

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

LEVERAGING THE SOCIAL NETWORK:
HOW JOURNALISTS AND NEWS ORGANIZATIONS CONNECT WITH
READERS ON TWITTER

A THESIS

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

MASTER OF ARTS

By

CLIFTON ADCOCK

Norman, Oklahoma

2016

LEVERAGING THE SOCIAL NETWORK:
HOW JOURNALISTS AND NEWS ORGANIZATIONS CONNECT WITH
READERS ON TWITTER

A THESIS APPROVED FOR THE
GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION

BY

Dr. Peter Gade, Chair

Dr. Jaime Loke

Mrs. Judy Gibbs Robinson

Dedication

This thesis is dedicated to my loving wife Shannon and my wonderful children Gage, Michael, and Susannah.

You have stood by me, brought me happiness, and encouraged me through all of these years of hard work.

Most importantly, you have loved me and made me happy.

And now the work is done.

You are my success

Acknowledgments

I would like to gratefully acknowledge the people who gave their time and labor to assist me in completing this thesis. It could not have even come close to completion without the guidance and assistance of my committee chair and advisor Dr. Peter Gade, who has gone the extra mile to lend his experience and expertise to this endeavor. I would also like to thank committee members Dr. Jaime Loke and Judy Gibbs Robinson for sacrificing their time, offering their feedback, and going above and beyond to ensure that this work is completed. I would also like to acknowledge my editor at *Oklahoma Watch* David Fritze for working with me as I've labored on this thesis through the years by allowing me the time to complete it. I would also like to acknowledge my friend Christopher Krug, who helped put me on this road by encouraging me to begin walking it. Finally, I would like to thank my wife Shannon for always standing by me, encouraging me, and waiting up for me on all of those late nights spent working on this and helping me see it through to completion.

To all of you have participated in and contributed to this work, I can never thank all of you enough for the assistance, opportunities, and knowledge you've provided to me along the way. It could not have been done without you. Thank you.

Clifton Adcock

April 21, 2016

Table of Contents

	<u>Page</u>
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	vi
LIST OF FIGURES.....	vii
ABSTRACT.....	viii
CHAPTER 1: INTRODUCTION.....	1
CHAPTER 2: LITERATURE REVIEW.....	8
Media and Society: From Mass to Networked.....	8
Networks.....	17
Communication Flow within Social Networks.....	24
Opinion Leaders.....	27
The Mediated Social Network.....	31
Journalism and Social Media.....	35
Hypotheses and Research Questions.....	43
CHAPTER 3: METHODS.....	51
Population and Sample.....	51
Content Measurements.....	54
Interaction.....	57
Opinion Leaders.....	59
CHAPTER 4: RESULTS.....	62
CHAPTER 5: DISCUSSION.....	74
REFERENCES.....	87

List of Tables

	<u>Page</u>
TABLE 1: TWITTER CHARACTERISTICS & INTERACTION.....	62
TABLE 2: JOURNALIST & NEWSPAPER TWITTER CONTENT ELEMENTS.....	63
TABLE 3: SELF-DISCLOSURE BY NEWSPAPERS & JOURNALISTS.....	65
TABLE 4: RETWEETED CONTENT ELEMENTS.....	66
TABLE 5: TYPES OF INTERACTIONS.....	67
TABLE 6: INTERACTION RATIOS.....	68
TABLE 7: RETWEETS WITH & WITHOUT OPINION LEADERS.....	72

List of Figures

	<u>Page</u>
FIGURE 1: TWITTER MESSAGE ELEMENTS.....	56
FIGURE 2: SOCIAL NETWORK COMMUNICATION.....	57

Abstract

As journalists and newspapers have attempted to adapt to a new media environment uncertainty remains about how best to approach the use of social media while retaining the journalistic values that have served as a check against misinformation. This study examines how news producers communicate on social media and what interpersonal communication concepts are at work in a mediated social network. Using the concepts found in social network theory, the study tests the roles of interaction, self-disclosure, new journalism values, and the role of opinion leaders on Twitter. Data from the Twitter accounts of 10 newspapers and 40 journalists based in Oklahoma was collected and analyzed. The results of this analysis showed strong effects by opinion leaders and self-disclosure in message propagation. Results also showed a lack of transparency by journalists and newspapers and differences between how often they provided self-disclosure to and engaged with their audiences. However, the results also show that journalists and newspapers both missed several opportunities to better engage audiences and bring them into the conversation.

Keywords: Journalism, Twitter, Social Networks, News, Media

Chapter 1: Introduction

Throughout the history of mass communication, the introduction of new communication technologies has caused disruption to the business and professional models of the existing media, requiring they adapt to survive (Singer, 2011; Lowrey & Gade, 2011; Kovach & Rosenstiel, 2010). However, unlike previous innovations such as the television or radio, the Internet is not simply a new mass communication medium, but based on a communication model entirely different than the “mass” model that dominated the previous era (Chaffee & Metzger, 2001; Gade & Lowrey, 2011). Thus, a different way of thinking about how to adapt to this new media landscape is required.

