studies regarding Twitter and social media are being published more often than ever. Therefore, this chapter discusses relevant findings in social media research, focusing on Twitter and the behavior of its users, as well as findings from both old and new credibility research. Additionally, a review of this literature informs discussions of various aspects of social networking sites and microblogs, various types of news organizations, and various age groups as they relate to news credibility on Twitter. This review also lays the groundwork for this study's proposed research questions, which are discussed at the end of the chapter.

To effectively study how Twitter users perceive news credibility, one must first understand where Twitter stands in the larger context of social media. Not quite a social networking site and not quite a blog, Twitter serves as a platform for user-generated content and its dissemination, often considered a microblog in its function and capabilities (Kwak et al., 2010). Despite the abundance of material available on the platform and its tendency to amplify misinformation, Twitter does not play the role of the gatekeeper as Facebook allegedly does and as traditional news media generally have done, depending, instead, upon the credibility of Twitter users (Johnson & Kaye, 2015; Rutenberg, 2016).

Credibility, though defined according to countless concepts and attributes, can be understood as it relates to communication research as a complex relationship among message,

messenger, medium, and receiver characteristics. The credibility of a message and the credibility of its messenger result from interactions between these characteristics. In online environments, as well as within the realm of social media, their effects can vary. This study is concerned with how the users of a platform that originated on the internet perceive the credibility of news organizations also born on the internet, as opposed to news organizations that began via more traditional communication channels. Specifically, this study will examine how young adults, Twitter's largest user base, evaluate the message and messenger credibility of tweets from these news outlets' Twitter accounts.

Many online news organizations aggregate content from other news outlets in addition to publishing original material, such as the Huffington Post, Vox, BuzzFeed, and Gawker. Owned by America Online, the Huffington Post is a liberal-leaning group blog launched in 2005 that has embraced content-sharing partnerships among digital media organizations, as well as some print media organizations (Kurtz, 2007). Similarly, Gawker functions as a group blog, although it has since grown into a network of six other web sites under Gawker Media (Mahler, 2015). It is known primarily for its snarky, shareable web content and celebrity gossip, which has landed it in trouble on more than one occasion (Ember, 2016; Mahler, 2015). As of this writing, Gawker Media filed for bankruptcy after the company lost an invasion-of-privacy lawsuit to former professional wrestler Hulk Hogan, who was awarded \$140 million following Gawker's publication of the wrestler's sex tape (Ember, 2016). However, the web survey used in this study was conducted before the company lost the suit and before it filed for bankruptcy.

On the other hand, Vox is a successful news web site created by Ezra Klein, who left the *Washington Post* in 2014 in order to "build something from the ground up that helps people understand the news better" (Carr, 2014). Vox is a technology company first and a media

company second. All of its content is optimized for digital platforms and targeted toward a young, modern audience (Carr, 2014). Similarly, BuzzFeed is a news and entertainment web site that targets millennials with humorous, visual material designed for sharing and social media (Burton, 2013; Ellis, 2014). Stories are often broken down into lists and accompanied by animated and still images intended to make original, user-generated, and aggregated stories more appealing to young people (Burton, 2013; Ellis, 2014). However, the Pew Research Center (Mitchell, Gottfried, & Matsa, 2015) found in a news credibility study that BuzzFeed was ranked in the lowest trust category across three generations, including millennials. The Huffington Post was the most trusted new media news outlet of all the organizations listed, yet at the bottom of the highest trust category in all three age groups (Mitchell, Gottfried, & Matsa, 2015).

The aforementioned digital news organizations are interesting because they were started on the web, they became successful using various social media practices, and they create their own news content, as well as aggregate from other sources. As such, they exemplify the modern new media news organization and served as a strong measure of comparison against traditional news organizations as this study tested their perceived credibility on Twitter according their target age demographic.

Twitter

Social media and social networking sites. While it is frequently used to refer to social networking sites, social media encompasses the vast, diverse group of web-based services that allow for the production and exchange of user-generated content, evolving from the collaborative and participatory structure of Web 2.0 in the mid-2000s (Kaplan & Haenlein, 2010). Social networking sites constitute just one category of social media, albeit the most popular, especially

among young adults (Kaplan & Haenlein, 2010; Media Insight Project, 2015). In the past decade, usage of these sites has skyrocketed (Pew Research Center, 2015b). About two-thirds of American adults now use social networking sites such as Facebook and Twitter (Pew Research Center, 2015b), and 63 percent of Facebook and Twitter users obtain their news from those sites (Pew Research Center, 2015a). Four in 10 Americans now consume news via social media platforms, changing the methods many news organizations use to reach audiences (Bell, 2015; Media Insight Project, 2014). New media news outlets such as BuzzFeed often use this to their advantage and create content users will be more likely to see and share online (Bell, 2015).

Boyd and Ellison (2007) defined social networking sites as internet-based applications that allow users to “(1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (p. 211). They explained that, although the term “networking” implies a focus on forming new relationships, this is not the principal purpose of these sites. They are primarily used to maintain existing relationships, allowing the user to connect with others who are already part of one’s extended social network. What makes social networking sites different from other forms of computer-mediated communication is the user’s ability to articulate and organize these connections (Boyd & Ellison, 2007).

Users with whom one shares a reciprocal relationship are often called “friends,” and these friendships often determine the content that users see on social networking sites (Boyd & Ellison, 2007; Kwak, Lee, Park, & Moon, 2010). With the development of the news feed, Facebook popularized a more personalized method of content dissemination that filtered posts according to user interactions between friends, as well as personal data, and many other sites

have followed suit (Pariser, 2011). However, the unique social reality that an individual experiences on these social media platforms as a result of like-minded friends and invisible predictive algorithms changes the way users receive and interpret messages. The news one encounters in a “filter bubble” is more of a reflection of his or her online relationships, interests, and behaviors than an objective reality (Pariser, 2011). Pariser (2011) called the news feed a “personalized newspaper featuring (and created by) your friends,” ranking information based on predicted social relevance instead of the traditional journalistic value of objectivity (Facebook Everywhere section, para. 5).

Yet, Facebook has recently faced accusations from both digital and traditional journalists that the site’s internal “news curators” altered the algorithms behind Facebook’s “Trending” topics list, a highly influential addition to the news feed, in order to suppress conservative news, as well as stories from conservative news outlets (Nunez, 2016; Rutenberg, 2016). The initial report from Gizmodo, a design and technology blog owned by Gawker Media, also alleged that Facebook’s news curators were instructed to insert specific stories into the Trending list, regardless of whether the stories were popular enough to make the cut, and to avoid including stories about Facebook itself (Nunez, 2016). “So Facebook, born of the open Internet that knocked down the traditional barriers to information, becomes a gatekeeper itself,” the *New York Times*’ Jim Rutenberg explained (2016). As 66 percent of Facebook users depend on the site for news and 62 percent of American adults get their news from social media platforms in general (Gottfried & Shearer, 2016), much of the agenda-setting power traditionally held by mainstream media now appears to belong to social media and social networking sites (Rutenberg, 2016). This shift of roles highlights the need for further research into how different kinds of news organizations affect credibility on these digital platforms.

Blogs, microblogs, and Twitter. According to Kaplan and Haenlein (2009), web logs, or blogs, represent the oldest category of social media and can refer to several different kinds of personal webpages. A blog can be a personal online diary or a web journal for news commentary and supplementary links, both of which usually feature an option for comments so the audience can communicate with the author (Kaplan & Haenlein, (2009); Seipp, 2002). Most blog entries are time-stamped, and published from newest to oldest post. Many are text-based, because video and photo blogs have become more associated with their respective platforms or content communities, such as Flickr and Youtube (Kaplan & Haenlein, 2009). Mainstream media organizations rarely enlist bloggers to help distribute hard news in order to remain in control of their content, but they have begun to use social networking sites and microblogs as platforms for information dissemination (Lasorsa et al., 2012; Meraz, 2009; Schmierbach, & Oeldorf-Hirsch, 2012).

Microblogs are a specific of kind of blog characterized by short text updates from users that can be shared publicly or within a social network. Because posts are generally limited to about 200 characters or fewer, users are not required to spend as much time consuming and generating content as they might on a traditional blog, and as a result, they publish updates more frequently (Java, Song, Finin, & Tseng, 2007). Microblogging is similar to social networking sites, blogging, and instant messaging in that posts are listed on the author's profile in reverse chronological order, while also forming a feed where users can repost or reply to updates from other users quickly and easily (Schmierbach, & Oeldorf-Hirsch, 2012). These features allow for faster news circulation than other platforms (Grinev et al., 2009).

Although many associate it with Facebook and other similar applications, Twitter functions more as a microblogging platform than a social network or social networking site

(Hampton, Goulet, Rainie, & Purcell, 2011; Kwak et al., 2010; Messing & Westwood, 2014). Whereas social networking sites serve to reinforce existing relationships between users, relationships between Twitter users often emerge from common interests, which Sonderman (2012) suggested might explain why they are more likely to seek connections with journalists and news organizations (Boyd & Ellison, 2007). In a recent report, a majority of 18- to 34-year-olds, Twitter's largest demographic, said one of the main reasons they use Twitter is to see what's "trending" (Media Insight Project, 2015, p. 27). "Twitter is a place to learn about what people in general are talking about, not just the lives of people they know," the authors wrote (Media Insight Project, 2015, p. 27). Twitter users are also more interested than nonusers in using social media to read about and connect with celebrities, politicians, or athletes (Smith, 2011).

However, these connections are often one-sided. Users can subscribe to, or "follow," other accounts in order to receive their updates, or "tweets," but followers are under no obligation to reciprocate this relationship on Twitter, unlike many social networking sites (Kwak et al., 2010, p. 1). The users with the most followers are usually celebrities or mass media organizations, and most of them do not follow their followers back. Kwak et al. (2010) reported that Twitter exhibits a much lower level of reciprocity between followers than other social networking services. However, they illustrated that the popularity of an account on its own is not a comprehensive measure of its influence.

The interactions between users and tweets play a large role in how Twitter functions within the realm of social media. Users label tweets for certain discussions or topics using a hashtag symbol ("#") followed by an identifying word or phrase that they can use to categorize and track related posts across Twitter (Kwak et al., 2010; Twitter, 2015c). A tweet can also

include photos, videos, and hyperlinks, and users can reply to a tweet by “mentioning” its author’s username with an “@” sign or by selecting the reply button, which creates discussion threads between users who might not follow each other (Kwak et al., 2010; Twitter, 2015d). Depending on an account’s privacy settings, the same is true when a user wants to repost another user’s tweet. To share a tweet, users can select the “retweet” button or add their own commentary with the quote button (Twitter, 2015b). Previously, reposting someone’s tweet required that users include “RT” before mentioning the author’s username followed by a colon and then the original message (Al-Khalifa & Al-Eidan, 2011; Kwak et al., 2010; Twitter, 2015a). Additionally, as of this writing, the 140-character limit for a tweet will soon no longer include the characters necessary to attach photos, videos, or graphics; nor will it include the characters within a mention at the beginning of a tweet (Isaac, 2016). This will allow users to add interactive elements to their tweets without breaking the 140-character restriction, appeasing restriction critics while still keeping what has come to define Twitter as an “economical and idiosyncratic form of communication” (Isaac, 2016).

Another reason Twitter is distinct from other message delivery platforms is because retweets spread so quickly through large audiences. The power of a retweet lies in its accessibility: Every individual user can decide what messages are important enough to propagate. Kwak et al. (2010) suggested that Twitter may actually work as a kind of information source, rather than a social network, and that the platform is in some way responsible for the development of a collective intelligence. However, they reported that much of what users talk about on Twitter originates via headline news and that followers of mass media organizations still believe their tweets are worth sharing (Kwak et al., 2010). According to a recent report on Twitter usage, with the exception of the Huffington Post and Yahoo News, the most frequently

shared links on Twitter still come from traditional news media organizations (Malik & Pfeffer, 2016). While a user might learn about a story from a popular hashtag or a number of different intermediary Twitter accounts, the agenda-setting power still belongs to mainstream news organizations whose influence is only strengthened by mechanisms like retweets, suggesting that tweets from these traditional organizations might be considered more credible than tweets from new media organizations as users see and share the former.

Credibility

Although it has been the subject of many years of communication research, credibility remains a complex, multifaceted construct composed of an array of complicated interconnected relationships between message, messenger, receiver, and medium (Roberts, 2010; Self, 1996). While the term “credibility” is often used interchangeably with terms such as “believability” and “trustworthiness,” no single, overarching credibility theory exists as of yet despite those decades of research. Previous research on this subject tends to focus on defining credibility as a construct and analyzing the complex relationships that comprise it (Rieh & Danielson, 2007; Roberts, 2010; Self, 1996).

Communication researchers have struggled to consistently define credibility, often measuring it according to related concepts such as likeability, trustworthiness, believability, or expertise (Delia, 1976; Fogg, 2003; Hovland & Weiss, 1951; Jacobson, 1969; Petty & Cacciopo, 1986). However, each concept carries its own connotations, relationships, and effects that make the pursuit of a simple conceptual definition for credibility an uphill battle in the dark.

“Likeability,” or favorability, is a term often used in reference to messenger credibility, but it is also defined according to the relationship between a receiver and source, physical attractiveness,

and source attractiveness (Petty & Cacciopo, 1986; Renn & Levine, 1991). Delia (1979) argued that the emphasis often placed on using these abstract concepts to measure credibility serves only to summarize the issue, rather than explain it.

As previous research has illustrated, credibility is ultimately determined by the message receiver and how he or she perceives certain attributes of the message, messenger, and/or medium (Delia, 1979; Gunther, 1992; Roberts, 2010; Self, 1996). A receiver's reception and contextualization of these attributes may affect the degree to which that receiver trusts a messenger and/or believes a message. While expertise is one attribute typically associated with credible sources, the weight that expertise has on the overall credibility of a message depends on the message recipient (Roberts, 2010). As Delia put it (1979), defining credibility is only meaningful if individuals are forced to decide "what to believe from whom" (p. 371).

Because credibility literature is so complicated and contradictory, Roberts (2010) developed a tool to measure credibility that would break the variable into two separate, yet interrelated, parts in his research on credibility scales. His study compared two well-known credibility scales to create a set of indexes intended to judge messenger and message credibility, which his findings demonstrated have several distinguishable differences that affect how they should be measured. Regardless of whether each item was meant to test message or messenger credibility, the correlations between many of the items suggested that message credibility and messenger credibility are closely related concepts.

Message credibility. While it is often equated with accuracy (Appelman & Sundar, 2015), message credibility essentially comes down to the perceived believability of a message, and it is often measured according to its persuasiveness (Wathen & Burkell, 2002). Like messenger credibility, message credibility depends on the characteristics of and interactions

between the message, messenger, medium, and receiver (Wathen & Burkell, 2002). Primarily, message characteristics such as content, consistency, credentials, and plausibility affect the credibility of a message, while receiver characteristics such as personal beliefs and context provide measures by which receivers can judge message discrepancies and incongruities (Wathen & Burkell, 2002; Wilson & Sherrell, 1993). The present study controlled for these message characteristics by using the same message content for each experimental condition, by keeping the message content consistent, by removing any visible evidence of credentials other than the author's name and avatar from the experimental treatments, and by crafting the messages such that they appear plausible despite being untrue in order to avoid message familiarity. This study also attempted to diminish the effects of these receiver characteristics by situating each message within the context of mass media; by asking participants to indicate their personal beliefs about Twitter, elected officials, the mainstream media, and the various news organizations used in the study in the survey pretest; and by asking participants to indicate their political ideology and political party in the survey posttest, in order to determine whether those beliefs significantly affected perceived message credibility and whether they should be controlled for in the data analysis.

Messenger characteristics—specifically, a messenger's perceived expertise or trustworthiness—also can affect how a message recipient assesses message credibility. According to the Elaboration Likelihood Model, persuasion is achieved through either the central or peripheral route (Petty, Brinol & Priester, 2009). Along the central route to persuasion, an individual considers his or her knowledge and previous experience to logically analyze all the information necessary in judging both message and messenger credibility. These judgments can lead to more salient changes in attitudes and increased attitude accessibility.

However, persuasion that occurs via the peripheral route does not necessitate such heavy cognitive activity. Instead, receivers rely on cognitive clues in the persuasion context to assess credibility (Petty, Brinol & Priester, 2009). A simple peripheral cue, such as the source of a message, can activate an expertise heuristic with which one can quickly judge whether the message is believable, although those judgments and their effects on attitude tend to be short-term (Hovland & Weiss, 1951; Petty, Brinol & Priester, 2009). Hovland and Weiss discovered in their 1951 research that individuals are more likely to be persuaded by messages from “high credibility” messengers than “low credibility” messengers but that these persuasive effects fade with time as a result of what they called the “sleeper effect,” a phenomenon in which messages from untrustworthy sources eventually become more persuasive (p. 645).

Further research has suggested that source characteristics may have the biggest impact on message credibility during a receiver’s first impression of a message and that the way a message becomes persuasive is ultimately less important than the fact that it was persuasive at the moment of first contact (Hovland & Weiss, 1951; Priester, Wegener, Petty, & Fabrigar, 1999).

Literature has suggested that both central and peripheral processes are common on the internet (Rains & Karmikel, 2009). While surfing the web, media consumers use peripheral cues as mental shortcuts because they may lack the motivation, knowledge, or interest to critically analyze online content. However, while searching the web for specific information, consumers are more engaged with the content and are more likely to evaluate it using central processes.