For more than a decade, news media organizations have seen their newsrooms shrink, their revenues decline, their practices change, and their audiences fragment because of this revolution in communication (Gade, 2011; Kovach & Rosenstiel, 2010). The lines between audience and communicator have become blurred. In the past, people have relied on a mass media through which a mostly one-way exchange of information, broadly tailored to be understood by and appeal to the wider interests of the general public. But a new form of media capable of combining many novel aspects of its forerunners has begun to replace the mass era of communication with a digital one. Unlike previous forms of media, the digital media ushering in this new era are mobile, social, and networked. Legacy media companies are finding it increasingly necessary to use this new medium in an attempt to grab the attention of new types of audiences in order to make up for the increasing departure of their own audiences. These new audiences are able to offer instantaneous feedback, customize their media intake to

those sources that fit their unique interests, and create their own content that draws large audiences. Legacy media outlets can find themselves competing for audiences with user-generated sites and content. No longer are audiences considered *passive* receivers of content generated by the mass media, but instead are considered *active*, in that they are able to choose and use media in ways that gratify them and promote their own socialization with others through the interactivity offered by the Internet (Dimmick, Powers, Mwangi, & Stoycheff, 2011; Lee & Ma, 2012). The model of mass media is in decline. The model of network communication is in its ascendancy. This network communication model is a system that is dynamic, organic, niche, and far more complex than the mass model. (Gade & Lowrey, 2011; Dimmick, et al., 2011; Lee & Ma, 2012; Picard, 2009).

As a result of these profound changes in the way audiences consume media, news media business managers and journalists face increasing uncertainty of what the future holds, and the institutions of journalism find themselves in crisis (Lowrey & Gade, 2011). In an attempt to build their audiences, drive readers to their websites, and compete in the new media ecosystem, institutional news outlets as well as individual journalists have established a presence on social media sites such as Facebook and, especially, Twitter (Lasorsa, et al., 2012; Hong, 2012; Hermida, 2010; Clayfield, 2012; Farhi, 2009). Having a social media presence to reach out to audiences appears to be a successful strategy (Hong, 2012), though news outlets and individual journalists vary widely in how they use and interact with audiences on social media (Strupp, 2009; Lasorsa, et al., 2012). Often, the official corporate social media account of a news outlet sticks to posting or sharing content or promoting its product (North, Bloom, Al Nashmi,

& Cleary, 2014), while some individual journalists may include personal information, opinion, or other humanizing elements in their social media messages (Strupp, 2009; Lasorsa, et al., 2012; Meraz & Papacharissi, 2013). Though news outlets may be searching for ways to gain larger audiences through social media, the constraints of traditional journalistic norms –an arm’s length relationship with outsiders, objectivity, and the idea that news is what journalists say it is -- may often prevent them from truly interacting with their audiences in a meaningful and socially connective way (Strupp, 2009; Lasorsa, et al., 2012; Picard, 2009).

Not only is pressure from traditional journalism values and practices at work when journalists use social media, but there is often corporate pressure from their employers as well (Holton & Molyneux, 2015). Because there remains a great deal of uncertainty on the part of both news organizations and journalists about how social media should be used, journalists have struggled to find a balance in how much information they present online about themselves and how much they present related to their work (Holton & Molyneux, 2015). Conflicts have arisen between established journalism norms, such as not offering opinions, and with journalists’ employing news organizations (Holton & Molyneux, 2015). Many news organizations have tightened control of what their journalists do or say on social media by demanding that personal information not be posted, that journalists use their social media platform to promote the news organization, and only offering content that has been approved by the organization (Holton & Molyneux, 2015). This has caused many reporters to lament that institutional news organizations are requiring journalists to sacrifice their online personal and professional identities to make room for organizational branding.

Though many institutional news organizations have put pressure on their journalists to conform to their visions of how social media should be used, those organizations too are feeling pressure from new forms of online competition, the inability to effectively monetize online content, and maintaining their relevancy in the new media environment (Hermida, 2013). Institutional news organizations have begun to see social media as an important element of their branding and outreach efforts, as more people sign up for social media websites and an increasing portion of news websites' traffic comes directly through hyperlinks shared on social media sites (Weeks & Holbert, 2013). The vast majority of major newspapers have adopted social media platforms to help distribute content (Ju, Jeong, & Chyi, 2013). At first, however, news outlets were slow to adequately adopt social media as part of their strategy (Hermida, 2013). Rather than shifting their strategy to effectively employ social media in a way that used the strong points of the new format, news outlets used social media as a cheap and easy way to “shovel” existing content to users (Hermida, 2013). Many media outlets have also retained their “mass media” mindset when it comes to social media by offering only a one-way flow of communication (Hermida, 2013).