Liu, Liu, and Li (2012) investigated how messenger characteristics impacted microblog users’ retweeting behaviors during emergency events, which they expected would make users more likely to engage in central processing. They reported that heuristic cues such as source

trustworthiness, or messenger credibility, had a positive effect on information retweeting, as did source expertise and source attractiveness. However, they did not find consistent relationships between retweeting and systematic cues, such as amount of information and content objectivity, although the presence of multimedia was positively correlated with retweeting (Liu, Liu, & Li, 2012). More importantly, further analysis revealed that source expertise moderates the effects of source trustworthiness and content objectivity on tweet propagation such that expertise enhances these effects, while objectivity increases retweeting for expert sources. Conversely, subjective content is more likely to improve retweeting among amateur sources. (Liu, Liu, & Li, 2012). The authors suggested that these findings could have stemmed from their study's inability to ensure that participants only processed information via the central route to persuasion, which would not have resulted in such effects between expertise and credibility.

Because the present thesis primarily sought to investigate the relationships between messenger characteristics and credibility, the current study attempted to diminish any negative effects of the aforementioned variables on expertise and source trustworthiness. Therefore, the stimuli within each of this study's experimental conditions included only messages that were written in an objective and straightforward voice, were adapted from fake news stories, and had never been shared by the news organizations featured in the survey in order to avoid any persuasive effects of prior first impressions of the messages. As will be discussed in Chapter 3, the current study also attempted to control for need for information by only asking participants to rate the credibility of the stimuli, rather than requiring them to propagate content or search for specific information.

As for medium characteristics, as well the complex relationships involving their related variables, credibility literature mostly focuses on the different methods of information delivery

used by a messenger, specifically more modern platforms such as broadcast television and web sites and more traditional channels such as newspapers and radio (Gunther, 1992; Johnson & Kaye, 2004). On the web, organization, usability, presentation, and vividness are medium characteristics that positively affect how one perceives message credibility (Wathen & Burkell, 2002). The current study attempted to control for these medium characteristics by employing the same communication channel for each experimental treatment in the survey, by organizing the stimuli in the same way, by disallowing any interactive functions within the stimuli, and by presenting every stimuli in the study identically, except for the account name, avatar, and URL of each tweet, which varied depending on the account settings of the news organizations featured in the study.

According to Wathen and Burkell (2002), determining the credibility of online media is an iterative process that begins with evaluating medium characteristics such as presentation, usability, and organization. Errors in layout or text damage credibility, while links and other interactive features strengthen it. For the next step, assuming the information has passed the first step, users analyze the credibility of the message by weighing the expertise and trustworthiness of the source and the accuracy and relevance of the message itself. Referrals, direct experience, and labels can lead to source trustworthiness. If content fails to meet the expectations of the user, that user typically abandons the source to pursue another (Wathen & Burkell, 2002).

Framing or editing is generally considered a message characteristic (Wathen & Burkell, 2002) and is used with the goal of maintaining the credibility of a media message, although Liebes (2000) argued that it is potentially more manipulative than other tools of presentation. While the invisibility of the editing process is what makes it so powerful, it also allows the seamless integration of particular news frames.

Liebes (2000) explained how certain frames are chosen for certain news stories and found that one news event is likely to produce a number of competing frames. The frames are dropped, included, or run according to various levels of importance in a news segment, depending on a number of different factors. However, when message recipients learn of the frames and the editing processes behind them, many become disillusioned and doubt the believability of news messages. The controversies that result from this exposure often lead audiences to yearn for traditional news editing practices, which Liebes (2000) noted has the capacity to create coherence and credibility. To control for the effects of framing on message credibility, the present study used the same message content for each experimental condition and presented each message using the same objective, straightforward tone.

The familiarity between a message receiver and a messenger, message, or medium has also been categorized as a message characteristic, and previous research has illustrated how familiarity works with receiver characteristics, such as personal beliefs and context, to affect how an individual perceives message credibility (Gunther, 1992; Wathen & Burkell, 2002). Audiences tend to attribute more credibility to and recall more information from similar messages that reflect their already-held attitudes (Johnson & Kaye, 2004; Self, 1996; Wathen & Burkell, 2002). As Johnson and Kaye (2004) discovered, this tendency is evident online as well. According to their study, bloggers seek bias-reaffirming messages and are more likely to regard them as highly credible (Johnson & Kaye, 2004). As previously discussed, this thesis sought to control for message familiarity and these receiver characteristics by choosing messages that appear plausible despite being untrue, by presenting each message within the context of mass media, and by asking participants to indicate their personal beliefs in the survey pretest and

posttest in order to determine whether those beliefs had any significant effect on message credibility and whether they must be accounted for when examining the survey data.

Flanagin and Metzger (2007) argued that familiarity with a web site's genre as a provider of a specific type of message allows users to consider the persuasive intention of that genre and decide on an appropriate amount of trust or skepticism. Their study divided web site credibility into three categories—message, site, and sponsor credibility. The sponsor credibility of an online messenger depends on how users evaluate the reputation of the web site's brand and their experience with it, while site credibility refers to the visual and interactive aspects of a web site, as well as the quantity of information it presents. Mainstream news organizations' web sites were found to have more message and sponsor credibility than electronic commerce sites, special interest sites, and personal sites. Messages containing news and reference information were generally considered more credible than other kinds of content (Flanagin & Metzger, 2007). To diminish the possible effects of genre familiarity on message credibility, this study asked participants in the survey pretest to indicate whether they had ever heard of the news organizations used in the study and recoded this data according to each news organization's genre—either mainstream media or new media. This data was then used to test the relationship between genre familiarity and message credibility in order to determine whether to control for the former during data analysis, as will be discussed in Chapter 4.

Messenger credibility. Credibility research is often comparative in nature and largely sticks to analyzing the effects of messenger characteristics, such as source expertise and trustworthiness, on the believability of a message (Wathen & Burkell, 2002). However, many communication studies neglect to separate message credibility from messenger credibility or to investigate what causes individuals to attribute credibility differently across various

communication channels (Johnson & Kaye, 1998; Roberts, 2010; Wathen & Burkell, 2002).

Despite its close ties to message, credibility as a general construct is often defined according to how trustworthy a messenger is believed to be (Appelman & Sundar, 2015; Gunther, 1992). As it relates to rhetoric and persuasion, credibility has traditionally been associated with authority (Burton, 2013; Rieh & Danielson, 2007), a connotation as old as Aristotle's (2013) conception of ethos, pathos, and logos.

Ethos, which serves as an attribute of messenger credibility, indicates the authority behind a source, while pathos and logos refer to emotional and logical appeals, respectively (Aristotle, 2013; Burton, 2013; Rieh & Danielson, 2007; Roberts, 2010). From a journalistic perspective, a news organization with ethos would suggest greater authority and be considered more trustworthy than one lacking ethos (Aristotle, 2013; Burton, 2013). A messenger that is perceived as more ethical or having higher ethical standards might be more likely to be believed than one with lower ethical standards, although the latter may have reported the story more accurately (Aristotle, 2013; Burton, 2013; Tinkham & Weaver-Lariscy, 1994). For example, a traditional news organization such as the *New York Times* may garner more trust because of its ethos of authority, as exemplified by its ethical guidelines concerning objectivity and professionalism, despite the fact that its reputation has been damaged by more errors and scandals in its 162 years of publication than many younger media outlets (*New York Times*, 2004; Posner, 2005). As Kovach and Rosenstiel put it (2007), trust is necessary for journalists to effectively provide citizens with the information they need to be free and self-governing. Thus, in today's digital mass media environment, messenger credibility may play a more vital role than ever in how the public interprets information from various sources.

Previous research suggests that the traditional values and implications of journalistic authority and autonomy face new challenges in a digital media environment (Deuze, 2005; Hayes, Singer, & Ceppos, 2007; Singer, 2007). According to Hayes et al. (2007), mainstream news messengers often criticize new media organizations for straying from industry standards of professional ethical practices, such as objectivity and verification, for fear that they will lose their longstanding authority to set the public agenda as they lose audiences and advertisers. They also argued that journalistic autonomy now holds little meaning as a boundary between the journalist and the audience because of the audience's increasingly participatory role in the journalistic process, with citizens now serving as sources, information providers, and "watchdogs of the watchdogs" (Hayes et al., 2007, p. 274).

The concept of cognitive authority provides another lens through which persuasion researchers can examine messenger credibility. According to Wilson (1983), cognitive authorities are essentially the subset of information sources that one regards as credible, competent, or worthy of trust. However, proper influence is a necessary characteristic of cognitive authority, and a source is not considered a cognitive authority until it influences an individual's thoughts, although it may still be considered a credible source within one's sphere of interest (Wilson, 1983).

In his 1990 work on information quality and digital media, Olaisen discussed whether the emergence of new media has effectively changed the way users attribute cognitive authority. He described cognitive authority as a specific kind of influence and added that the proper nature of this influence necessitates credibility by definition (Olaisen, 1990). Receivers use messenger characteristics, such as source expertise and referrals from other credible sources, to evaluate messenger credibility, or cognitive authority. Olaisen (1990) explained that, although individuals

may find personal sources of information the most trustworthy, those sources may not necessarily have the most expertise, and individuals will seek alternative sources when they require expertise or competence. However, cognitive authority is more often associated with informal rather than formal sources of information, he wrote (Olaisen, 1990). Individuals tend to find informal, personal messengers more credible, as well as more preferable, when attempting to reduce uncertainty.

On Twitter, a messenger's influence can be measured and articulated a few different ways. The web application Klout provides users with a system-generated influence score based on their capacity to cause action on social media and is determined by the reach, amplification, and impact of their activity within different social networks (Edwards, Spence, Gentile, Edwards, & Edwards, 2013). Edwards et al. (2013) explained that a user's Klout score functions as a kind of heuristic cue and that a high Klout score indicates more credibility than a low Klout score.

However, according to Westerman, Spence, and Heide (2012), a Twitter user with a remarkably high number of followers is considered to have less messenger credibility than a user with a moderate number of followers, and the same can be said of users with too few followers. While the authors explained that accounts with fewer followers might be considered less credible because users believe a low follower count a reflection of poor content, users' aversion to accounts with many followers could be caused by a belief that a page owner with a high follower count is suspicious or a "follower collector," someone who spends more time seeking followers than posting useful content (Westerman, Spence, & Heide, 2012, p. 204). Additionally, users with a close ratio of followers to following were found to have more credibility than users with dramatic discrepancies between the two numbers. The authors suggested that this could be evidence that users have at least some expectation of reciprocity on Twitter and that large

discrepancies between an account's number of followers and the number of accounts they follow damages users' sense of community on Twitter (Westerman, Spence, & Heide, 2012). To control for the effects of this kind of articulated influence, the tweets used in the present study did not include the Klout score, number of followers, or number of accounts the organization follows.

As mentioned previously in relation to its effect on message credibility, an individual's familiarity with a message, messenger, or medium also can affect messenger credibility.

According to Johnson and Kaye (2010), reliance on an online source is the strongest predictor of whether it is considered credible. In another study (Johnson & Kaye, 2004), they also found that blog users perceived blogs to be significantly more credible than mainstream media sources. The results of their research mirrored findings from earlier studies on traditional media, which found that the more familiar a receiver is with a type of media, or communication channel, the more credible the individual believes the medium to be (Flanagin & Metzger, 2000; Johnson & Kaye, 1998; Johnson & Kaye, 2000; Westley & Severin, 1964).

More recently, a *Columbia Journalism Review* report (Funt, Gourarie, & Murtha, 2016) revealed that individuals who preferred online news found stories from new media organizations, specifically BuzzFeed, more credible than individuals who preferred to consume news via traditional channels. However, that study also reported that participants for whom the internet was their primary method of news consumption rated online news less credible than people who did not consume news primarily on the internet, regardless of whether the story in question was from a new media or mainstream news organization.

In their 2004 study, Johnson and Kaye compared blogs to talk radio and suggested that media consumers might be more likely to believe information when sources are more open about their biases, as opposed to traditional sources that might stealthily weave their opinions into their

stories under the guise of objectivity. Participants believed that blogs contained more depth and critical analysis than other media sources, although many did not believe blogs to be especially fair. The authors suggested that the value of fairness, while valued in traditional journalism, might have been replaced with a new virtue of bias in blogging communities (Johnson & Kaye, 2004).

Das and Pavlíčková (2014) found that when media consumers are unfamiliar with the messenger, or “author,” of interactive media content—generally referred to throughout the study as the “text”—they replace the lack of familiarity with an imagined author, which increases their perceived understanding of the source and helps them decide whether it is credible, or trustworthy (p. 382). The “author” applies to the producers, systems, and motivations behind an interface, as well as the generating structures and relationships underlying that interface as a user encounters them (Das & Pavlíčková, 2014, p. 382).

The study proposed that a reader’s prior experience with other texts establishes familiarity with the authors and influences future encounters with media credibility, giving the reader context rather than serving as an originator of true meaning. Das and Pavlíčková (2014) argued that familiar media can serve as either filters of information or information gates and illustrated the utility of media filters and media gates for young professionals and adolescents. Additionally, their research revealed that, in the face of an unfamiliar author, readers use socially determined uncertainty reduction tactics, such as confirming identity, to establish familiarity. These protocols also help users understand how supporting texts frame the author and how the values that denote trustworthiness, or credibility, are socially negotiated (Das & Pavlíčková, 2014).

Antheunis et al. also examined messenger credibility and first impressions through the lens of uncertainty reduction in their 2012 study, which compared uncertainty reduction strategies in face-to face, webcam-supported, and text-only computer-mediated communications. These authors found that individuals tend to disclose more intimate information and ask more intimate questions in the absence of face-to-face interaction and nonverbal cues in order to reduce uncertainty and predict the attitudes and behaviors of others, as well as become more familiar with them (Antheunis et al., 2012).

The Antheunis et al. study (2012) illustrated that asking questions is a valuable instrument in reducing uncertainty in computer-mediated communication. More importantly, it demonstrated the importance of uncertainty reduction strategies in social information processing theory and forming first impressions. The authors defined uncertainty reduction as the gathering of information that allows the information seeker to predict someone's attitudes and behavior (Antheunis et al., 2012). They explained that, upon meeting, people attempt to develop first impressions of each other to reduce the uncertainty they have about the other person. Social information processing theory poses that people also seek to form first impressions of each other in computer-mediated communication (CMC) conditions by adapting to the lack of available nonverbal cues and substituting language and text-only social cues (Antheunis et al., 2012). This study proposed that in CMC conditions, first impressions are made through uncertainty reduction strategies such as self-disclosure, question asking, and question disclosure intimacy. Previous research from Kiouisis (2001; 2003) has also suggested that using the internet for the purpose of interpersonal communication might have a positive effect on how users evaluate its credibility as a medium.

As previously discussed, the experimental treatments within the present study used only messages that were written in an impersonal, objective, declarative voice; were adapted from hoax news stories; appeared plausible despite being false; and had never been shared by the news organizations featured in the survey to control for the effects of question-asking, self-disclosures, and message familiarity on messenger credibility. Additionally, this study also used the data associated with genre familiarity, which was explained previously in connection to message credibility, to further test the effects of messenger familiarity on messenger credibility. If this variable were revealed to have a significant relationship with messenger credibility, it would be controlled for during data analysis. Finally, to control for the effects of medium familiarity on messenger credibility, the stimuli within each experimental condition in this study were presented using the same communication channel, and participants were asked in the survey pretest how often they use Twitter in order to determine whether any relationship existed between Twitter use and messenger credibility within the three experimental conditions in the study.

Receiver characteristics. Above all, receiver characteristics have the greatest impact on how an individual perceives the credibility of a message, messenger, or medium. While other factors might be more strongly associated with credibility as a conceptual definition, their significance ultimately depends on the message receiver and the interconnected relationships that arise as a result of its pervasive influence (Delia, 1979; Gunther, 1992; Roberts, 2010; Self, 1996). Receiver characteristics can include one's involvement with a topic; one's need for information; one's knowledge and opinions; one's personal or political predispositions; one's need for cognition; and one's "social location"—an individual's location in time and space and in their network of social relationships (Carr et al., 2014; Olaisen, 1990, p. 92; Wathen &

Burkell, 2002) As for one's social location and one's knowledge and opinions, the present study attempted to diminish the effects of these receiver characteristics by using messages that dealt with topics relevant to participants. The messages to which participants were exposed were chosen because they mentioned the participants' generation or geographic location in order to increase the possibility that the topics would each be at least somewhat salient to them. Because this study was conducted at the University of Alabama and consisted mostly of responses from college students, participants' social location was expected to be relatively similar throughout this study's population of interest.

Receiver characteristics can also combine with message and medium to affect message credibility by way of one's involvement with a topic or message. Fogg (2003) argued that a receiver's motivation or need for information is especially influential because of its impact on prominence. In online environments, prominence refers to the likelihood that a receiver will notice and evaluate an element of a web site. The more cognitively involved a user is with a message, the more elements he or she will perceive as prominent, and as Prominence-Interpretation Theory suggests, the elements with the most prominence will have the greatest impact on a user's credibility assessment, assuming the user has the ability to interpret those elements (Fogg, 2003). For example, an individual searching for important health information online might notice more errors in the message or medium than someone with less motivation and might judge the credibility of that information by the errors he or she noticed. This echoes what this chapter previously discussed regarding the Elaboration Likelihood Model of persuasion, which suggests that highly motivated users, such as those looking for something specific, process information via the central route to persuasion (Petty, Brinol & Priester, 2009). These users are more cognitively involved than those who take the peripheral route, causing

more aspects of the content in question to become prominent and potentially damaging to the perceived credibility of the message or messenger (Petty, Brinol & Priester, 2009).

However, previous work on the effects of involvement on credibility perception suggests that highly involved receivers are more likely to engage in “biased processing,” or message processing guided by prior opinion in order to maintain one’s original preconceptions (Gunther, 1992, p. 151). In order to diminish these effects of involvement, prominence, and motivation on perceived credibility, the participants of this study were not asked to find anything specific within the messages to which they were exposed, as this chapter discussed previously in relation to message credibility.

Research also illustrates that receiver characteristics can affect cognitive authority and work alongside message, medium, and source characteristics to influence messenger credibility. In addition to ethnicity (Spence, Lachlan, Westerman, & Spates, 2013), which this study tested in its relation to messenger and message credibility during post hoc analysis, an important receiver characteristic that can affect how a media consumer attributes messenger credibility is one’s predisposition toward the government or the media (Carr et al., 2014; Gunther, 1992; Tsfati & Cappella). Carr et al. (2014) reported that individuals’ media skepticism and political cynicism have a conditional relationship with how those individuals ascribe news credibility to different media sources, specifically, citizen journalists and mainstream news sources.

The authors defined citizen journalism as an array of “amateur information reporting and sharing activities” and broadly identified the mainstream media as daily newspapers and national, local, and cable television news (Carr et al., 2014, p. 454). Media skeptics were described as feeling personally alienated and suspicious of the news media, while political cynics

were characterized by their distrust of the government and politicians as a result of government performance, congressional scandals, and other factors (Carr et al., 2014).

Their study reported that credibility perception of mainstream news and citizen journalism depends on the media skepticism and political cynicism of the individual assessing the sources (Carr et al., 2014), just as Gunther previously suggested (1992). Media skeptics and political cynics regarded citizen journalism as more credible than mainstream journalism, and inversely, non-cynics and non-skeptics attributed more credibility to mainstream news than citizen journalism (Carr et al., 2014). The authors proposed that media skeptics' suspicion of traditional journalistic standards makes them more critical of mainstream news outlets and less likely to find them trustworthy (Carr et al., 2014). They suggested that skeptics might seek citizen journalism as an alternative to mainstream news.

Similarly, the authors speculated that political cynics tend to criticize mainstream media more than citizen journalism because "political scandals prime political cynicism" (Carr et al., 2014, p. 465). Cynics also may imagine citizen journalists as political outcasts without the social or political constraints of mainstream media whose ethos of authority and objectivity seems to alienate cynics. For these individuals, traditional news organizations might be considered less trustworthy because their long histories with readers have been dotted with more errors and scandals than alternative outlets with cleaner, albeit much shorter, records with the public.

Similarly, because political cynicism is more closely related to message credibility, the messages chosen for the present study were not necessarily political in nature, allowing the results of this thesis to focus more on messenger credibility, although both message and messenger credibility were measured to obtain an accurate representation of overall credibility (Roberts, 2010).

Receiver characteristics, especially one's personal or political predispositions, play a large part in how individuals attribute credibility and may have an effect on the degree to which individuals trust a message or messenger on the web, specifically on a user-generated content distributor such as Twitter (Carr et al., 2014). Therefore, this study primarily investigated the relationships between political cynicism, media skepticism, and perceived credibility on Twitter, in addition to the relationships between credibility and source type.

Generational Divide

The generational divide in news consumption has been discussed at length in communication literature (Media Insight Project, 2014; Newman, Levy, & Nielson, 2015). Researchers have known for decades that demographic receiver characteristics such as age and education can affect how individuals evaluate the credibility of a messenger or medium, although these demographics cannot predict their effects (Gunther, 1992; Kioussis, 2001; Westley & Severin, 1964). As traditional media usage has decreased while online news sources become more popular, the resulting displacement effects appear to be greater among younger age groups (Mitchelstein & Boczkowski, 2009). Young adults now obtain 74 percent of their news from online messengers, and previous studies have reported that college students, in particular, attributed more credibility to digital newspapers and political web sites than traditional media alternatives (Ivancin et al., 2015; Johnson & Kaye, 1998). There are even gaps within this generation. Younger millennials turn to social networking sites for news more often than older members of their age group (Media Insight Project, 2015), and they are more likely to prefer social media as a method of information discovery (2014).

While younger students can consistently determine low-credibility sources from high-credibility sources, they have no significant preference for either kind of messenger and seem less interested in the value of messenger authority than adults (Rieh & Danielson, 2007; Rieh & Hilligoss, 2008). Johnson and Kaye (2015) suggested that the continued usage of media that one considers to be less than credible may point to gratifications that outweigh the desire for credibility, such as need for cognition (Tsfati & Cappella, 2005). Although social media is not considered very credible as a broad communication channel, users do not appear to deliberate the merits of credibility when deciding whether social media content satisfies their needs (Johnson & Kaye, 2015).

Young adults have grown up with the internet and are familiar with new media as a communication channel, as well as kind of messenger (Rieh & Hilligoss, 2008). Some studies have reported that more experienced new media users tend to find online news more credible than those who are inexperienced (Flanagin & Metzger, 2000; Johnson & Kaye, 2000), and some have suggested that, as receivers grow more familiar with different kinds of sources, they attribute more credibility to messages from those kinds of sources (Flanagin & Metzger, 2007; Kiousis, 2003). Self (1996) explained that a receiver's familiarity with a message could even improve the perceived credibility of information one already knows to be false.

However, some social media platforms serve as messengers in their own right. Although many of these applications do not create their own content, they are often listed in source categories alongside news organizations, despite the fact that mainstream and new media news sources use them to share their messages online. While traditional news organizations move away from the one-to-many, authoritarian communication model that defined journalism when scarcity determined credibility (Shirky, 2013), web-based platforms such as Twitter and

Facebook function as intermediary content distributors and connect messengers with new media audiences (Bell, 2015; Morris, Counts, Roseway, Hoff, Schwarz, 2012). Specifically, Twitter functions as both a communication channel and a source of information by disseminating mainstream news content, connecting users to journalists and public figures, amplifying messages from popular sources through retweets, and presenting users with breaking news and general news trends (Kwak et al., 2010; Media Insight Project, 2015; Morris et al., 2012; Smith, 2011; Sonderman, 2012).

The Reuters Institute reported in 2015 that a majority of Americans said they prefer online news sources to other kinds of media messengers, and 52 percent of Americans said they use web platforms to access news from new media news organizations. The ability to control one's media experience has been positively associated with a preference for online news among young adults, who comprise much of Twitter's user base (Williamson, 2012). Moreover, users who have more experience with Twitter as an intermediary messenger and information source are likely to attribute more message and messenger credibility to tweets and their authors (Morris et al., 2012). While millennials do not by and large find new media news organizations such as BuzzFeed and the Huffington Post more credible than mainstream news organizations such as CNN and *USA Today* (Mitchell, Gottfried, & Matsa, 2015), they trust user-generated content more than content from traditional media sources (Kassoway, 2014). These findings suggest that, on a platform built on social interest and user-generated content, news organizations that embrace material created by that platform's user base might be considered more credible than organizations that do not, especially when that user base largely consists of young adults.

Summary and Research Questions

Building on the results of Carr et al.'s (2014) research, which found that political cynics and media skeptics are more likely to find citizen journalists more credible than mainstream journalists, this study investigates how political cynicism and media skepticism affect credibility perceptions on Twitter. Specifically, this study hoped to learn whether similar effects were present when participants were asked to judge the message and messenger credibility of new media news sources and mainstream news sources on Twitter. However, because research on this topic is so new, this study stops short of proposing a hypothesis and, instead, offers the following research question:

RQ1: What are the relationships, if any, among 1) political cynicism and media skepticism, 2) messenger credibility and message credibility, and 3) new media news sources and mainstream news sources on Twitter?

This study aimed to discover whether any relationship exists between a participant's level of political cynicism and media skepticism and how that participant evaluates the message and messenger credibility of tweets from new media news sources and mainstream news sources. If relationships exist among these variables, this study hoped to learn the nature of those relationships and control for their effects.

Much of the literature referenced in this chapter does not investigate the relationship between message or messenger credibility and specific type of news organization, with the exception of a few more recent reports from the *Columbia Journalism Review* and the Pew Research Center (Funt, Gourarie, & Murtha, 2016; Mitchell, Gottfried, & Matsa, 2015). In those studies, researchers found limited variations in perceived credibility of specific news organizations across different age groups and that digital-native outlets such as BuzzFeed ranked

lower than many mainstream outlets in terms of trust (Funt, Gourarie, & Murtha, 2016; Mitchell, Gottfried, & Matsa, 2015).

However, previous research suggests that the role of Twitter as a communication channel, as well as an intermediary source of news content, may play a part in how users judge the credibility of specific news organizations, especially those born online (Schmierbach & Oeldorf-Hirsch, 2012). This study hopes to determine whether study participants judge message and messenger credibility differently for new media and traditional news organizations on Twitter. Participants were asked to assess the message and messenger credibility of tweets from new media news outlets and mainstream news outlets, as well as from a control group bearing a fake news source created solely for the purposes of this study. In order to control for message, tweets remained the same for each source group, though they were arranged to ensure that no participant sees the same message or messenger more than once.

Because they are so closely related, message and messenger credibility must both be tested in order to contextualize the relevant data. However, previous literature on this topic fails to show a consistent directional relationship between messenger type and message or messenger credibility. Therefore, this study proposes the following research questions:

*RQ2: What are the relationships, if any, between perceived **message** credibility and type of news source (i.e. “mainstream” news source or “new media” news source) on Twitter?*

*RQ3: What are the relationships, if any, a significant relationship between perceived **messenger** credibility and type of news source (i.e. “mainstream” news source or “new media” news source) on Twitter?*

Social media platforms such as Twitter are largely considered new media; therefore, Twitter users are by definition more familiar with new media as a content distributor than

nonusers. As previous research on this topic has suggested (Das & Pavlíčková, 2014; Flanagin & Metzger, 2007; Johnson & Kaye, 2004; Johnson & Kaye, 2015), users might attribute more credibility to new media sources than mainstream media sources because they have more experience with them. Therefore, participants were asked in a pretest to indicate their familiarity with Twitter, as well as each of the news sources used in this study, in order to control for possible effects.

Additionally, new media, specifically web sites and blogs, were designed for user contribution and participation (O'Reilly, 2004). They tend to use more informal language and engage in more question-asking behaviors than traditional media sources (O'Mahony, 2014), which Antheunis et al. (2012) argued reduces uncertainty in computer-mediated communication. Their findings suggest that direct exposure to or familiarity with a personable new media news source might increase its credibility (Antheunis et al., 2012), especially those who might not expressly require traditional expertise on a topic (Olaisen, 1990). Thus, the content of the tweets remained the same across each experimental group in order to control for message tone.

CHAPTER 3

METHODS

This study tested the proposed research questions using quantitative research methods, specifically, an experimental design using an online experimental survey intended to measure how respondents perceived the message and messenger credibility of tweets from mainstream and new media news organizations, as well as tweets from a control group bearing a fake news source crafted solely for this study. In order to control for message, the content of the tweets remained the same for each source group; however, they were arranged to ensure that no participant saw the same message or messenger more than once. The mainstream source group consisted of tweets from *USA Today*, the *New York Times*, the *Washington Post*, and the *Wall Street Journal*, while the new media source group consisted of tweets from the Huffington Post, BuzzFeed, Gawker, and Vox. The control source group consisted of tweets from fake news sources whose names were invented for this study: @TodaysNews, @ThisJustIn, @UpToDateNews, and @TheInfoSite. The avatars displayed next to each account name in the control source group featured generic graphic logos created by this study's author.

Participants in Group 1 were asked to evaluate the message and messenger credibility of four tweets from the mainstream news source group; Participants in Group 2 were asked to evaluate the message and messenger credibility of four tweets from the new media news source group; and Participants in Group 3 were asked to evaluate the message and messenger credibility of four tweets from the control source group. Participants were also asked Twitter usage and favorability questions, messenger familiarity and favorability questions, media skepticism and

political cynicism questions, news and media consumption questions, and demographic questions for post hoc analysis. This study’s experimental procedure is outlined further in Figure 3.1.

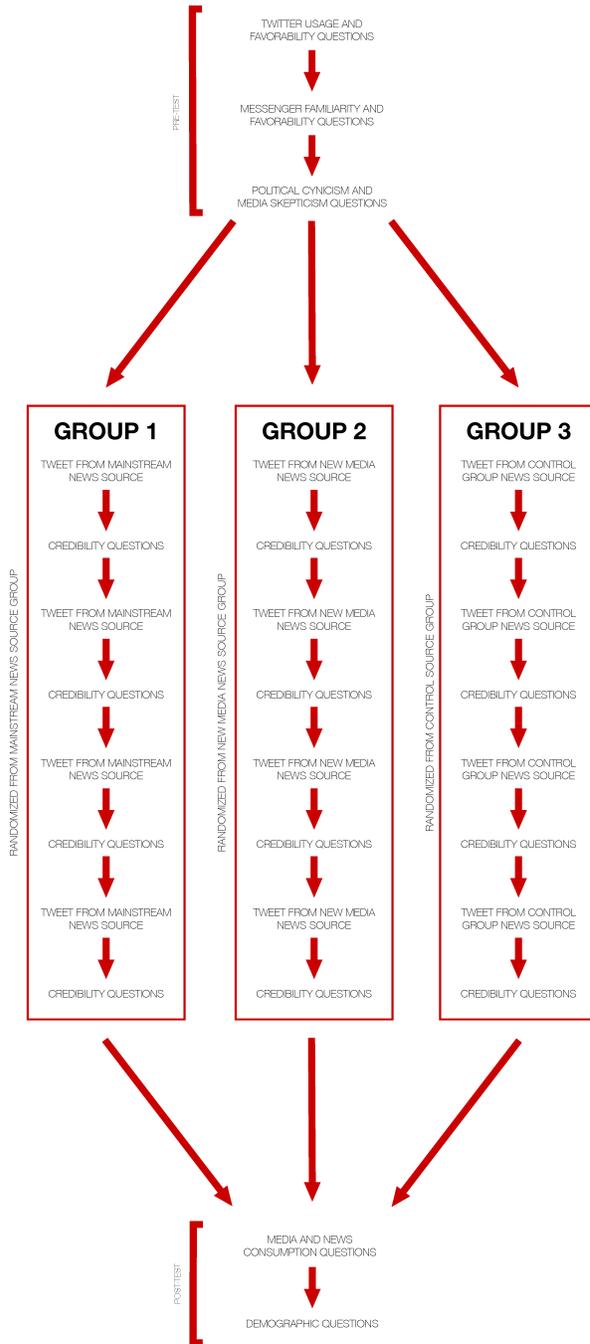


Figure 3.1. Survey procedure.

Population and Sample

Young adult Twitter users with at least some college education, specifically those who fall between the ages of 18 and 24, served as the population of interest because they comprise a majority of Twitter's total adult user base (Duggan, 2015). New media news organizations such as BuzzFeed and Vox target this demographic with interactive features and user-generated content, which have been found to affect how millennials perceive the credibility of a source (Ellis, 2014; Kassoway, 2014; Wathen & Burkell, 2002). Thus, this population is appropriate when testing how young adults' credibility perceptions differ among new media news sources and mainstream news sources. This study was conducted online and in English and recruited participants through email, social media, and the University of Alabama's research pool of undergraduate students enrolled in select College of Communication and Information Sciences courses. Therefore, the sampling frame for this population consisted of English-speaking young adults with internet access.

Because this research was conducted at the University of Alabama, the tweets used in this study focused on stories relevant to college-age students in the South. The tweets were written in a straightforward voice, indicating no particular political preference. Each of the five messages used in the tweets referenced a fake news story adapted from a hoax or satirical news web site in order to test message credibility. Some of the story headlines were changed to increase their ambiguity and social relevance. The first message was adapted from a fake May 2015 story from World News Daily Report claiming that an Alabama postal worker was suspended after it was revealed that he had sexual relations during work hours and had fathered five illegitimate children as a result (Flanagan, 2015). The second message referred to a fake September 2014 story from The Daily Currant that claimed a college now offers a course on "selfies" (Daily

Currant, 2014). A selfie is generally a photo taken of oneself using a smartphone camera with the intention to share on social media (Saltz, 2015).

The third message referred to a fake January 2015 story from the National Report claiming that the American Internal Revenue Service would begin automatically deducting student loan payments from the paychecks those who owe more than \$2,000 (Crouton-Skitch, 2015). The fourth message referred to an October 2014 story from The Onion that featured satirical reactions to a true report from the Executive Office of the President of the United States that originally included “emojis” to address college debt, insulting some young people (Onion, 2014). More than an emoticon, an emoji is a small pictographic ideogram usually within a text, email, or social media platform that represents a facial expression, concept, or idea; emojis are often considered a casual, comedic kind of communication (Stark & Crawford, 2015). These four messages are listed below:

- Alabama postal worker revealed to have fathered 5 illegitimate children after 6 years of having sex on the job
- University students can now take course on selfies
- IRS will soon begin automatically deducting student loan payments for those with more than \$2,000 in debt
- Millennials insulted after government report uses emojis to address student loan debt

The timestamp, Verified badge, Follow button, View Summary button, location, and number of retweets, favorites, and replies were excluded from the manipulated tweets to control for the influence of referrals (Wathen & Burkell, 2002). The only differences between the three groups’ tweets were the source and, consequently, the source’s avatar and short URL alias. An example of the layout of the tweets can be found in Figure 3.2.



Figure 3.2. Tweet design. The study stimuli were designed to look as if each were a screenshot taken of a tweet from one's Twitter feed.