Because the “mass” model of communication means almost exclusively one-way communication from media outlets to audiences, journalists and news organizations have traditionally had little interaction with their audiences (Tsfati, 2010). The concept of interaction is one of the strongest features of the very social media platforms that journalists and media outlets hope to leverage. Shifting from a “mass” to a “networked” style of communication requires a better understanding of how

information and ideas flow in social media networks, and how to possibly tap into those networks (Lowrey & Gade, 2011).

Researchers have found some evidence of similarities between the structures and flow of information in face-to-face and mediated social networks. Interpersonal communication concepts such as self-presentation and self-disclosure, both of which can be used build intimacy and trust between parties, come into play in a network-based social media format (Kaplan & Haenlein, 2010). “Opinion leaders” – influential individuals within a social network – were first described in the landmark 1940 Erie County, Ohio, study of media effects, which found that information flows through opinion leaders to other members of the social group, a process known as two-step flow (Lazarsfeld, Berelson & Gaudet, 1944). Opinion leaders were later found to be extremely important in other theories dealing with group information flows, such as diffusion of innovations theory (Granovetter, 1983). The influence of opinion leaders in introducing new information and ideas also extends to mediated social networks (Wu, Hofman, Mason & Watts, 2011; Dubois & Gaffney, 2014; Meng, Wei & Zhu, 2011; Dong & Zhang, 2008). Other group concepts, such as group homogeneity, are also found in mediated social networks (Himmelboim, McCreery & Smith, 2013).

It is through social media that journalists and news institutions can reconnect with their audiences in new ways not only by presenting them with useful and relevant information, but by engaging and interacting with them, and bringing them into the news creation and dissemination process (Skoler, 2009). The news media/audience relationship has changed dramatically. Today’s audience is an active one, seeking out media that can meet their own needs and gratifications, choosing and sharing with

others the content that they are most interested in (Dimmick, et al., 2011). It is the relationships within social networks that people value, and forming those relationships requires interaction and the ability to listen (Skoler, 2009). If a media outlet chooses to continue viewing its audience as merely the destination of its end product, rather than an important part of the news creation and dissemination process – forgoing interacting with its audience and harnessing the power of a networked active audience – then its audiences have plenty of other media options available that do meet their wants and needs. “The problem with mainstream media isn’t that we’ve lost our business model. We’ve lost our value,” Michael Skoler writes (2009, p. 40). “We are not as important to the lives of our audience as we once were. Social media are the route back to a connection with the audience.”

The emergence of this new media model has raised concerns that, given the ability of the audience to now tailor media intake to conform to its knowledge base and beliefs, individuals will become less informed about the world around them. In the past, journalistic values - which aim to present the public with the most accurate, unbiased, and relevant information possible – have served as a check against misinformation to some degree. But that was when media companies were among the few distributors of media content. Today, journalists find themselves on equal communication footing with many who are not bound by such journalistic values (Singer, 2011). In a democratic republic, the more citizens who are uninformed, the less likely it will be that they make the well-reasoned and well-informed decisions that are critical to the survival of democratic values. So how can journalists and media companies best leverage this new

media environment to remain relevant while keeping the journalistic values that make important contributions to the survival of a democracy?

The purpose of this study is to examine the ways journalists and institutional media outlets use social media and whether their use of social media has strategic elements to it, as well as to better understand the interpersonal communication concepts at work in mediated social networks. To do this, the study will look at how journalists and media outlets differ in their use of Twitter. This social media platform is one of the most-used to disseminate news (Lasorsa, Lewis, & Holton, 2012) It will also examine the adoption of new journalistic values that seek to adapt the profession to the new media environment and enhance journalistic offerings to the public.

A review of the literature relevant to this study will first examine the shift from “mass” to “networked” communication assumptions, the dynamics involved in social network communication, such as the homogenous nature of social networks and the role of interpersonal communication concepts such as interaction and self-disclosure in the formation of bonds within the network. Existing literature relevant to the study also shows how those social group bonds can be strong (in-group) or weak (between-group), and how the relationships that form between social groups allow for information and ideas to flow between them, often through group members known as “opinion leaders.” The literature shows how these interpersonal communication concepts transfer over to social media networks, how journalists and media outlets are using Twitter, and how this new tool has impacted the professional norms and values of journalism.

Chapter 2: Literature Review

Media and Society: From Mass to Networked

The foundations upon which mass media and journalism rest are the modernist ideas emerging from the late 19th and early 20th centuries (Gade, 2011). Media organizations, as well as other institutions emerging during the modern era, were hierarchical in organization and division of labor; employees had specialized skills suited for the areas they worked, and the organization held almost total control over what it produced (Gade, 2011). Likewise, journalism ethics and values that emerged from the early modern era held objectivity, autonomy, and the search for an observable, absolute truth in the highest esteem (Gade, 2011). However, the rise of postmodernism in the late 20th century, facilitated by the Internet, has undercut not only the idea of those organizational structures and journalism values, but also the idea that any absolute observable truth exists at all (Gade, 2011; Strinati, 1995).

Proponents of mass society and mass culture theory state that the changes brought through industrialization and urbanization in the late 19th and early 20th centuries “atomized” individuals by weakening traditional mediating social groups around which society arranged itself (Strinati, 1995; Wartella & Middlestadt, 1991). The decline of these organizations radically altered the traditional relationships commonly held among people, going from the close, informal relationships of the tight-knit agrarian community to rigid, contractual relationships that were often distant, sporadic, and lacking a moral grounding (Strinati, 1995; Baran & Davis, 2013; Wartella & Middlestadt, 1991). As the traditional organizations and community networks that once held authority on matters of morality and identity declined, new institutions marked by their large scale and hierarchical structures rose to take their place as arbiters

and purveyors of morality, work ethic, taste, and shared culture (Strinati, 1995; Castells, 2013; Baran & Davis, 2013). Included in these new institutions were the mass media (Murdock, 1993).

Although mass media were a product of the technological innovations of the modern era, they played an enormous role in the shift from modern to postmodern culture. Post-modern theory states that, following the establishment of the infrastructure and labor pool that brought about an industrialized mass society, capitalism demanded consumption of the goods being produced by industry, thus the focus was shifted from creation to consumption (Strinati, 1995). The technological innovations and economic growth that came about following World War II created a large market for non-essential goods, and companies began making a greater push to advertise their products through the mass media (Featherstone, 2007). Products began to be associated with the emotion, individuality, and images appropriated from their social and historical contexts as advertisers began to attach their products to ideas of beauty, desire, and other emotions. The increased use of media – and increased exposure to these associations and ideas – was one of several factors contributing to a societal shift from a productive culture to a “reproductive” culture that valued style over substance, emotion over reason, rejection of claims to truth, and individual interpretations of meaning over shared cultural ones (Featherstone, 2007; Harms & Dickens, 1996).

Postmodern theory suggests that these changes have challenged the classic liberal notion of mass media being a mirror that reflects a society. Postmodernism theories suggest that the mass media distorts that reflection while at the same time shaping reality. Similar to mass society, the effects of mass media in a post-modern

society alienate the individual from other more traditional social institutions that help form cultural identity, leaving only popular culture and mass media to provide these frames reference (Strinati, 1995). However, further technological innovations began to replace the mass media as the purveyors of culture. The proliferation of the Internet allowed individuals to use media in ways that gratified them personally rather than accepting the generic popular culture messages offered through “mass” media (Gade, 2011). Individuality – a highly promoted postmodern ideal by the mass media – has taken on new meaning in the age of the Internet, allowing individuals to reject the metanarratives promoted by mass media (Gade, 2011). In its place, individuals are now able to create their own media messages, form online interactions and relationships with others, and through these relationships form mediated social networks (Gade, 2011). The technological innovations that allowed individuals to move beyond media created for mass consumption have helped further enhance the individualization of the postmodern world (Gade, 2011). This “individuation” of society reconstructs sociability as a quest to find like-minded individuals, both through the Internet and offline, a process Castells (2012, p. 23) calls “networked individualism.”

While this does not mean traditional forms of mass media will completely go away or be replaced by new digital technologies (Dimmick, 2011) since each medium and format serves individuals in different ways, different contexts, and complement other forms of media (Nguyen & Western, 2006), it does mean that the routines and models that formerly served the mass media should be re-evaluated (Gade, 2011; Dimmick, et al., 2011; Singer, 2011; Lowrey & Gade, 2011).

Technological advances in computing and Internet technology have allowed for the increased use of and reliance on online social communication networks, a phenomenon some believe to be the last stage of evolution of the global web (van Dijk, 2005). As society becomes more individualized, the human need for socialization and interaction are being increasingly satisfied through online social network communication (van Dijk, 2005; Castells, 2013). Old forms of societal organization that arose during the modern era – marked by a centralized and hierarchical organizational structure based on geographic location in which formalized relationships and with relatively few means of mass communication – are being reconstructed through a networked form of societal organization (Castells, 2013; van Dijk, 2005). In the networked society, organizational structure is mostly flat, fragmented, and not bound by geographical proximity, while relationships are mostly informal and niche, in that they are often based on characteristics or interests of the individual (van Dijk, 2005).