Twitter Usage and Favorability Questions (Pretest)

Study participants were asked in the survey pretest to indicate how frequently they use Twitter in order to provide data for post hoc analysis. They were also asked to select on a five-point ordinal scale the degree to which they find messages they see on Twitter favorable. These questions and scales can be found in the Appendix A.

Messenger Familiarity and Favorability Questions (Pretest)

In order to determine a participant's pre-existing relationship with the mainstream and new media news organizations used in this study, the survey pretest asked respondents to indicate whether they had ever heard of the *New York Times*, BuzzFeed, the *Washington Post*, Gawker, the *Wall Street Journal*, the Huffington Post, *USA Today*, or Vox. This question was adapted from a recent Pew Research Center trust questionnaire (Mitchell, Gottfried, & Matsa, 2015). Individual news organization familiarity data was later recoded to create new scales for new media news familiarity and mainstream news familiarity, which were used to test genre familiarity in post hoc analysis.

For each news organization that respondents indicated they recognized, they were then asked to select on a five-point ordinal scale the degree to which they find it favorable. News organization favorability data was also later recoded to create a new media news favorability scale and mainstream news favorability scale for post hoc tests. These questions and scales can be found in the Appendix A.

Political Cynicism and Media Skepticism Questions (Pretest)

In order to investigate the relationships among political cynicism, media skepticism, message credibility, and messenger credibility for RQ1, and to control for possible confounding receiver variables, participants were asked to answer questions adapted from Carr et al. (2014) pertaining to their level of political cynicism and media skepticism. These questions asked participants to choose on a five-point Likert scale whether they a) strongly disagreed, b) disagreed, c) neither agreed nor disagreed, d) agreed, or e) strongly agreed with two sets of positive statements adapted from Carr et al. (2014) indicating mainstream media trust and political trust. These statements are listed in the Appendix A. Responses were then averaged to measure overall media skepticism and political cynicism. Respondents scoring below the median for each were considered skeptical or cynical, and ANCOVA was run to determine whether political cynicism or media skepticism had any effect upon participants' perceptions of message and messenger credibility. If significant relationships ($p < .05$) were found, these responses would be controlled for in the final calculations for messenger and message credibility before testing RQ2 and RQ3.

Credibility Questions

Participants were exposed to four tweets from one of three groups: 1) a new media news source group, 2) a mainstream news source group, or 3) a control group with a made-up news source. No participant was exposed to the same message or source twice. After each exposure, the participants were asked to answer questions pertaining to the message and messenger credibility of the tweet they just viewed. These questions mirrored those used by Roberts (2010) to measure message and messenger credibility and asked participants to indicate their responses using a five-point Likert scale. The instrument used to measure messenger credibility uses five bipolar adjectives and asks respondents to indicate along a continuum whether they believe the source of a tweet 1) cannot/can be trusted, 2) is inaccurate/accurate, 3) is unfair/fair, 4) does not/does tell the whole story, and 5) is biased/not biased (Roberts, 2010). These survey questions are outlined in the Appendix A. To test message credibility, we used a similar instrument that also uses five bipolar adjectives and asks respondents to indicate along a continuum whether they believe the tweet itself is 1) unbelievable/believable, 2) inaccurate/accurate, 3) untrustworthy/trustworthy, 4) biased/not biased, and 5) incomplete/complete (Roberts, 2010). These survey questions are outlined in the Appendix A. This study used their responses to build a credibility index of new media and mainstream news messengers/messages on Twitter. This index is discussed further in Chapter 4.

Media and News Consumption Questions (Posttest)

To determine respondents' familiarity with various communication channels and news organizations, respondents were asked several news consumption questions, which can be found in the Appendix A. These questions focused on social media news consumption and were

adapted from a recent Pew Research Center study (Mitchell, Gottfried, & Matsa, 2015). For each kind of messenger, the participants were asked to indicate how frequently they consume news from that source on social media.

Demographic Questions (Posttest)

Participants were also asked to provide demographic information, specifically, their gender, age, race, ethnicity, education level, college major, and political preference in order to control for confounding variables. These survey questions are outlined in the Appendix A.

Testing Research Questions

To answer RQ1, this study used ANOVA and ANCOVA to analyze participant responses to questions intended to measure political cynicism and media skepticism in order to investigate the relationships between political cynicism and media skepticism, and message and messenger credibility among new media and mainstream news organizations on Twitter. In order to test RQ2, this study used ANCOVA to compare respondents' perceptions of message credibility for new media news sources and mainstream news sources on Twitter, using media skepticism, mainstream media favorability, new media favorability, Twitter use, Twitter favorability, and experimental condition as covariates. To test RQ3, ANCOVA also was used to compare respondents' perceptions of messenger credibility for new media news sources and mainstream news sources on Twitter, and included media skepticism, mainstream media favorability, new media favorability, Twitter use, Twitter favorability, and experimental condition as covariates as well.

CHAPTER 4

RESULTS

Introduction

In addition to answering a research question about media skepticism and political cynicism as they relate to Twitter news credibility, the present study sought to determine whether the origins of news organizations, specifically whether they began traditionally or via new media, affected how participants perceived message and messenger credibility on Twitter. This chapter discusses the results of the data analysis mentioned in the previous section by describing the demographics of this study's participants, by analyzing the scales used in this study, by testing this study's research questions, and by listing the results of post hoc analysis.

Participant Demographics

To be included in this study, participants had to complete the scales for the designated measurements and finish the survey in more than three minutes. The responses were narrowed this way because it was assumed that participants who finished the survey in fewer than three minutes would not have had time to read and respond to the questions thoroughly. Of the 349 responses obtained via Qualtrics, 320 met the population requirements.

This study was conducted at the University of Alabama and recruited participants through classes within the College of Communication and Information Sciences and the college's research pool. Therefore, of the 266 participants who reported having at least some college education and who provided major information, 79% reported that their major reflected the

departments within the college, such as the departments of journalism (10%), communications (6%), advertising and public relations (39%), and telecommunication and film (24%). The remaining 21% of the question's respondents indicated that they were majoring in a field outside the College of Communication and Information Sciences.

Participants were randomly assigned experimental treatments by Qualtrics. The new media condition and control group condition each included 104 participants, and the mainstream media condition included 108 participants.

Most of the study participants fell between 18 and 25 years old (95%, $N = 320$), with 68 participants at 18 years (21%), 146 participants at 19 years (46%), 54 participants at 20 years (17%), 21 participants at 21 years (7%), 3 participants at 22 years (1%), 3 participants at 23 years (1%), 5 participants at 24 years (2%), and 4 participants at 25 years (1%). The mean age of participants was 19 years ($SD = 2.12$).

The majority of study participants indicated that they had at least some level of college education (85%, $N = 320$). One participant reported having a doctoral or professional degree, 7 participants reported having a master's degree (2%), 36 participants reported having a bachelor's degree (11%), 6 participants reported having an associate's degree (2%), 221 participants reported having some college education but no degree (69%), and 1 participant did not indicate their level of education. Interestingly, 48 participants reported having only a high school diploma or equivalent (15%). However, some participants might have misunderstood this question, providing only their highest completed level of education, rather than their current educational level as a student.

Of the 221 study participants who reported having some college education but no degree, almost two-thirds identified as freshmen (62%), while nearly one-third identified as sophomores

(30%). Fifteen participants identified as juniors (7%), and two identified as seniors (1%). The high numbers of freshmen and sophomores were expected, as the research pool was largely composed of undergraduate students taking lower-level classes that require students to acquire research participation credits or to complete an alternative assignment.

The gender demographics for this study skewed female, with 252 identifying as such (79%). Although one survey respondent did not provide gender information, the remaining 67 respondents identified as male, comprising 21% of the total population sample. Similarly, 267 of the 319 participants who provided their ethnicity or race identified as White (84%), while 26 identified as Black or African-American (8%), 15 identified as Hispanic or Latino/Latina/Latinx (5%), 6 identified as Asian (2%), 3 identified as American Indian or Alaska Native (1%), and 2 identified as more than one ethnicity (1%).

Scale Analyses

The political cynicism, media skepticism, message credibility, and messenger credibility scales used in this study were tested for reliability before the survey data was used to test the research questions, and these scales were determined to have high reliability, $\alpha \geq 0.8$. These scales were chosen because previous research indicated they had high reliability (Carr et al., 2014; Roberts, 2010).

Political cynicism scale. In order to study RQ1, participants were asked questions pertaining to political cynicism in the survey pretest. To determine the level of political cynicism, participants were instructed to mark on a five-point Likert scale the extent to which they agreed or disagreed with two positive statements indicating political trust. Each scale had a range of 1 to 5, creating a combined scale of overall political trust with a range of 2 to 10. The

lower the score, the higher the level of political cynicism. The combined scale had a range of 2 to 10 ($Mdn = 6$), $M = 5.6$, $SD = 1.71$, $N = 319$. A total of 134 respondents scored below the median and were therefore considered political cynics (42%, $N = 320$).

Media skepticism scale. Further investigating the RQ1, the survey pretest also asked participants questions regarding mainstream media skepticism. The media skepticism scale was similar to the political cynicism scale. To determine media skepticism, participants were asked to indicate on a five-point Likert scale the extent to which they agreed or disagreed with four positive statements indicating mainstream media trust. Like the instrument used to measure political cynicism, each media skepticism scale had a range of 1 to 5, with the higher scores indicating more media trust and less media skepticism. However, the combined four scales had a range of 4 to 20 ($Mdn = 12$), $M = 11.91$, $SD = 2.47$, $N = 319$. A total of 130 participants scored below the median and were subsequently labeled media skeptics (41%, $N = 320$), and ANOVA was used to determine whether mainstream media skepticism had any effect upon participants' perceptions of message and messenger credibility, as well as whether those perceptions were affected by the experimental conditions to which participants were randomly assigned.

Message credibility scale. To determine the message credibility of the four tweets within each of the three experimental groups, participants were asked to indicate the credibility of four different tweets by four different messengers using a five-point scale of five sets of bipolar adjectives for each tweet. Unlike the political cynicism and media skepticism scales, the higher the score, the higher the believed message credibility of the tweet. This scale had a range of 5 to 25 for each of the four tweets, creating a combined range of 25 to 100 for each experimental group ($M = 58.69$, $SD = 12.37$, $N = 320$).

Messenger credibility scale. The messenger credibility scale used in this study was similar to the message credibility scale. To determine the messenger credibility of the tweets within the three experimental groups, participants were asked to indicate the credibility of four different authors of four different tweets using a five-point scale of five sets of bipolar adjectives for each tweet. Like the message credibility scale, the messenger credibility scale had a range of 5 to 25 for each of the four tweets and a combined range of 25 to 100 for each group ($M = 61.05$, $SD = 12.98$, $N = 320$). Again, the higher the score, the higher the believed messenger credibility of the tweet.

Test of Research Questions

This study's proposed research questions, which were discussed in Chapter 2, sought to investigate the various relationships between political cynicism, media skepticism, message credibility, messenger credibility, and the origins of news organizations. Specifically, the research question hoped to determine whether any relationships existed among these variables and, if so, the nature of those relationships.

RQ1: What are the relationships, if any, among 1) political cynicism and media skepticism, 2) messenger credibility and message credibility, and 3) new media news sources and mainstream news sources on Twitter?

Political cynicism, message credibility, and messenger credibility. A one-way between-subjects ANOVA was conducted to compare the effect of political cynicism on message credibility in the mainstream, new media, and control conditions, revealing no significant effect of political cynicism on message credibility at the $p < .05$ level for the three conditions.

Likewise, a one-way between subjects ANOVA, which compared the effect of political cynicism on messenger credibility in the mainstream, new media, and control conditions, found no significant effect of political cynicism on messenger credibility. Political cynics did not perceive the tweets to which they were exposed to be significantly more or less credible than participants scoring above the median on the political trust scale. Although previous research from Carr et al. (2014) found a significant relationship between political cynicism and perceived credibility of citizen journalism and mainstream journalism using video news, this study concludes that it had no significant effect on mainstream or new media news credibility among this study's population on Twitter. This finding could be due to the content of the tweets, which were not necessarily political in nature.

Media skepticism and message credibility. A one-way between-subjects ANOVA compared the effects of media skepticism on perceived message credibility in the mainstream, new media, and control conditions. Results revealed a significant effect of media skepticism on message credibility such that media skeptics reported significantly less overall message credibility ($M = 55.56$, $SD = 11.98$, $n = 130$) than nonskeptics ($M = 60.83$, $SD = 12.21$, $n = 190$), $F(1, 318) = 14.573$, $p < .001$. Further analysis found significant differences between skeptics' and nonskeptics' mean message credibility scores within the new media [$F(1, 106) = 5.813$, $p = .018$] and control conditions [$F(1, 106) = 5.588$, $p = .020$], but not the mainstream condition. Although the media skeptics in this study gave significantly lower overall message credibility ratings than nonskeptics, they did not perceive messages from the mainstream source group to be significantly less credible than nonskeptics did. Rather, significant relationships were found in the other two groups. Media skeptics attributed significantly less message credibility to messages from the new media ($M = 55.73$, $SD = 8.72$) and control groups ($M = 51.66$, $SD = 10.22$) than

nonskeptics, who rated the message credibility of tweets from the new media group ($M = 60.98$, $SD = 12.92$) and the control group ($M = 56.91$, $SD = 12.04$) exactly 5.25 points higher on average than skeptics did.

There was also a significant effect of type of news source on message credibility among media skeptics ($M = 55.56$, $SD = 11.98$, $n = 130$), $F(2, 127) = 5.104$, $p = .007$. Post hoc comparisons using the Tukey HSD test indicated that the mean message credibility score for the mainstream condition ($M = 59.87$, $SD = 15.65$) was significantly higher than that of the control condition among media skeptics ($M = 51.66$, $SD = 10.22$), but there were no significant differences between the mean message credibility scores of the mainstream and new media ($M = 55.73$, $SD = 8.722$) conditions or the new media and control conditions among media skeptics, although messages from the mainstream condition were rated the most credible of the three groups by the media skeptics in this study. Table 4.1 further outlines these findings.

Table 4.1

Tukey Results for Overall Message Credibility by Condition Among Media Skeptics

(I) Condition	(J) Condition	Mean difference (I-J)	Std. error	<i>p</i>
Mainstream	New Media	4.139	2.521	.232
	Control	8.209	2.571	.005*
New Media	Control	4.070	2.424	.217

* $p < .01$

Media skepticism and messenger credibility. Similarly, a one-way, between subjects ANOVA compared the effect of media skepticism on messenger credibility in each of the three experimental conditions, showing a significant effect of media skepticism on messenger credibility, $F(1, 318) = 11.729$, $p = .001$). A Tukey HSD test in post hoc indicated that media skeptics reported significantly less overall messenger credibility ($M = 58.09$, $SD = 12.44$, $n =$

130) than nonskeptics ($M = 63.07$, $SD = 12.98$, $n = 190$). Like the message credibility and media skepticism data analysis above, a one-way ANOVA revealed no significant relationship between media skepticism and messenger credibility within the mainstream experimental condition. However, significant relationships were found within the new media [$F(1, 106) = 4.062$, $p = .046$] and control conditions, $F(1, 106) = 5.627$, $p = .019$. Media skeptics attributed significantly less messenger credibility to sources in both the new media group ($M = 57.00$, $SD = 9.34$) and the control group ($M = 51.43$, $SD = 9.92$) than nonskeptics. On average, nonskeptics rated the messenger credibility of tweets from the new media group ($M = 61.18$, $SD = 11.71$), the control group ($M = 56.41$, $SD = 11.22$), and the mainstream media group ($M = 71.24$, $SD = 11.35$) between 4 and 5 points higher than skeptics did.

Among media skeptics, experimental condition was also determined to have a significant relationship with messenger credibility ($M = 58.09$, $SD = 12.44$), $F(2, 127) = 22.064$, $p < .001$. Post hoc Tukey HSD tests revealed that media skeptics rated the messenger credibility of tweets from the mainstream group ($M = 67.18$, $SD = 13.25$) significantly higher than they rated tweets from the new media ($M = 57.00$, $SD = 9.34$) and control groups ($M = 51.43$, $SD = 9.92$), just as they rated the messenger credibility of tweets from the new media group significantly higher than those in the control group. Table 4.2 details these results.

Table 4.2

Tukey Results for Overall Messenger Credibility by Condition Among Media Skeptics

(I) Condition	(J) Condition	Mean difference (I-J)	Std. error	<i>p</i>
Mainstream	New Media	10.184	2.346	.000**
	Control	15.752	2.392	.000**
New Media	Control	5.568	2.255	.039*

* $p < .001$; ** $p < .001$

Echoing the findings of Carr et al. (2014), participants scoring below the median on the media trust scale rated the message and messenger credibility of the three conditions significantly lower than participants who scored above the median on the media trust scale. Furthermore, while media skeptics attributed more message and messenger credibility to tweets from the mainstream media group than the new media group, this relationship was only significant for messenger credibility. However, because the results of RQ1 indicated a significant relationship between media skepticism and message credibility, albeit between the mainstream and control groups, media skepticism was controlled for when analyzing the effects of this study's three experimental conditions on both message and messenger credibility for RQ2 and RQ3.

RQ2: What are the relationships, if any, between perceived **message** credibility and type of news source (i.e. “mainstream” news source or “new media” news source) on Twitter?

Data analysis showed a relationship between those two variables. To test RQ2, this study used a one-way ANOVA to test the between-subject effects of type of news source on message credibility and determined that there was a significant between-subjects effect, $F(2, 317) = 11.924, p < .001$). As displayed in Table 4.3, Tukey HSD post hoc comparisons among groups revealed that the mainstream condition, the new media condition, and the control condition results were significantly different from one another, with the mainstream media messages perceived as more credible than the new media messages and the control group messages, and the new media messages also more credible than the control group messages. Participants who viewed tweets from the mainstream group rated them highest in mean message credibility ($M =$

62.80, $SD = 12.81$). The control group had the lowest ($M = 54.77$, $SD = 11.58$), leaving the new media group's mean message credibility in the middle ($M = 58.65$, $SD = 11.50$).