Since the mid-1990s, mediated communication has undergone profound changes. The Internet has helped blur the lines between communicator and audience, and individuals now have easy access to platforms from which their own content has the potential to be distributed to large audiences.. Between 1995 and 2014, the percentage of Americans who use the Internet rose precipitously, from 14 percent to 87 percent (Fox & Rainie, 2014). In 2014, 71 percent of those who used the Internet used at least one social media website, and more than half used multiple social media platforms (Fox & Rainie, 2014). As the Internet gained popularity and more individuals began to gain access to this digital realm, news and information became not only easier to access, but more abundant and niche-oriented as well (Gade & Lowrey, 2011).

The ideology and spread of Web 2.0 – a term coined in 2004 to define the new way that users and developers used the web by consistently and collaboratively modifying published content – and the rise of user-generated content are basic concepts under which modern social media platforms exist (Kaplan & Haenlein, 2010). The concept of Web 2.0 arose from the dot-com bust of 2001, when many were considering the possibility that the Internet was overhyped (O’Reilly, 2007), and marked a turning point for the web. Sites and companies that once dominated the Internet by treating software and content as a *product* were replaced by sites and companies that treated such things as *services* (O’Reilly, 2007).

Meanwhile, mass media outlets – once the only means of communication to the public on a mass scale – began to see the shifting of the sands upon which their business models rested. News media organizations, which once were gatekeepers of information disseminated to the public, saw their revenue fall by nearly 50 percent between 2000 and 2008, newsroom staffs were cut by around a third, and audiences shrank to roughly half of what they were a decade earlier (Kovach & Rosenstiel, 2010). Ill prepared for this revolution in communication and plagued by uncertainty (Gade & Lowrey, 2011), many news media companies began to compromise long-held journalistic values and practices, attempted to replicate the success of other companies through mimicry, and focused more on marketing than their core news products in an attempt to remain profitable and relevant (Gade & Lowrey, 2011). The hierarchal organization of the newsroom, the assembly line-like production of news, and the autonomy reporters had when reporting the news was likewise not immune to this shift (Gade, 2011). More and more pieces of the assembly line have been removed, reporters now do multiple jobs in

addition to reporting, while editors seek out readers to tell them what they consider news – a complete reversal of the old journalistic norms (Gade, 2011). “Mainstream media were doing fine when information was hard to get and even harder to distribute,” writes Michael Skoler (2009, p. 38). With the proliferation of the Internet, Skoler writes

If the local paper and stations weren’t considered trustworthy and journalists seemed detached from what really mattered to them, people could find what they wanted elsewhere. What’s more, they could stop being passive recipients. They could dig deeply into topics, follow their interests and share their knowledge and passions with others who cared about similar things. (Skoler, 2009, p. 39)

In addition to being a new *method* of mass communication, whose presence could be easily adapted to in ways similar to newspapers’ reactions to the invention of the radio or television in the early 20th century, the Internet also proved to be the foundation upon which the connections between digital media was built.. While the Internet utilizes the old mass communication formats – text, still images, sound, and video – it also alters how the content in those formats is delivered from a top-down flow with a definitive end point to a multi-faceted, multi-directional flow that has no definitive end point. In the traditional “mass communication” model, most communication flowed one way – from sender to receiver, with little opportunity for feedback (Chaffee & Metzger, 2001). Three distinguishing features defined “mass media”: mass produced content, a lack of individual audience-member control over content, and a finite number of available channels through which content passes (Chaffee & Metzger, 2001). Under this model, the ability to communicate with the masses was controlled almost exclusively by media institutions, characterized by those institutions’ “bigness and fewness” (Schramm, 1957, quoted by Chaffee & Metzger, 2001, p. 366). The Internet, on the other hand, is a decentralized network in which

information is abundant and easy to access (Gade & Lowrey, 2011), users are capable of communicating back and forth with each other, much of the content is user-generated, and the audiences are fragmented and niche (Chaffee & Metzger, 2001). This newly available abundance of information that could be tailored directly to the wants and needs of the individual understandably had a negative effect on an industry built on information scarcity (Gade & Lowrey, 2011; Lasorsa, et al., 2012). For the audience, the Internet offers not only almost unlimited information, but also the “ultimate in gratification opportunities” through a wide variety of formats and mobile availability (Dimmick, et al., 2011, p. 180). These gratification opportunities guide the behavior of the news consumer, and changes in the amount of, presentation of, and access to information have caused audiences to fragment and shift, upsetting the order maintained by traditional news organizations (Dimmick, et al., 2011).

The Internet has not only changed the way society communicates and organizes itself, it has helped change what constitutes “power” (van Dijk, 2005; Castells, 2013). In a global network society, power is the ability to exercise control over others either by the ability to set up and program networks (those known as “programmers”) or the ability to connect with others in the network to cooperate toward a common goal (known as “switchers”) (Castells, 2013). The rise of mediated network communications that are individually tailored by the user and the declining trajectory of mass media institutions is in many ways the opposite of what many social theorists and philosophers observed during the 20th century, which was the decline of personal social networks and ties partially as a result of the ascendancy of mass media. Because of these changes, businesses that had once stood “above” society to deliver mass (de-individualized),

information in a one-way communication system are having to become more niche, interactive, and embedded within society in order to survive (Gade & Lowrey, 2011; van Dijk, 2005; Kovach & Rosenstiel, 2010). As news outlets become more connected with other forms of media like blogging, email, and other web documents, they have become less a form of mass communication and more a component of what Castells (2013) calls “mass self-communication” through horizontal and global multimodal networks of communication built around people’s interests and desires that incorporate different types of online documents and user-generated content. It is the gratification opportunities offered by this ability to mass self-communicate that are partially responsible for the fragmentation of audiences, as more users forgo traditional forms of mass communication (Dimmick, et al., 2011). As media companies try to meet the needs and wants of users, they are adopting social media to form direct links to these horizontal mass self-communication networks, thus taking on the role of a “switcher” (Castells, 2013). In short, users are driving the evolution of this new medium, not institutions, but it is the media institutions that are facilitating some of the links between the global communication network nodes (Castells, 2013).

These changes have led to an increasing number of challenges for traditional journalism values such as objectivity, verification, and independence (Gade, 2011; van Dijk, 2005; Kovach & Rosenstiel, 2010). Because mediated relationships in the network society are rooted in interpersonal concepts (van Dijk, 2005), journalists have had to search for new core values such as transparency (Buttry, 2014; Singer, 2011; Lasorsa, et al., 2012), while reducing the significance of other traditional journalistic roles, such as gatekeeping (Loke, 2012; Lasorsa, et al., 2012).

Over the past few decades, the public has been increasingly losing trust in news institutions (Pew Research Center for People and the Press, 2011). According to the Pew Research Center for People and the Press (2011, 2012), negative opinions about the performance of the press are at an all-time high. Around 66 percent of those surveyed said they believed news stories were often inaccurate, 77 percent said news organizations tend to favor one side, and 80 percent said powerful people and groups influence news organizations (Pew Research Center for People and the Press, 2011). In an effort to maintain credibility, the idea of transparency – telling audiences how a story was reported and what steps were taken to get the story – has been adopted as a core journalistic value (Buttry, 2014; Singer, 2011; Lasorsa, et al., 2012).

In 2014, the Society of Professional Journalists added transparency to its journalistic code of ethics, codifying a new tool that encourages accountability on the part of the press (Royer, 2014). “Ethical journalism means taking responsibility for one’s work and explaining one’s decisions to the public,” the revised SPJ code of ethics states (2014). In defining transparency, the organization states that journalists should explain ethical choices and processes to the audience, encourage civil dialogue with the public about journalistic practices and content, respond quickly to questions of accuracy, clarity, and fairness, acknowledge mistakes quickly and explain corrections clearly, expose unethical journalism behavior both within and outside one’s own organization, and abide by the high standards expected of others (Society of Professional Journalists, 2014).

Social media, with their links not only to audiences but other journalists and media outlets as well, would seem to be an excellent platform to engage in this practice.

However, the act of journalists interacting with audiences in online spaces challenges the traditional journalistic role as the sole gatekeeper of information (Singer, 2011; Lasorsa, et al., 2012; Loke, 2012). The shift in who controls the flow of information has led journalists to also engage in “gatewatching” – watching the social media feeds and trending topics from around the web to find relevant stories and bring those stories to their audiences (Singer, 2011; Hermida, 2013).

While a number of journalists view the new idea of responding to audiences with skepticism and have attempted to “normalize” their online presence to conform to the traditional gatekeeper role, many embrace the chance to interact and engage with readers online (Loke, 2012; Lasorsa, et al., 2012). The rise of journalist blogs, which often showcase the journalist’s voice and style in ways traditional news writing does not, has allowed journalists not only to interact with readers, but also to embrace a network style of credibility building (Singer, 2011). Finding truth has become more of a collaborative effort, and the ability to interact allows the journalist to engage not only in transparency but also to bring the audience in as an active participant in the process as well, building relationships and trust (Singer, 2011). “Trustworthiness, in this view, is demonstrated rather than simply demanded,” Singer (2011, p. 222) writes. “Or so goes the theory.”