Table 4.3

Tukey Results for Overall Message Credibility by Condition

(I) Condition	(J) Condition	Mean difference (I-J)	Std. error	<i>p</i>
Mainstream	New Media	4.150	1.644	.032*
	Control	8.030	1.644	.000**
New Media	Control	3.880	1.629	.047*

* $p < .05$; ** $p < .001$

To further test RQ2, this study used ANCOVA (Univariate Analysis of Covariance) to test the between-subject effects of type of news source and media skepticism, as well as other covariates—such as mainstream media favorability, new media favorability, and Twitter favorability and use—on perceived message credibility. Mainstream media favorability, Twitter favorability, and Twitter use had no significant relationship with message credibility. However, new media favorability had a significant relationship with message credibility [$F(1, 189) = 4.924$, $p = .028$] and was controlled for when testing RQ2 using ANCOVA, just as media skepticism was also controlled, $F(1, 189) = 14.743$, $p < .001$. The ANCOVA showed a significant relationship between the mainstream and new media experimental conditions, and perceived message credibility, answering RQ2, $F(1, 189) = 5.494$, $p = .020$. The results are outlined in Table 4.4. Additionally, the data help explain the nature of this relationship: Participants in the new media source condition gave significantly lower message credibility ratings ($M = 58.18$, $SD = 11.73$) than participants in the mainstream source condition ($M = 62.32$, $SD = 12.60$).

Table 4.4*ANCOVA Results for Overall Message Credibility by Covariates and Condition*

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Corrected model	4739.163	6	789.860	6.010	.000**
Media skepticism	1937.527	1	1937.527	14.743	.000**
Mainstream media favorability	23.755	1	23.755	0.181	.671
New media favorability	647.088	1	647.088	4.924	.028*
Twitter use	0.005	1	0.005	0.000	.995
Twitter favorability	17.397	1	17.397	0.132	.716
Mainstream, New Media conditions	721.954	1	721.954	5.494	.020*
Error	24837.587	189	131.416		

Note. $R^2 = .160$, adjusted $R^2 = .134$.

* $p < .05$; ** $p < .001$

These results echo what Liu, Liu, and Li (2012) discussed in their investigation of trustworthiness and retweeting behaviors. The traditional news organizations used in the present study received significantly higher message credibility ratings than the new media news organizations, possibly because the tweets were written in an objective tone and the messengers within the mainstream group were considered to have more expertise than those in the new media group, as Liu, Liu, and Li (2012) suggested.

RQ3: What are the relationships, if any, between perceived **messenger** credibility and type of news source (i.e. “mainstream” news source or “new media” news source) on Twitter?

Data analysis also showed a relationship between these variables. This research question was answered as well. This research question also was tested using a one-way ANOVA to analyze the between-subject effects of type of news source on messenger credibility and found that there was a significant between-subjects effect, $F(2, 317) = 50.760, p < .001$. As Table 4.5

displays, Tukey HSD comparisons showed that the mean messenger credibility scores for the mainstream, new media, and control groups were significantly different from one another. The mainstream media messengers were considered significantly more credible than the new media messengers and the control group messengers, and the new media messengers were considered significantly more credible than the control group messengers. Like the message credibility data revealed, the mainstream condition had the highest mean messenger credibility ($M = 69.76$, $SD = 12.18$), the new media condition had the second-highest mean messenger credibility ($M = 59.32$, $SD = 10.87$), and the control condition had the lowest mean messenger credibility ($M = 54.38$, $SD = 10.94$).

Table 4.5

Tukey Results for Overall Messenger Credibility by Condition

(I) Condition	(J) Condition	Mean difference (I-J)	Std. error	<i>p</i>
Mainstream	New Media	10.436	1.557	.000**
	Control	15.380	1.557	.000**
New Media	Control	4.944	1.542	.004*

* $p < .05$; ** $p < .001$

Further analysis of RQ3 used ANCOVA to test the between-subject effects of type of news source and media skepticism, as well as mainstream media favorability, new media favorability, and Twitter favorability and use, on perceived messenger credibility. As in the analysis of RQ2, mainstream media favorability, Twitter favorability, and Twitter use had no significant relationship with messenger credibility, but new media favorability did, $F(1, 189) = 10.847$, $p = .001$. New media favorability and media skepticism [$F(1, 189) = 8.293$, $p = .004$] were again controlled for using ANCOVA to test RQ3. The results of this analysis revealed a

significant relationship between the mainstream and new media experimental treatments, and perceived messenger credibility, answering RQ3, $F(1, 189) = 44.503, p < .001$. These results are displayed below in Table 4.6. Analyses also found that participants in the new media source condition gave significantly lower messenger credibility ratings ($M = 59.32, SD = 11.22$) than participants in the mainstream source condition ($M = 69.59, SD = 12.17$), suggesting that the mainstream organizations used in this study garnered more messenger credibility as a result of their ethos of authority and long histories with readers (Aristotle, 2013; Roberts, 2010).

Table 4.6

ANCOVA Results for Overall Messenger Credibility by Covariates and Condition

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Corrected model	10029.134	6	1671.522	14.552	.000**
Media skepticism	952.602	1	952.602	8.293	.004*
Mainstream media favorability	182.351	1	182.351	1.588	.209
New media favorability	1245.902	1	1245.902	10.847	.001*
Twitter use	199.751	1	199.751	1.739	.189
Twitter favorability	10.979	1	10.979	0.096	.758
Mainstream, New Media conditions	5111.825	1	5111.825	44.503	.000**
Error	21709.453	189	114.865		

Note. $R^2 = .316$, adjusted $R^2 = .294$.

* $p < .05$; ** $p < .001$

Across the board, tweets from the mainstream media condition were considered to have more message ($M = 62.80, SD = 12.81$) and messenger credibility ($M = 69.76, SD = 12.18$) than those from the new media and control groups, and those relationships were statistically significant ($p < .05$). Therefore, RQ2 and RQ3 showed relationships between the variables. The combined means of each experimental group used in this study are listed in descending order in the index in Table 4.7.

Table 4.7*Index of Mean Message and Messenger Credibility Ratings for News Organizations*

	<i>n</i>	Message		Messenger	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Mainstream Media	104	62.80	12.81	69.76	12.18
<i>New York Times</i>		15.83	5.18	18.34	4.00
<i>USA Today</i>		15.03	4.40	17.16	3.63
<i>Washington Post</i>		16.05	4.24	17.02	3.72
<i>Wall Street Journal</i>		15.89	4.65	17.41	3.68
New Media	108	58.65	11.50	59.32	10.87
Buzzfeed		14.87	4.72	15.34	4.35
Gawker		14.02	4.09	14.34	3.52
Huffington Post		15.71	4.74	16.21	4.69
Vox		14.18	4.03	13.86	3.64
Control	108	54.77	11.58	54.38	10.94
The Info Site		13.19	4.46	12.93	3.71
This Just In		13.29	4.32	12.95	4.14
Today's News		15.39	4.30	14.99	3.90
Up-to-date News		13.19	4.06	13.77	3.38
Total	320	58.69	12.37	61.05	12.98

Note. The range for individual media organizations is 5 to 25. The range for groups of media (mainstream, new, and control) is 25 to 100.

The index in Table 4.7 reveals that every mainstream and new media news organization used in this study scored higher in message and messenger credibility than the invented news organizations in the control group, with the exception of Today's News. Of the eight nonfictional news organizations used in this study, the *Washington Post* had the highest reported message credibility on a scale of 5 to 25 ($M = 16.05$, $SD = 4.23$). Gawker had the lowest mean message credibility, 14.02 ($SD = 4.09$). The *New York Times* had the highest mean messenger credibility on a 5- to 25-range scale ($M = 18.34$, $SD = 4.00$), and Vox had the lowest mean messenger credibility at 13.86 ($SD = 3.64$).

Post Hoc Analysis

In addition to answering the research questions, the data obtained from this survey allows for further research into areas such as ethnicity, political ideology, party affiliation, news consumption, and messenger favorability and familiarity.

Ethnicity. On average, participants who identified as Black or African American in the survey post-test reported higher overall message credibility ($M = 63.35$, $SD = 11.91$, $n = 26$) and messenger credibility ($M = 67.73$, $SD = 12.06$, $n = 26$) than the other five ethnic or racial groups represented in this study ($N = 319$). Those who identified as White reported the second-highest overall perceived message credibility on average ($M = 58.70$, $SD = 12.33$, $n = 267$), while those who identified as American Indian or Alaska Native reported the second-highest overall perceived messenger credibility on average ($M = 64.00$, $SD = 5.29$, $n=3$). Other ethnic groups boasted similarly small sample sizes. Reportedly Asian participants indicated the least overall perceived message credibility on average ($M = 50.33$, $SD = 9.35$, $n = 6$), and participants who identified as Other, specifically mixed race, indicated the least overall perceived messenger credibility on average ($M = 55.00$, $SD = 11.31$, $n = 2$). However, an ANOVA revealed no significant relationships between participant ethnicity and perceived message credibility or messenger credibility among the three experimental conditions used in this study.

Political ideology and party affiliation. As for political ideology, 135 of the 317 survey participants who indicated their political beliefs in the survey posttest identified as moderate (43%), while 118 (37%) identified as conservative or very conservative, and 64 (20%) identified as liberal or very liberal. An ANOVA showed no significant relationships between political

ideology and message or messenger credibility among the study's three experimental conditions or the 12 individual news sources used for the conditions.

Of the 316 participants who provided their political party information, 185 identified as Republican (59%) and 104 identified as Democrat (33%). The remaining 27 identified as a member of the Libertarian Party, Green Party, or other unlisted political party (9%). An analysis revealed no significant relationships between political party affiliation and message or messenger credibility among the study conditions or 11 of the 12 individual news sources, Vox's messenger credibility being the only exception ($M = 13.90$, $SD = 3.64$). Participants who identified as Democrat attributed more messenger credibility to Vox than those who identified as Republican [$F(2, 103) = 4.333$, $p = .016$], although Vox still had the lowest mean messenger credibility out of the mainstream and new media experimental groups ($M = 13.86$, $SD = 3.64$).

News consumption and media use. Survey respondents were also asked about their news consumption habits in the posttest, and post hoc analysis was conducted to examine the results. As Chapter 2 suggested, the majority of the 319 participants who provided news consumption information for this study reported that they most often consume news online ($M = 6.24$, $SD = 1.42$). Of those 319 respondents, 221 indicated that they consume news on the web daily (69%). Social media and social networking sites were the most popular online method of news consumption ($M = 6.32$, $SD = 1.37$), with 72% of all participants reporting that they consume news via social media daily.

The most popular social media platform or social networking site for news consumption was Facebook ($M = 6.16$, $SD = 1.57$), with 67% of question respondents reporting that they consume news via Facebook daily ($N = 318$). However, the photo sharing mobile application Instagram was the next most popular social media platform ($M = 5.67$, $SD = 2.07$) with 198 daily

news consumers (63%, $N = 316$), while Twitter came up close behind in third place ($M = 5.32$, $SD = 2.14$) with 153 daily news consumers (49%, $N = 315$).

Twitter use and favorability. Of the 319 participants who provided their Twitter use information in the survey pretest ($M = 5.34$, $SD = 2.14$), 286 reported that they use Twitter at all (90%), and 160 reported that they use it daily (50%). Twitter was rated favorable or very favorable by 170 of the 319 participants who provided Twitter favorability information (53%) and had a mean favorability score of 3.49 on a scale of 1 to 7 ($SD = 0.92$).

News consumption and favorability. Of 318 participants, BuzzFeed was voted the most frequently read news organization on social media ($M = 4.56$, $SD = 1.64$) and had more than twice the daily news consumers (61) of the second-most popular organization for news consumption on social media, CNN (25), whose mean consumption score was 3.48 on a scale of 1 to 7. Because sample sizes were too small to reveal any valid results, news consumption information for individual news organizations was not tested for significant relationships with message or messenger credibility of individual news organizations in post hoc analysis. However, BuzzFeed and the *New York Times* tied for the most favorable news organizations of the participants who provided organization favorability information in the survey pretest, both with mean favorability scores of 3.81 on a scale of 1 to 5. More participants also reported they had heard of BuzzFeed and the *New York Times* than any other news organization listed in the pretest (93%, $N = 320$).

For BuzzFeed, as well as the *Washington Post*, favorability was also correlated with message and messenger credibility. The reported favorability of the *Washington Post* ($M = 3.58$, $SD = 0.90$) had a statistically significant, positive relationship with its perceived message credibility [$F(4, 98) = 3.498$, $p = .010$] and messenger credibility [$F(4, 98) = 4.542$, $p = .002$],

just as BuzzFeed's perceived favorability ($M = 3.81$, $SD = 1.12$) had a statistically significant, positive relationship with its message credibility [$F(4, 102) = 2.944$, $p = .024$] and messenger credibility, $F(4, 102) = 5.056$, $p = .001$.

Yet, for the *New York Times*, the *Wall Street Journal*, *USA Today*, and Gawker, favorability was only significantly correlated to messenger credibility. For example, participants who gave the *New York Times* higher favorability ratings ($M = 3.81$, $SD = 0.93$) in the survey pretest were more likely to rate the messenger credibility of the *New York Times*' tweets higher than those who found it less favorable [$F(4, 97) = 5.294$, $p = .001$], but this relationship was not significant for message credibility, $F(4, 98) = 1.754$, $p = .144$. Therefore, an individual might believe a well-known news organization's information to be credible on Twitter despite generally disliking the organization, or conversely, might believe an organization on Twitter to be credible because they feel favorable toward the organization. In the cases of The Huffington Post and Vox, however, favorability had no significant relationship with perceived message or messenger credibility.

News organization and genre familiarity. As Chapter 3 previously mentioned, individual news organization familiarity data was recoded during post hoc analysis to create new scales for genre familiarity. The new media familiarity scale and the mainstream media familiarity scale, both of which had a range of 0 to 4, were used to determine whether genre familiarity had any significant effects on message credibility or messenger credibility within the mainstream and new media conditions. The results of a one-way ANOVA revealed no significant relationships between mainstream media familiarity and mainstream message credibility or messenger credibility. Likewise, another one-way ANOVA showed no significant relationships between new media familiarity and new media message credibility or messenger credibility.

Participants who were familiar with either mainstream or new media news organizations were not significantly more or less likely to attribute more message or messenger credibility to those kinds of news organizations, despite earlier findings from Flanagin and Metzger (2007) on genre familiarity and credibility.

CHAPTER 5

DISCUSSION

As more media outlets enter the news arena and traditional news organizations receive increasingly more scrutiny from audiences, as well as competing media, credibility ratings for mainstream news organizations such as the *New York Times* and the *Washington Post* are steadily falling (Pew Research Center, 2012; Shirky, 2013). Social media has become the dominant medium for news consumption (Pew Research Center, 2015a), and new media news organizations are taking note and crafting content specifically for social networking sites and microblogs, such as Facebook and Twitter (Burton, 2013; Ellis, 2014). Twitter, in particular, has a growing constituency of users who use the platform to read and share news (Ivancin et al., 2015), prompting a need for more research concerning perceived credibility and various kinds of news outlets on Twitter.

Little academic literature suggests that audiences find new media messengers or messages more credible than mainstream messengers or messages on Twitter. However, the effects of different types of news organizations on credibility are of great importance to communication research, as well as professional news outlets that desire to reach and maintain audiences on social media. Therefore, the current study addressed these questions in hopes of determining whether there were any significant relationships among message credibility and messenger credibility, and new media and mainstream news organizations, on Twitter. This study further analyzed these relationships by investigating the roles of political cynicism, media skepticism, favorability, familiarity, political ideology, ethnicity, and news consumption.

Chapter 5 contains a summary of this study's findings and a discussion of how to contextualize these findings within a communication research framework, as well as a professional journalism framework. The limitations of this study and recommendations for future research are also addressed in this chapter.

Research Findings

The present study investigated the topic using three research questions, which were answered.

RQ1. The first research question asked what are the relationships, if any, among 1) political cynicism and media skepticism, 2) messenger credibility and message credibility, and 3) new media news sources and mainstream news sources on Twitter. Message and messenger credibility of new media and mainstream news organizations on Twitter were affected by media skepticism. Media skeptics attributed less message and messenger credibility to mainstream news organizations than nonskeptics did, although political cynicism showed no such effects.

Participants were asked questions indicating their levels of political cynicism and media skepticism in the survey pretest. Those who scored below the median on the political cynicism and media skepticism scales were considered political cynics and media skeptics, respectively. While data analysis revealed no significant relationships between political cynicism and message or messenger credibility, analysis showed that higher levels of media skepticism were related to lower levels of perceived message and messenger credibility on Twitter. This variable must be controlled for when testing the effects of news organization type on the message and messenger credibility of a tweet.

Carr et al. (2014) also reported significant media skepticism effects, which examined the relationship between media skepticism and the perceived credibility of a video news segment. However, while Carr et al. (2014) discovered that media skeptics found professional news to be significantly less credible than nonskeptics did, the results of the present study did not show similar findings. This study revealed that media skeptics did not find mainstream media to be significantly less credible than nonskeptics, and that media skeptics did not believe mainstream media to be significantly less credible than new media, even though media skepticism was defined by a lack of trust in mainstream media. Instead, further analysis of this study's data showed that media skeptics found new media messengers and their messages significantly less credible than nonskeptics did and that media skeptics attributed significantly more messenger credibility to mainstream media than new media. Therefore, although media skeptics found mainstream media less credible than nonskeptics, the effect was not significant, and media skeptics still believed mainstream media significantly more credible than new media.