Networks

Although networked communication is relatively new for mediated forms of communication, it is actually a system of communication that is as old as the human race itself - as long as there have been social groups there have been networks of communication (van Dijk, 2005). Researchers have portrayed human history as having

thus far progressed through five distinct worldwide social webs. The fifth and most recent such web is referred to as the global web, which has formed in the last 160 years (van Dijk, 2005). The global web is broken down into two periods: the mass society period, characterized in part by mass communication networks, and the network society period facilitated by the invention and growth of the Internet (van Dijk, 2005). It is in this second period of the fifth worldwide network that humans currently find themselves in. It is a period in which media are increasingly used to establish, maintain, and expand individuals' various social and professional ties. The technological advances that have changed the characteristics of media have also changed the role media plays in society. Media is no longer strictly for passive mass consumption. Digital media can now be used to interact, socialize, and tailored to fit the preferences of the user. Furthermore, the changes to media's societal role have themselves changed society. Relationships between individuals and groups are no longer a strictly face-to-face affair. Increasingly, the communication that helps link individuals is being done through the use of media. These media-facilitated communication linkages between individuals and groups form an online social network. The various forms of social media, such as Twitter, facilitate the formation of these mediated social networks.

Yet, while the format many individuals use to become or remain part of a social network may have changed, many of the factors that bind individuals in offline social networks remain unchanged. People still choose to form relationships with others for many of the same reasons online as they do offline (Dubois & Gaffney, 2014; Guoqiang, Lockee, & Cuiqing, 2013; Tu, 2001), conform to mediated and non-mediated social group norms, and often seek out like-minded groups to associate themselves with,

whether the association is through media or in person. Therefore, to better understand the dynamics involved in a social media environment, it is important to first understand how social networks in general operate.

Van Dijk (2005, p. 24) defines networks as “a collection of links between elements of a unit,” also referred to as a “system.” A communication network is defined as “the patterns of contact that are created by the flow of messages among communicators through time and space” (Monge & Contractor, 2003, p. 3).

Communication networks can involve a system that extends across the globe and encompasses millions of people or be as small as three individuals, can be either formally or informally established, and are often the basis for social networks between individuals or groups (Castells, 2013; van Dijk, 2005; Monge & Contractor, 2003; Scott, 2000). This holds true not only for traditional social networks that rely on face-to-face interaction but also for the ever increasing number of social networks that are formed or maintained through the use of online media platforms (Meng, Wei, & Zhu, 2011; Quercia, Ellis, Capra, & Crowcroft, 2011; Kaplan & Haenlein, 2010; Cha, Haddadi, Benevenuto, & Gummadi, 2010; Meraz & Papacharissi, 2013; Song, 2013; Marwick & Boyd, 2010; Boyd & Ellison, 2008). In other words, although a vast number of social networks today rely on media to facilitate them, many of the same interpersonal communication concepts that govern non-mediated social networks are still at work. Therefore, in order to understand how mediated social networks operate, it is important to look at the characteristics shared with non-mediated social networks and interpersonal communication.

The individual elements of a network are called “nodes” or “points” and the linkage between two nodes is called a “relationship,” a “tie,” or a “dyad” (van Dijk, 2005; Monge & Contractor, 2003). The minimum number nodes required to form a network is three and the minimum number of links required is two, but there is no maximum threshold of nodes and linkages that can exist in a network (van Dijk, 2005). Each node has its own properties, and each relationship or linkage has its own properties as well. All of those properties can be affected by factors internal and external to the network (Monge & Contractor, 2003; Scott, 2000). Node properties can include physical properties like age, gender, profession; or network-related properties such as the number of linkages from other nodes or centrality in the network (Monge & Contractor, 2003). Dyad or relationship attributes can include symmetry (how reciprocal the relationship is), strength (the amount of time, emotional intensity, intimacy, or reciprocal services between two individuals), and frequency (how often the link occurs) (Monge & Contractor, 2003). Node properties and relationship properties can have an effect on one another, relationships and properties of other nodes, subgroups, and entire networks (Monge & Contractor, 2003; Scott, 2003).

The linkages between individuals or organizations within a network can be formed for several reasons (Monge & Contractor, 2003; Scott, 2000). Relationships between individuals may exist because of familial ties, geographical proximity, and/or for social support (Monge & Contractor, 2003; Scott, 2000). Another reason for the formation of relationships is the exchange of material or information resources (Monge & Contractor, 2003; Scott, 2000). The strength and duration of these ties are affected by whether the exchange of resources is mutual or reciprocal – a “you scratch my back, I

scratch yours” type of relationship in which resources flow both ways (Monge & Contractor, 2003). Often these types of relationships were formed because of geographical proximity (Monge & Contractor, 2003). However, exchange relationships are no longer bound by geography thanks to digital network media, which allow individuals to exchange information and physical goods without ever meeting face-to-face (Castells, 2013.)