These results surprised the author of the current study and seem to suggest that traditional news organizations still have a substantial amount of credibility when compared to new media news organizations, even within groups inherently suspicious of mainstream media. A general skepticism of mainstream media does not mean that skeptics find new media a more credible alternative. Additionally, a majority of this study's participants were students from the College of Communication and Information Sciences, which could have affected credibility ratings for new media organizations. Students majoring in journalism or similar fields might have been more likely to distrust new media because they were more familiar with the traditional news outlets featured in their classes, regardless of whether they believed themselves to be generally skeptical of mainstream media as a whole. Despite the deliberate choice to omit the words

“credible” and “credibility” from the survey, participants also may have recognized the aim of this study and responded with answers they believed the researchers wanted, as the Hawthorne Effect suggests (McCambridge, Witton, & Elbourne, 2014).

Another explanation for these results might be that study participants overestimated their own media skepticism in the survey pretest. As Davidson explained (1983), the Third Person Effect is the tendency of people to believe others more susceptible to the influence of mass media than themselves. Although millennials often report that they generally distrust the media (Harvard Public Opinion Project, 2016), research has shown that these self-perceptions tend to be inflated and that millennials actually exhibit a lack of media literacy (Lee, 2016; Couldry & Markham, 2007).

Results from the current study revealed that significant media skepticism effects exist on Twitter such that media skepticism decreases the perceived credibility of new media messengers and their messages. However, similar significant relationships were not present for political cynicism. The small effects of political cynicism on message and messenger credibility were expected, considering political cynicism is more associated with message than messenger credibility. Additionally, the messages used for the tweets in the survey were chosen because they were not necessarily political in nature, allowing the study to focus more on messenger credibility than message credibility.

RQ2. The second research question asked whether a significant relationship would be found between type of news source (mainstream vs. new media) and message credibility. The results of this study revealed that the nature of this relationship is such that participants found messages from mainstream news organizations significantly more credible than messages from

new media news organizations, and both more credible than messages attributed to news sources created for this research.

RQ3. The third research question asked whether a significant relationship would be found between type of news source (mainstream vs. new media) and messenger credibility. Results from this study showed that participants found mainstream news organizations to be more credible messengers than new media news organizations, and both more credible than messages attributed to news sources created for this research.

Credibility

Considering the literature discussed in Chapter 2, it stands to reason that traditional media's ethos of authority, as exemplified by their values of expertise and objectivity, affects credibility as much as the receiver characteristics of an individual allow it to (Burton, 2013; Delia, 1979; Gunther, 1992; Roberts, 2010; Self, 1996; Tinkham & Weaver-Lariscy, 1994). For example, the relationships found between type of news organization and message and messenger credibility were moderated by two receiver characteristics, media skepticism and favorability toward new media. However, other receiver characteristics (such as message familiarity, motivation, involvement, and prominence) can still be used to more fully understand how other characteristics (such as authority, expertise, and objectivity) relate to the results of this study.

Messenger credibility. While cognitive authority, messenger credibility, and favorability are generally more associated with informal, personal sources of information (Olaisen, 1990), individuals who are unfamiliar with a message and, therefore, need a source with expertise or competence, are likely to attribute more cognitive authority or messenger credibility to formal, impersonal sources who they believe have more expertise. Participants in the current study were

unfamiliar with the messages to which they were exposed in the survey because they were crafted by this study's authors from hoax news websites. This could explain why these participants found both BuzzFeed and the *New York Times* most favorable, reported that they consumed news on social media most often from BuzzFeed, but found the *New York Times* to have the most messenger credibility of all the news organizations used in the experimental treatments.

As stated previously, BuzzFeed recognizes the importance of social media to news consumption and creates fun, interactive content specifically for social networking sites and microblogs (Burton, 2013; Ellis, 2014). However, even on Twitter, BuzzFeed's credibility as a messenger still pales in comparison to many traditional news organizations, as revealed by this study, the *Columbia Journalism Review*, and the Pew Research Center (Funt, Gourarie, & Murtha, 2016; Mitchell, Gottfried, & Matsa, 2015). Although 26 years old, Olaisen's research (1990) lends itself to this modern framework. His findings seem to suggest that the *New York Times* still came out on top in terms of messenger credibility in the current study because participants considered the news organization's expertise of greater importance to cognitive authority in light of their lack of familiarity with the messages to which they were exposed.

Message credibility. Additionally, because participants were unfamiliar with the messages used in the tweets and were not asked to search for any specific information within the survey, such as names, timestamps, links, or factual or aesthetic errors, previous research findings suggest that any possible effects of related receiver characteristics—specifically, message familiarity, motivation, involvement, and prominence—were minimized. The structure of the survey also may have encouraged participants to process the messages used in the study by way of the peripheral route to persuasion, as the higher, cognitive route was largely inaccessible

due to the lack of information available to participants (Fogg, 2003; Hovland & Weiss, 1951; Liu, Liu, & Li, 2012; Petty, Brinol, & Priester, 2009; Priester et al., 1999).

Liu, Liu, and Li's findings (2012) suggest that the significantly higher message credibility ratings of the mainstream group found in the current study might have occurred because participants did process the information via the peripheral route, which allowed heuristic cues such as source expertise to have more of an effect on authority, messenger credibility, and the persuasiveness of the message (Olaisen, 1990). In other words, the specific instructions given in the survey and the limited information presented in the tweets did little to allow participants the option of processing the stimuli via the cognitive route to persuasion, resulting in greater positive effects of source expertise on perceived credibility.

Agenda Setting and Gatekeeping

The results of this study can also be understood in the context of gatekeeping and agenda setting, two roles traditionally held by mainstream media. Although some researchers believe mainstream news organizations are losing their gatekeeping and agenda-setting powers to new media news organizations and citizen journalists (Meraz, 2009), this study, as well as previous research on this topic, suggest that mainstream media still retains much of its gatekeeping and agenda setting role on Twitter. New research shows mainstream organizations are still considered to have significantly more message and messenger credibility than new media organizations on the platform (Kwak et al., 2010; Malik & Pfeffer, 2016).

Twitter itself does not appear to serve primarily as a gatekeeper of information when compared to Facebook (Johnson & Kaye, 2015; Rutenberg, 2016), which recently changed its news feed algorithms to focus on friends and family (Isaac & Ember, 2016). This decision may

be related to controversy that arose surrounding Facebook's alleged tampering with trending topics lists to suppress conservative news content (Nunez, 2016; Rutenberg, 2016). While Facebook seems to be in the gatekeeping business as it decides what news users see in their news feeds, as of this writing, Twitter does not. A Twitter user may see an array of posts popular with the accounts they follow or be notified of a trending hashtag within their social network, but it does not appear that the algorithms that decide a user's Twitter feed are subject to the whims or biases of Twitter employees, although Twitter has been known to suspend accounts used to spam or harass other users (Twitter, 2016a; Isaac, 2016). Compared to Facebook, Twitter seems more content-neutral because users ultimately choose which accounts or topics they want to follow.

As a crowd-sourced medium, Twitter is often considered less credible than other methods of communication delivery, and mainstream news outlets may lose some of their credibility on Twitter, especially when compared to the credibility they garner on their own websites (Gupta & Kumaraguru, 2012; Schmierbach & Oeldorf-Hirsch, 2012). However, research has shown that high-credibility messengers, such as the *New York Times*, can increase the perceived credibility of an average- or low-credibility medium (Kang, Bae, Zhang, & Sundar, 2011), suggesting the possibility of a mutually beneficial relationship between Twitter and traditional news organizations who wish to hold on to their agenda-setting or gatekeeping power on social media. Twitter's value to these organizations is unmistakable considering 86 percent of Twitter users turn to the platform for news (Ivancin et al., 2015).

As Kwak et al. (2010) and Malik and Pfeffer (2016) suggested, Twitter still seems to maintain, as well as increase, the agenda-setting power of mainstream media through its retweet function. Generally, Twitter users see the news shared by the users they follow. While each user decides what is worthy of retweeting, most of the information shared via retweets originates

from mainstream news, and this information tends to spread across the platform quickly (Kwak et al., 2010; Malik and Pfeffer, 2016). In this narrow sense, mainstream organizations remain the original gatekeepers of the most popular news on Twitter, but that role is now shared with each individual Twitter user who can choose whether to propagate that news.

If Liu, Liu, and Li's findings (2012) were correct and content objectivity increases the positive effects of source expertise on retweeting behavior, then mainstream media's authority to set the public agenda on Twitter can be best maintained by using their expertise to provide consumers with unfamiliar, objective content, just as the current study has done. This avenue is ripe for further research, as it appears that traditional news organizations' ethos of authority can bolster their credibility and agenda-setting power on Twitter if they continue to publish new information in an impartial manner.

Favorability and Familiarity

Genre familiarity had no significant effect on message or messenger credibility on Twitter, although participants judged tweets from the mainstream source group to be significantly more credible than those from the new media group. This result might have stemmed from participants' general familiarity with all the news organizations listed in the study, regardless of source group. Mainstream media favorability also had no significant effect on message or messenger credibility on Twitter, possibly because of favorability's closer association with what Meyer (1988) called "community affiliation" (p. 567) than credibility. An individual can dislike a news organization on the grounds that it fails to unite or provide adequate leadership for a community, and still think it or its messages credible (Meyer, 1988; Roberts, 2010). While participants may have found mainstream news organizations unfavorable

in light of some perceived negativity or controversy in news coverage, they still put more trust in those organizations and their content than new media news outlets and messages, likely because of traditional media's reputation of authority, expertise, and professionalism.

On the other hand, new media favorability was revealed to significantly affect message and messenger credibility on Twitter. This finding could be explained by the tendency of new media outlets, such as BuzzFeed and the Huffington Post, to avoid negative or controversial content that might weaken the effects of favorability or community affiliation on credibility (Meyer, 1988; Austin & Dong, 1994). Without the authority necessary to project a strong sense of journalistic expertise, new media organizations must rely on their perceived favorability to maintain credibility on Twitter, as a sort of auxiliary heuristic cue.

Future of Mainstream Media and New Media

As long as traditional news organizations continue creating newsworthy content for multiple platforms and propagate that content on social media, and as long as new media news organizations continue aggregating content from mainstream media and remain focused on web delivery, results from this study suggest that traditional news organizations will continue to maintain their gatekeeping and agenda-setting roles on Twitter and social media, although those roles may shrink over time as news outlets grow less scarce. Mainstream media's ethos of authority, expertise, and objectivity should still have substantial effects on message and messenger credibility on Twitter.

While the possibility of perpetual information overload might concern many traditional news outlets, it could stand to reason that an abundance of information might overwhelm audiences. As this happens, media consumers will continue to depend on heuristic cues, such as

expertise and content objectivity, to determine credibility on Twitter. To this extent, less scarcity might actually benefit mainstream news providers by encouraging news consumers to process information via the peripheral route to persuasion, rather than the central route. This could be an interesting direction for further research on this topic. Kang et al. (2011) found that individuals who process messages using the central route are more cognitively involved with those messages and tend to critically judge all available source cues, while less cognitively involved individuals do not. Their study suggested that individuals generally do not attribute the same cognitive weight to all heuristic cues when evaluating information on the web in order to cope with information overload.

To summarize, browsing Twitter and the limited information included in one's news feed is usually a passive activity. This study also attempted to limit participants' cognitive involvement with the stimuli, which ideally encouraged users to process that information via the peripheral route to persuasion and to use heuristic cues, such as source expertise, to evaluate credibility. As the results of this study revealed, the perceived favorability of mainstream news organizations had little bearing on participants' perceptions of credibility, suggesting that "liking" a mainstream source is relatively unimportant to credibility when that source is considered to have substantial expertise. It appears that this heuristic cue was so influential on participants' perceptions of messenger credibility that its presence was enough to garner significantly more credibility for those "expert" news organizations than new media organizations among media skeptics, as well as nonskeptics. If users are relying on an expertise heuristic to evaluate credibility on Twitter, it seems they will probably find traditional news outlets more credible than new media news outlets because of the perceived expertise of traditional outlets, regardless of users' media skepticism.

However, because new media news organizations do not project the same level of expertise, users cannot depend on that expertise heuristic to evaluate credibility. Therefore, it is more important to the credibility of new media outlets that users “like” those outlets. As this study revealed, the perceived favorability of new media outlets significantly affected their perceived message and messenger credibility on Twitter, but if users are relying on favorability as a stand-in heuristic cue, it appears that its influence pales in comparison to that of an expertise heuristic. Participants still believed mainstream media organizations to have significantly more message and messenger credibility than new media organizations, and they did not seem to be fooled by the news organizations invented for this study. Even to participants inherently skeptical of the mainstream media, new media news outlets were still considered significantly less credible than traditional news outlets.

With regard to media skepticism, it is also important to note that a receiver’s skeptical predisposition does not necessarily mean that individual will avoid mainstream messengers. Tsfaty and Cappella (2005) investigated why news skeptics get news from sources they do not find credible and discovered that receivers’ need for cognition has a moderating effect on the relationship between news exposure to mainstream television and newspaper sources and source trustworthiness. Their results showed that exposure is relatively unaffected by trust in those with a greater need for cognition—the need to think, understand, and make sense of the world. Individuals with an extremely high need for cognition actually consumed more mainstream news as their skepticism increased. The authors suggested that news skeptics may consume news by sources they do not trust simply to critique it, or because those sources provide the news they need to learn about current events and opposing political views (Tsfaty & Cappella, 2005).

Because a large part of this thesis focused on the effects of one's personal or political predisposition and perceived credibility, specifically media skepticism because of its relationship to messenger credibility, need for cognition was not controlled for in this study due to its primary function as a moderator of news exposure. However, this poses another interesting possibility for further research relating to media skepticism on Twitter. While Twitter users might say they're skeptical of the mainstream media, this study found that they still believe mainstream news organizations are more credible than new media organizations on Twitter. Moreover, Tsfaty and Cappella's research (2005) suggests that they will still read news from mainstream organizations if they have a high need for cognition.

Additionally, although Tsfaty and Cappella focused on mainstream media skepticism and consumption (2005), their findings might be good news for new media organizations who generally lack the perceived credibility of their mainstream competitors but still rely on engagement from news consumers to pay for more serious, investigative journalism that might garner more credibility in the future. Even if users do not find new media outlets the most credible on Twitter, as the present study found, they may still consume news from those outlets if they have a high need for cognition.

Limitations

Despite the statistically significant results of this study, the overall mean credibility scores reported by the participants were not especially high. Of the three experimental conditions, only the mainstream media group received a mean credibility score above the scale midpoint (62.5), and even it failed to meet this mark by more than 8 points. These results could stem from Twitter's lack of credibility as a medium, as previous literature has suggested

(Schmierbach, & Oeldorf-Hirsch, 2012), or from an overall decline in media credibility perceptions among young adults, as the Harvard Public Opinion Project (2016) and the Pew Research Center recently reported (Fingerhut, 2016).

While the Harvard Public Opinion Project (2016) and the Pew Research Center (Fingerhut, 2016) measured credibility differently, their research indicates that millennials have been losing confidence in the news media as an institution for years, although their findings suggest different rates for this decline in trust. This poses an opportunity for further research on this topic as it relates to Twitter and news credibility. By replicating this study and acquiring data from a similar demographic over an extended period of time, future researchers might discover results similar to those of the Harvard Public Opinion Project (2016) and the Pew Research Center (Fingerhut, 2016), suggesting that social media platforms such as Twitter are not immune to millennials' overall decreasing trust in the media.

Other avenues for future research on this subject could lie in more general populations of interest. Whether the results of this study are similar to results concerning different age or education demographics has yet to be seen, and it might benefit communication researchers, as well as media groups, to compare those results. Further research might also consider including news organizations other than those used in this study to test the effects of source type on perceived message and messenger credibility. As both new media and mainstream news outlets continue to develop and disappear in an ever-changing market, the attitudes toward those outlets change as well. Organizations that prove to be appropriate sources for study today might not be as useful tomorrow.

It might also be beneficial for future researchers to analyze the effects of possible confounding variables, rather than controlling for them as this study did. For example, social

endorsements, such as one's Klout score, number of followers, number of retweets, or number of favorites, could affect the perceived message and messenger credibility of new media and mainstream news organizations differently. The same could be true for the presence of a timestamp or verified badge. Further study could incorporate these details in a larger-scale investigation of news media credibility on Twitter.

As previously mentioned, it is also possible that this study's participants overestimated their perceived media skepticism, which could be corrected in future research by testing participants' satisfaction with information from various trustworthy and untrustworthy sources in the survey posttest (Lee, 2016). Although, increasing the length of the survey might cause instrument decay.

It was not possible to completely control how participants processed the information, whether via the central or peripheral route, which can affect how individuals evaluate the persuasiveness of a tweet (Liu, Liu, & Li, 2012). However, the structure of the survey and lack of information available in the stimuli attempted to limit participants to the peripheral route in order to focus on the effects of heuristic cues, such as source and expertise. It was also impossible to ensure that participants read the questions or tweets in their entirety before moving on. Additionally, the results of this study may not be generalizable to different populations because they are largely based on responses from students at the University of Alabama enrolled in at least one course in the College of Communication and Information Sciences.

REFERENCES

- Al-Khalifa, H. S., & Al-Eidan, R. M. (2011). An experimental system for measuring the credibility of news content in Twitter. *International Journal of Web Information Systems*, 7(2), 130-151.
- Antheunis, M. L., Schouten, A. P., Valkenburg, P. M., & Peter, J. (2012). Interactive uncertainty reduction strategies and verbal affection in computer-mediated communication. *Communication Research*, 39(6), 757-780.
- Appelman, A., & Sundar, S. S. (2015). Measuring Message Credibility Construction and Validation of an Exclusive Scale. *Journalism & Mass Communication Quarterly*, 1077699015606057.
- Aristotle. (2013). *Rhetoric* (pp. 1-142). Retrieved from https://books.google.com/books?id=gePsAgAAQBAJ&printsec=frontcover&source=gbs_atb - v=onepage&q&f=false
- Austin, E. W., & Dong, Q. (1994). Source v. content effects on judgments of news believability. *Journalism Quarterly*, 71(4), 973-983.
- Bell, E. (2015). The rise of mobile and social news – and what it means for journalism. In N. Newman, D. A. L. Levy, & R. K. Nielson (Eds.), *Reuters Institute Digital News Report 2015* (pp. 88-90). Oxford: Reuters Institute for the Study of Journalism.
- Burton, T. (2013) *The buzz on BuzzFeed: Can readers learn the news from lists?* (Master's thesis). Tuscaloosa, AL: University of Alabama. Retrieved from http://acumen.lib.ua.edu/content/u0015/0000001/0001663/u0015_0000001_0001663.pdf
- Camera, L. (2015, October 27). 2014 graduates had highest student loan debt ever. *U.S. News and World Report*. Retrieved from <http://www.usnews.com/news/blogs/data-mine/2015/10/27/2014-graduates-had-highest-student-loan-debt-ever>
- Carr, D. (2014, January 26). Ezra Klein is joining Vox Media as web journalism asserts itself. *New York Times*. Retrieved from http://www.nytimes.com/2014/01/27/business/media/ezra-klein-joining-vox-media-as-web-journalism-asserts-itself.html?_r=0
- Carr, D., Barnidge, M., Byung Gu, L., & Tsang, S. (2014). Cynics and skeptics: Evaluating the credibility of mainstream and citizen journalism. *Journalism & Mass Communication Quarterly*, 91(3), 452-470.

- Castillo, C., Mendoza, M., & Poblete, B. (2011, March). *Information credibility on Twitter*. Paper presented at the 20th International World Wide Web Conference, Hyderabad, India.
- Couldry, N., & Markham, T. (2007). Youthful steps toward civic participation: Does the Internet help? In B. D. Loader (Ed.), *Young citizens in the digital age: Political engagement, young people and new media* (pp. 21-34). London, UK: Routledge.
- Crouton-Skitch, A. (2015, January 29). IRS will automatically deduct student loan payments starting September 2015. *National Review*. Retrieved from <http://nationalreport.net/irs-will-automatically-deduct-student-loan-payments/>
- Daily Currant (2014, September 4). College offering course on selfies. *Daily Currant*. Retrieved from <http://dailycurrant.com/2014/09/04/college-offering-course-on-selfies/>
- Das, R., & Pavličková, T. (2014). Is there an author behind this text? A literary aesthetic driven approach to interactive media. *New Media & Society, 16*(3), 381-397.
- Deuze, M. (2005). What is journalism? Professional identity and ideology of journalists reconsidered. *Journalism, 6*(4), 442-464.
- Duggan, M. (2015, August 19). *Mobile messaging and social media — 2015*. Washington, D.C.: Pew Research Center. Retrieved from <http://www.pewinternet.org/files/2015/08/Social-Media-Update-2015-FINAL2.pdf>
- Edwards, C., Spence, P. R., Gentile, C. J., Edwards, A., & Edwards, A. (2013). How much Klout do you have... A test of system generated cues on source credibility. *Computers in Human Behavior, 29*(5), A12-A16.
- Ellis, J. (2014, August 14). Buzzfeed. In Nieman Journalism Lab online encyclopedia. Retrieved from <http://www.niemanlab.org/encyclo/buzzfeed/?=fromembed>
- Ellison, N. B., & Boyd, D. M. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13*(1), 210-230.
- Ember, S. (2016, June 10). Gawker, filing for bankruptcy after Hulk Hogan suit, is for sale. *New York Times*. Retrieved from <http://www.nytimes.com/2016/06/11/business/media/gawker-bankruptcy-sale.html>
- Fingerhut, H. (2016, January 4). *Millennials' views of news media, religious organizations grow more negative*. Pew Research Center. Retrieved from <http://www.pewresearch.org/fact-tank/2016/01/04/millennials-views-of-news-media-religious-organizations-grow-more-negative/>
- Flanagan, B. (2015, May 12). Alabama postal worker fathered 56 illegitimate children. *World News Daily Report*. Retrieved from <http://worldnewsdailyreport.com/alabama-postal-worker-fathered-56-illegitimate-children/>

- Flanagin, A. J., & Metzger, M. J. (2000). Perceptions of Internet information credibility. *Journalism & Mass Communication Quarterly*, 77(3), 515-540.
- Flanagin, A. J., & Metzger, M. J. (2007). The role of site features, user attributes, and information verification behaviors on the perceived credibility of web-based information. *New Media & Society*, 9(2), 319-342.
- Fogg, B. J. (2003, April). Prominence-interpretation theory: Explaining how people assess credibility online. In *CHI'03 extended abstracts on human factors in computing systems* (pp. 722-723). ACM.
- Funt, D., Gourarie, C., & Murtha, J. (2016, June 27). *The New Yorker*, BuzzFeed, and the push for digital credibility. *Columbia Journalism Review*. Retrieved from http://www.cjr.org/special_report/newyorker_buzzfeed_trust.php
- Gottfried, J., & Shearer, E. (2016, May 26). *News use across social media platforms 2016*. Washington, D.C.: Pew Research Center. Retrieved from http://www.journalism.org/files/2016/05/PJ_2016.05.26_social-media-and-news_FINAL.pdf
- Grinev, M., Grineva, M., Boldakov, A., Novak, L., Syssoev, A., & Lizorkin, D. (2009, July). Sifting micro-blogging stream for events of user interest. In *Proceedings of the 32nd international ACM SIGIR conference on Research and development in information retrieval* (pp. 837-837). ACM.
- Gunther, A. C. (1992). Biased press or biased public? Attitudes toward media coverage of social groups. *Public Opinion Quarterly*, 56(2), 147-167.
- Gupta, A., & Kumaraguru, P. (2012, April). Credibility ranking of tweets during high impact events. In *Proceedings of the 1st Workshop on Privacy and Security in Online Social Media* (p. 2). ACM.
- Hampton, K., Goulet, L. S., Rainie, L., & Purcell K. (2011, June 16). *Social networking sites and our lives*. Washington, D.C.: Pew Research Center. Retrieved from <http://www.pewinternet.org/2011/06/16/social-networking-sites-and-our-lives/>
- Hanusch, F., & Bruns, A. (2016). Journalistic Branding on Twitter: A representative study of Australian journalists' profile descriptions. *Digital Journalism*, 1-18. doi: 10.1080/21670811.2016.1152161
- Harvard Public Opinion Project. (2016). *Survey of Young Americans' Attitudes Toward Politics and Public Service Executive Summary*. Retrieved from Harvard University Institute of Politics website: http://iop.harvard.edu/sites/default/files/content/160425_Harvard%20IOP%20Spring%20Report_update.pdf

- Hayes, A. S., Singer, J. B., & Ceppos, J. (2007). Shifting roles, enduring values: The credible journalist in a digital age. *Journal of Mass Media Ethics*, 22(4), 262-279.
- Hovland, C. I., & Weiss, W. (1951). The influence of source credibility on communication effectiveness. *Public Opinion Quarterly*, 15(4), 635-650.
- Isaac, M. (2016, May 24). Twitter to ease character limit, making room for GIFs, videos and more. *New York Times*. Retrieved from http://www.nytimes.com/2016/05/25/technology/twitter-to-ease-character-limit-making-room-for-gifs-videos-and-more.html?_r=0
- Isaac, M. (2016, July 20). Twitter bars Milo Yiannopoulos in wake of Leslie Jones's reports of abuse. *New York Times*. Retrieved from http://www.nytimes.com/2016/07/20/technology/twitter-bars-milo-yiannopoulos-in-crackdown-on-abusive-comments.html?_r=0
- Isaac, M., & Ember, S. (2016, June 29). Facebook to change news feed to focus on friends and family. *New York Times*. Retrieved from http://www.nytimes.com/2016/06/30/technology/facebook-to-change-news-feed-to-focus-on-friends-and-family.html?_r=0
- Ivancin, M., Kjarval, N., Loker, K., Rosenstiel, T., & Sonderman, J. (2015, September 1). Twitter and the news: How people use the social network to learn about the world. Retrieved from American Press Institute web site <http://www.americanpressinstitute.org/publications/reports/survey-research/how-people-use-twitter-news/>
- Java, A., Song, X., Finin, T., & Tseng, B. (2007, August). Why we Twitter: Understanding microblogging usage and communities. In *Proceedings of the 9th WebKDD and 1st SNA-KDD 2007 workshop on Web mining and social network analysis* (pp. 56-65). ACM.
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York, NY: NYU Press.
- Johnson, T. J., & Kaye, B. K. (1998). Cruising is believing?: Comparing Internet and traditional sources on media credibility measures. *Journalism & Mass Communication Quarterly*, 75(2), 325-340.
- Johnson, T. J., & Kaye, B. K. (2000). Using is believing: The influence of reliance on the credibility of online political information among politically interested Internet users. *Journalism & Mass Communication Quarterly*, 77(4), 865-879.
- Johnson, T. J., & Kaye, B. K. (2004). Wag the blog: How reliance on traditional media and the Internet influence credibility perceptions of weblogs among blog users. *Journalism and Mass Communication Quarterly*, 81(3), 622-642.

- Johnson, T., & Kaye, B. (2010). Choosing is believing? How Web gratifications and reliance affect Internet credibility among politically interested users. *Atlantic Journal of Communication*, 18(1), 1-21.
- Johnson, T. J., & Kaye, B. K. (2015). Reasons to believe: Influence of credibility on motivations for using social networks. *Computers in Human Behavior*, 50, 544-555.
- Kang, H., Bae, K., Zhang, S., & Sundar, S. S. (2011). Source cues in online news: Is the proximate source more powerful than distal sources?. *Journalism & Mass Communication Quarterly*, 88(4), 719-736.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.
- Karlsson, M. (2011). The immediacy of online news, the visibility of journalistic processes and a restructuring of journalistic authority. *Journalism*, 12(3), 279-295.
- Karlsson, M., Clerwall, C., & Nord, L. (2014). You ain't seen nothing yet: Transparency's (lack of) effect on source and message credibility. *Journalism Studies*, 15(5), 668-678.
- Kassoway, A. (2014). Social influence: Marketing's new frontier (White paper). New York, NY: CrowdTap. Retrieved from http://www.gdsinternational.com/events/wp-content/uploads/sites/1/2015/09/Social_Influence_Research_Paper.pdf
- Kiousis, S. (2001). Public trust or mistrust? Perceptions of media credibility in the information age. *Mass Communication & Society*, 4(4), 381-403.
- Kiousis, S. (2003). Equal trust: an experiment exploring the impact of interactivity and sources on individuals' perceptions of credibility for online news stories. In *annual meeting of the International Communication Association, Marriott Hotel, San Diego, CA*.
- Kovach, B., & Rosenstiel, T. (2007). *The elements of journalism: What newspeople should know and the public should expect*. New York, NY: Three Rivers Press.
- Kurtz, H. (2007, July 9). A blog that made it big. *Washington Post*. Retrieved from <http://www.washingtonpost.com/wp-dyn/content/article/2007/07/08/AR2007070801213.html>
- Kusisto, L. (2015, November 23). More young adults live with their parents now than during the recession. *Wall Street Journal*. Retrieved from <http://blogs.wsj.com/economics/2015/11/23/more-young-adults-live-with-their-parents-now-than-during-the-recession/>
- Kwak, H., Lee, C., Park, H., & Moon, S. (2010, April). What is Twitter, a social network or a news media?. In *Proceedings of the 19th international conference on World wide web* (pp. 591-600). ACM.

- Lasorsa, D. L., Lewis, S. C., & Holton, A. E. (2012). Normalizing Twitter: Journalism practice in an emerging communication space. *Journalism Studies*, 13(1), 19-36.
- Lee, O. K. (2016). *Millennial skepticism and susceptibility to media persuasion*. (Honors thesis), University of Tennessee at Chattanooga. Retrieved from <http://scholar.utc.edu/cgi/viewcontent.cgi?article=1062&context=honors-theses>
- Liebes, T. (2000). Inside a news item: A dispute over framing. *Political Communication*, 17(3), 295-305.
- Liu, Z., Liu, L., & Li, H. (2012). Determinants of information retweeting in microblogging. *Internet Research*, 22(4), 443-466.
- Lowrey, W. (2011). Institutionalism, news organizations and innovation. *Journalism Studies*, 12(1), 64-79.
- Mahler, J. (2015, June 12). Gawker's moment of truth. *New York Times*. Retrieved from http://www.nytimes.com/2015/06/14/business/media/gawker-nick-denton-moment-of-truth.html?_r=0
- Malik, M. M., & Pfeffer, J. (2016). A macroscopic analysis of news content in Twitter. *Digital Journalism*, 1-25. doi: 10.1080/21670811.2015.1133249
- Manovich, L. (2003). Introduction. In N. Wardrip-Fruin & N. Montfort (Eds.), *The new media reader* (pp. 1-27). Cambridge, MA: MIT Press.
- McCambridge, J., Witton, J., & Elbourne, D. R. (2014). Systematic review of the Hawthorne Effect: New concepts are needed to study research participation effects. *Journal of clinical epidemiology*, 67(3), 267-277.
- Media Insight Project. (2014, March 17). *The personal news cycle: How Americans choose to get their news*. Chicago, IL: The Associated Press-NORC Center for Public Affairs Research. Retrieved from American Press Institute web site: <http://www.americanpressinstitute.org/publications/reports/survey-research/personal-news-cycle/single-page/#section-5-social-and-demographic-differences-in-habits-and-attitudes>
- Media Insight Project. (2015, March 16). *How Millennials get news: Inside the habits of America's first digital generation*. Chicago, IL: The Associated Press-NORC Center for Public Affairs Research. Retrieved from American Press Institute web site: <http://www.americanpressinstitute.org/publications/reports/survey-research/millennials-news/>
- Melican, D. B., & Dixon, T. L. (2008). News on the net: Credibility, selective exposure, and racial prejudice. *Communication Research*, 35(2), 151-168.

- 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.
- Messing, S., & Westwood, S. J. (2012). Selective exposure in the age of social media: Endorsements trump partisan source affiliation when selecting news online. *Communication Research*, 0093650212466406.
- Meyer, P. (1988). Defining and measuring credibility of newspapers: Developing an index. *Journalism Quarterly*, 65(3), 567-588.
- Mitchell, A., Gottfried, J., & Matsa, K. A. (2015, June 1). *Millennials and political news: Social media – the local TV for the next generation?*. Pew Research Center. Retrieved from <http://www.journalism.org/files/2015/06/Millennials-and-News-FINAL-7-27-15.pdf>
- Mitchelstein, E., & Boczkowski, P. J. (2010). Online news consumption research: An assessment of past work and an agenda for the future. *New Media & Society*.
- Morris, M. R., Counts, S., Roseway, A., Hoff, A., & Schwarz, J. (2012, February). Tweeting is believing?: understanding microblog credibility perceptions. In *Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work* (pp. 441-450). ACM.
- New York Times (2004, September). *Ethical journalism: A handbook of values and practices for the news and editorial departments*. Retrieved from http://www.nytc.com/wp-content/uploads/NYT_Ethical_Journalism_0904-1.pdf
- Newman, N., Levy, D. A. L., & Nielson, R. K. (2015). *Digital News Report 2015: Tracking the future of news*. Oxford: Reuters Institute for the Study of Journalism. Retrieved from https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Reuters%20Institute%20Digital%20News%20Report%202015_Full%20Report.pdf
- Nunez, M. (2016, May 9). Former Facebook workers: We routinely suppressed conservative news. Gizmodo. Retrieved from <http://gizmodo.com/former-facebook-workers-we-routinely-suppressed-conser-1775461006>
- Olaisen, J. (1990). Information quality factors and the cognitive authority of electronic information. In I. Wormell (Ed.), *Information quality: Definitions and dimensions* (pp. 91-121). London: Taylor Graham.
- O'Mahony, K. (2014, March). *As it happens: How live news blogs work and their future*. Retrieved from <http://www.lse.ac.uk/media@lse/Polis/documents/As-it-happens.pdf>
- Onion (2014, October 14). White House removes emojis from millennials report. The Onion. Retrieved from <http://www.theonion.com/americanvoices/white-house-removes-emojis-from-millennials-report-37176>
- O'Reilly, T. (2004, June). The architecture of participation. Retrieved November 22, 2014, from http://www.oreillynet.com/pub/a/oreilly/tim/articles/architecture_of_participation.html

- Overberg, P., & Toppo, G. (2014, December 23). Census: Florida's population overtakes New York's. *USA Today*. Retrieved from <http://www.usatoday.com/story/news/nation/2014/12/23/census-florida-new-york-population/20812473/>
- Petty, R. E., Brinol, P., & Priester, J. R. (2009). Mass media attitude change. *Media Effects: Advances in Theory and Research*, 125-164.
- Pariser, E. (2011). *The filter bubble: How the new personalized web is changing what we read and how we think*. New York: Penguin Publishing Group.
- Petty, R. E., & Cacioppo, J. T. (1986). *The elaboration likelihood model of persuasion* (pp. 1-24). Springer New York.
- Pew Research Center. (2012, August 16). *Further decline in credibility ratings for most news organizations*. Retrieved from <http://www.people-press.org/2012/08/16/further-decline-in-credibility-ratings-for-most-news-organizations/>
- Pew Research Center. (2013, November 4). *Twitter news consumers: Young, mobile and educated*. Retrieved <http://www.journalism.org/files/2013/11/Twitter-IPO-release-with-cover-page-new2.pdf>
- Pew Research Center. (2015a, July 14). *The evolving role of news on Twitter and Facebook*. Retrieved from <http://www.journalism.org/2015/07/14/the-evolving-role-of-news-on-twitter-and-facebook/>
- Pew Research Center (2015b, October 8). *Social media usage: 2005-2015*. Retrieved from <http://www.pewinternet.org/2015/10/08/social-networking-usage-2005-2015/>
- Plaisance, P. L. (2013) Transparency. In *Media ethics: Key principles for responsible practice* (5). Available from https://books.google.com/books?id=oUoXBAAQBAJ&pg=PA71&source=gbs_toc_r&cad=4#v=onepage&q&f=false
- Priester, J., Wegener, D., Petty, R., & Fabrigar, L. (1999). Examining the psychological process underlying the sleeper effect: The elaboration likelihood model explanation. *Media Psychology*, 1(1), 27-48.
- Posner, R. A. (2005, July 31). Bad news. *New York Times*. Retrieved from <http://www.nytimes.com/2005/07/31/books/review/bad-news.html>
- Quenqua, D. (2015, January 15). Millennials set to outnumber baby boomers. *New York Times*. Retrieved from <http://www.nytimes.com/2015/01/20/science/millennials-set-to-outnumber-baby-boomers.html>
- Reich, Z. (2012). Journalism as bipolar interactional expertise. *Communication Theory*, 22(4), 339-358.

- Rein, K. (2016, January 5). Survey: Millennials' views of religion, media increasingly negative. *USA Today*. Retrieved from <http://college.usatoday.com/2016/01/05/survey-millennials-views-of-religion-news-media-grows-increasingly-negative/>
- Renn, O., & Levine, D. (1991). *Credibility and trust in risk communication* (pp. 175-217). Springer Netherlands.
- Rieh, S. Y., & Hilligoss, B. (2008). College students' credibility judgments in the information-seeking process. *Digital media, youth, and credibility*, 49-72.
- Roberts, C. (2010). Correlations among variables in message and messenger credibility scales. *American Behavioral Scientist*, 54(1), 43-56.
- Rutenberg, J. (2016, May 22). Facebook's troubling one-way mirror. *New York Times*. Retrieved from http://www.nytimes.com/2016/05/23/business/facebooks-troubling-one-way-mirror.html?_r=0
- Saltz, J. (2014, February 3). Art at arm's length; A history of the selfie. *New York*. Retrieved from <http://go.galegroup.com.libdata.lib.ua.edu/ps/i.do?id=GALE%7CA357480220&v=2.1&u=tusc49521&it=r&p=AONE&sw=w&asid=04b9a160031c3de253a1f5f11c9f510a>
- Schmierbach, M., & Oeldorf-Hirsch, A. (2012). A little bird told me, so I didn't believe it: Twitter, credibility, and issue perceptions. *Communication Quarterly*, 60(3), 317-337.
- Schudson, M., & Anderson, C. (2009). Objectivity, professionalism, and truth seeking in journalism. In K. Wahl-Jorgensen & T. Hanitzsch (Eds.), *The handbook of journalism studies* (pp. 88-101). New York, NY: Routledge.
- Seipp, C. (2002). Online uprising. (Letter from Bloggerville). *American Journalism Review*, (5), 42.
- Shirky, C. (2013). Truth without scarcity, ethics without force. In K. McBride & T. Rosenstiel (Eds.), *The new ethics of journalism: Principles for the 21st century* (pp. 9-24). Los Angeles, CA: Sage.
- Singer, J. B. (2005). The political j-blogger: 'Normalizing' a new media form to fit old norms and practices. *Journalism*, 6(2), 173-198.
- Singer, J. B. (2007). Contested autonomy: Professional and popular claims on journalistic norms. *Journalism studies*, 8(1), 79-95.
- Smith, A. (2011). Why Americans use social media. Washington, D.C.: Pew Research Center. Retrieved from <http://www.pewinternet.org/2011/11/15/why-americans-use-social-media/>
- Sonderman, J. (2012, September 27). One-third of adults under 30 get news on social networks now. *Poynter*. Retrieved from <http://www.poynter.org/latest-news/mediawire/189776/one-third-of-adults-under-30-get-news-on-social-networks-now/>

- Society of Professional Journalists (2014). *SPJ Code of Ethics*. Retrieved from <http://www.spj.org/ethicscode.asp>
- Spence, P. R., Lachlan, K. A., Westerman, D., & Spates, S. A. (2013). Where the gates matter less: Ethnicity and perceived source credibility in social media health messages. *Howard Journal of Communications, 24*(1), 1-16.
- Stark, L., & Crawford, K. (2015). The conservatism of Emoji: Work, affect, and communication. *Social Media + Society, 1*(2), 1-11.
- Tsfati, Y., & Cappella, J. N. (2005). Why do people watch news they do not trust? The need for cognition as a moderator in the association between news media skepticism and exposure. *Media Psychology, 7*(3), 251-271.
- Twitter. (2015a). FAQs about Retweets (RT). Retrieved December 12, 2015, from <https://support.twitter.com/articles/77606>
- Twitter. (2015b). Retweeting another Tweet. Retrieved December 12, 2015, from <https://support.twitter.com/articles/20169873>
- Twitter. (2015c). Using hashtags on Twitter. Retrieved December 12, 2015, from <https://support.twitter.com/articles/49309>
- Twitter. (2015d). What are replies and mentions? Retrieved December 12, 2015, from <https://support.twitter.com/articles/14023>
- Twitter. (2016a). About suspended accounts. Retrieved August 1, 2016, from <https://support.twitter.com/articles/15790>
- Wathen, C. N., & Burkell, J. (2002). Believe it or not: Factors influencing credibility on the Web. *Journal of the American Society for Information Science and Technology, 53*(2), 134-144.
- 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.
- Westley, B. H., & Severin, W. J. (1964). Some correlates of media credibility. *Journalism & Mass Communication Quarterly, 41*(3), 325-335.
- Wilson, P. (1983). *Second-hand knowledge: An inquiry into cognitive authority*. Westport, CT Greenwood Press.
- Wilson, E. J., & Sherrell, D. L. (1993). Source effects in communication and persuasion research: A meta-analysis of effect size. *Journal of the Academy of Marketing Science, 21*(2), 101-112.

APPENDIX A

SURVEY QUESTIONS

A: Twitter usage and favorability questions (pretest)

1. On average, how frequently to you use Twitter?
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily

2. Please indicate to what degree you find the messages you see on Twitter favorable?
 - Very unfavorable
 - Unfavorable
 - Neither favorable nor unfavorable
 - Favorable
 - Very favorable

B: Messenger familiarity questions (pretest)

1. Please indicate which of the following news organizations you have heard of, regardless of whether you use them. If you are unsure of whether you have ever heard of the source, please do not select it. Check all that apply:
 - The *New York Times*
 - Buzzfeed
 - The *Washington Post*
 - Gawker
 - The *Wall Street Journal*
 - The Huffington Post
 - USA Today*
 - Vox

2. Please indicate to what degree you find the following news organizations favorable.
 - The *New York Times*
 - Very unfavorable
 - Unfavorable
 - Neither favorable nor unfavorable

- Favorable
- Very favorable
- Buzzfeed
 - Very unfavorable
 - Unfavorable
 - Neither favorable nor unfavorable
 - Favorable
 - Very favorable
- The *Washington Post*
 - Very unfavorable
 - Unfavorable
 - Neither favorable nor unfavorable
 - Favorable
 - Very favorable
- Gawker
 - Very unfavorable
 - Unfavorable
 - Neither favorable nor unfavorable
 - Favorable
 - Very favorable
- The *Wall Street Journal*
 - Very unfavorable
 - Unfavorable
 - Neither favorable nor unfavorable
 - Favorable
 - Very favorable
- The Huffington Post
 - Very unfavorable
 - Unfavorable
 - Neither favorable nor unfavorable
 - Favorable
 - Very favorable
- USA Today*
 - Very unfavorable
 - Unfavorable
 - Neither favorable nor unfavorable
 - Favorable
 - Very favorable
- Vox
 - Very unfavorable
 - Unfavorable
 - Neither favorable nor unfavorable
 - Favorable
 - Very favorable

C: Media skepticism questions (pretest)

1. Please indicate the degree to which you agree or disagree with the following statements.
 - a. The mainstream media generally provide trustworthy information.
 - Strongly disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly agree
 - b. The mainstream media typically treat all sides of an argument fairly.
 - Strongly disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly agree
 - c. The mainstream media care more about reporting a story accurately than being the first to report it.
 - Strongly disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly agree
 - d. The mainstream media are beneficial to society as a whole.
 - Strongly disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly agree

D: Political cynicism questions (pretest)

1. Please indicate the degree to which you agree or disagree with the following statements.
 - a. Elected officials put the public's interests ahead of their own interests.
 - Strongly disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly agree
 - b. Elected officials are more loyal to the public's interests than special interests.
 - Strongly disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly agree

E: Message credibility questions (asked after exposure to each tweet)

1. Please indicate on the following scales your impressions of the tweet above.

a. I think this tweet is:

- Unbelievable 1 2 3 4 5 Believable
- Inaccurate 1 2 3 4 5 Accurate
- Untrustworthy 1 2 3 4 5 Trustworthy
- Biased 1 2 3 4 5 Not biased
- Incomplete 1 2 3 4 5 Complete

F: Messenger credibility questions (asked after exposure to each tweet)

1. Please indicate on the following scales your impressions of the tweet above.

a. I think [the *New York Times*, the *Wall Street Journal*, *USA Today*, the *Washington Post*, the Huffington Post, BuzzFeed, Gawker, Vox]:

- Cannot be trusted 1 2 3 4 5 Can be trusted
- Is inaccurate 1 2 3 4 5 Is accurate
- Is unfair 1 2 3 4 5 Is fair
- Does not tell the whole story 1 2 3 4 5 Does tell the whole story
- Is biased 1 2 3 4 5 Is not biased

G: Media and news consumption questions (posttest)

1. On average, how frequently do you consume news via each of the following communication channels?

- Print (includes newspaper or magazine)
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- Television (includes network television, cable television, or program streaming service such as Netflix, Hulu, etc.)
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- Radio (includes AM/FM radio, satellite radio, digital television radio, or podcasts)
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month

- Once a week
 - Two or three times a week
 - Daily
 - Online platform (includes social networking sites, blogs, microblogs, video blogs, news web sites, digital newspapers/magazines, RSS feeds, etc.)
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
2. On average, how frequently do you consume news via each of the following digital communication channels?
- Social media (includes social networking sites, blogs, microblogs, video blogs, etc.)
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - News web site (includes the *New York Times* web site, the NPR web site, BuzzFeed's web site, etc.)
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - Digital newspaper or magazine (often read on a tablet or e-reader)
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - Online content aggregator (includes Google News, Yahoo News, MSN News, etc.)
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week

- Daily
- 3. On average, how frequently do you consume news via each of the following social media platforms?
 - Facebook
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - Twitter
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - Tumblr
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - Instagram
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - Pinterest
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - Reddit
 - Never
 - Less than once a month

- Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - Youtube
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - LinkedIn
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - Yik Yak
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
4. On average, how frequently do you consume news from each of the following news organizations via social media? If you most often consume news on social media from a news organization that is not listed below, please select "Other" and name it in the blank provided.
- *The New York Times*
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
 - *The Washington Post*
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month

- Once a week
- Two or three times a week
- Daily
- *The Wall Street Journal*
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- *USA Today*
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- *The New Yorker*
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- The Huffington Post
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- BuzzFeed
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- Gawker
 - Never
 - Less than once a month

- Once a month
- Two or three times a month
- Once a week
- Two or three times a week
- Daily
- Vox
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- Slate
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- Politico
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- NBC News
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- MSNBC
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- Fox News

- Never
- Less than once a month
- Once a month
- Two or three times a month
- Once a week
- Two or three times a week
- Daily
- NPR
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- CNN
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- CBS News
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily
- Other: _____
 - Never
 - Less than once a month
 - Once a month
 - Two or three times a month
 - Once a week
 - Two or three times a week
 - Daily

H: Demographic questions (posttest)

1. What is your age?
 - _____
2. What is your level of education?
 - Doctoral or professional degree

- Master's degree
 - Bachelor's degree
 - Associate's degree
 - Postsecondary non-degree award
 - Some college, no degree
 - If still in college, what is your year?
 - Senior
 - Junior
 - Sophomore
 - Freshman
 - If you have at least some college education, what is/was your major?
 - Journalism
 - Telecommunication and Film/Broadcast News
 - Advertising/Public Relations
 - Communications
 - Other: _____
 - High school diploma or equivalent
 - Less than high school
3. How would you identify yourself politically?
- Very liberal
 - Liberal
 - Moderate
 - Conservative
 - Very conservative
4. With which political party do you most closely identify?
- Democrat
 - Republican
 - Other: _____
5. What is your gender?
- Male
 - Female
 - Gender nonconforming
 - Other
6. What is your ethnicity or race?
- White
 - American Indian or Alaska Native
 - Asian
 - Black or African American
 - Native Hawaiian or Other Pacific Islander
 - Hispanic or Latina/Latino/Latinx
 - Other: _____

APPENDIX B

IRB APPROVAL DOCUMENTS

THE UNIVERSITY OF
ALABAMA

Office of the Vice President for
Research & Economic Development
Institutional Review Board for the Protection of Human Subjects

April 8, 2016

Anna Waters
Department of Journalism
College of Communication & Information Sciences
Box 870172

Re: IRB # 16-OR-148, "Perceptions of News Organizations and Messages on Twitter"

Dear Ms. Waters:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of informed consent and waiver of written documentation of informed consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on April 7, 2017. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

Carpanfatto T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer
Office for Research Compliance
The University of Alabama

Recruitment Invitation:

Anna Waters, Principal Investigator from the University of Alabama, is conducting a study called “Perceptions of News Organizations and Messages on Twitter.” She wishes to explore perceptions of news media organizations and news content on social media.

Taking part in this study involves completing a web survey that will take about 25 minutes. This survey will ask you to evaluate four different tweets from four different news sources. This survey also contains questions pertaining to Twitter usage and favorability, news outlet familiarity and favorability, personal and political predisposition, news and media consumption, and demographic information.

This survey is completely confidential. We will protect your confidentiality by removing any demographic information associated with your responses prior to sharing findings publicly. Only the principal investigator, Anna Waters, and the co-principal investigator, Dr. Chris Roberts, will have access to the data. The data are password protected. Only summarized data will be presented at meetings or in publications.

There will be no direct benefit to you, but the findings will be useful to communication researchers studying news and social media.

The chief risk is that some of the questions may make you uncomfortable. You may skip any questions you do not want to answer. If you become so uncomfortable that you feel you cannot continue, you may stop participating in the survey at any time. If further help is needed with these problems, you can contact the Counseling Center at (205) 348-3863.

If you have questions about this study, please contact Anna Waters (amwaters@crimson.ua.edu) or Dr. Chris Roberts (croberts@ua.edu). If you have questions about your rights as a research participant, contact Ms. Tanta Myles, the University Compliance Officer, at (205) 348-8461 or toll-free at 1-877-820-3066. If you have complaints or concerns about this study, file them through the UA IRB outreach website at http://osp.ua.edu/site/PRCO_Welcome.html. Also, if you participate, you are encouraged to complete the short Survey for Research Participants online at this website. This helps UA improve its protection of human research participants.

YOUR PARTICIPATION IS COMPLETELY VOLUNTARY. You are free not to participate or stop participating at any time before you submit your answers.

If you understand the statements above, are at least 18 years old, and freely consent to be in this study, click “continue” to begin.

[Continue]

UA IRB Approved Document
Approval date: 4-8-16
Expiration date: 4-7-17

Debriefing

In order to avoid priming survey responses, the specific focus of this study was initially concealed from you. This study's primary aim is to determine whether any significant differences exist in how Twitter users between the ages of 18-24 perceive message and messenger credibility for "new" media news organizations, such as BuzzFeed, and "old" media news organizations, such as The New York Times, on Twitter. The benefits of avoiding the word "credibility" to the validity of the study outweigh the risks of psychological damage to the participants as a result of this concealment.

To effectively test message credibility and avoid participants' prior knowledge of actual news events, the tweets you evaluated were adapted from hoax news websites or invented by the researchers for the purpose of this study. They were not true and were not taken from legitimate news stories. Additionally, participants who were randomly selected to evaluate tweets from the control group were only exposed to messages from fake news organizations created by the investigator solely for this study. The benefits of using fake news stories and fake news sources to internal validity of this study outweigh the risks of psychological damage to participants as a result of this deception.

If you have any questions in light of this new information, or if you now wish to withdraw from the study and for your data to be removed, contact the investigator, Anna Waters, at amwaters@crimson.ua.edu. If you choose to withdraw your data, you will still receive the same amount of research credit had you chosen not to withdraw your data.

UA IRB Approved Document
Approval date: 4-8-16
Expiration date: 4-7-17