The relationship between two individuals is affected by informal factors, such as the relationship each of those individuals has with others, according to Fritz Heider’s balance theory (Severin & Tankard, 2001; Monge & Contractor, 2003; Scott, 2000). For instance, if person A is a friend of person B and person C, but person B does not like person C, then it creates a psychological tension known as “dissonance” for person A (Severin & Tankard, 2001; Monge & Contractor, 2003). This tension causes person A to seek cognitive “balance,” (Severin & Tankard, 2001; Monge & Contractor, 2003), perhaps by de-friending one of the individuals or by seeking to resolve the matter between the two. Relationships are also affected by attribute similarity between individuals, such as age, education, profession, or political affiliation (Monge & Contractor, 2003). The concept that “birds of a feather flock together” is known as homophily, which states that the greater the degree of similarity between individuals in a network, the greater the chance there will be a relationship between those individuals (Monge & Contractor, 2003). Individuals tend to naturally seek out people who are like themselves because it helps reduce the likelihood of conflict and helps prevent an uncomfortable psychological state arising from emotional or cognitive inconsistency (Monge & Contractor, 2003), which will be discussed later in this paper. This tendency

toward maintaining group homophily has its drawbacks, as different ideas, beliefs, or challenging information tend to be restricted or suppressed (Granovetter, 1983).

Unless dealing with relatively small social networks, networks are considered “disconnected” in that not all nodes within the network link together directly or indirectly, leading to the formation of subgroups (Monge & Contractor, 2003). Within the greater social network structure, relationship influence factors lead some to form bonds with other members of the network and not others, or stronger bonds to some members of the network than others, creating subgroups known as components or cliques in which all members interact with one another (Monge & Contractor, 2003; Scott, 2000; Rogers, 2010; Zubcsek, Chowdhury, & Katona, 2014). Individuals belonging to a component or clique can belong to more than one component or clique at a time and can serve as a linkage between subgroups (Monge & Contractor, 2003; Scott, 2000; Rogers, 2010). At the community level, these subgroups can be seen in the form of families, church groups, workmates, or even a group of close school friends (Scott, 2000).

To navigate the myriad of different types of relationships in social networks, individuals must be able to interact and communicate with others in some way as part of the reciprocal flow of information between two or more individuals (Monge & Contractor, 2003). In interpersonal communication, interactivity is the basis of two-way conversation (Rafaeli & Sudweeks, 1997). When individuals have a shared interpretive context of what is being communicated, it allows for reactivity (both sides having the ability to offer feedback) and for messages to take into account and respond to the ways previous messages were reactive (Rafaeli & Sudweeks, 1997). However, when

individuals interact with each other, a number of self-image and social constructs may be at play. Individuals often tailor their self-presentation in social situations to fit both the context of the relationship and with whom they are interacting – using more formal or professional communication methods in a formal or professional situation and using casual or candid communication methods in more informal relationship situations (Goffman, 1959). Through the use of symbolic interaction via language, the written word, or other forms of communication, the individual communicating attempts – in association with those receiving the communication – not only to create or maintain the relationship, but also to uphold the image of themselves they hope to present to the receiver in that situation (Marwick & Boyd, 2010). While individuals' self-presentation may differ depending on whom they are communicating with and the context in which the communication occurs, the individual will habitually monitor how those they are communicating with respond to their self-presentation, and will often emphasize or de-emphasize certain things (Goffman, 1959; Marwick & Boyd, 2010). However, the individual walks a fine line in this endeavor. At least some level of self-disclosure – personal information revealed to another - is required for other members of a group to trust and accept an individual, and it is an important component in the formation and strengthening of personal relationships (Schwämmlein & Wodzicki, 2012). Self-disclosure is a requirement for how authentic group members perceive an individual to be (Marwick & Boyd, 2010). Authenticity is an important factor in how an individual is received by others – if others realize that an individual is trying to present an idealized version of himself or herself, that the self-presentation is wrong for the situation, or perceive that the individual is revealing too much or too little information about himself

or herself given the situation, they may feel that person is being inauthentic (Marwick & Boyd, 2010). However, the amount and types of self-disclosure that influence someone's perception of a person's authenticity can vary from situation to situation, so individuals must adjust how much information they reveal about themselves depending on the person they are interacting with, the social setting, and the way in which the interaction is occurring (Marwick & Boyd, 2010).

As with face-to-face interactions, the perception of authenticity fostered by self-disclosure is an important part of forming relationships in online social networks (Kaplan & Haenlein, 2010). Social media can allow users to offer a high degree of self-disclosure, since most pages are considered the user's "personal" page and allow the user to share some amount of information and updates about themselves with other members of the network (Kaplan & Haenlein, 2010). This personal information, or self-disclosure, offered by the individual allows other users in the network to form impressions about the individual's personal authenticity based upon that information (Marwick & Boyd, 2010).

Communication Flow Within Social Networks

The ties between members of subgroups within social networks tend to be strong ones, in that members all know one another, their contacts often overlap, and much of their communication is frequent, reciprocal, emotionally intense, and intimate in nature (Monge & Contractor, 2003; Scott, 2000; Granovetter, 1983; Fonti & Whitbred, 2011). In addition, the stronger the tie between two individuals, the greater the likelihood that those individuals share similar properties (Granovetter, 1983; Fonti & Whitbred, 2011). Coupled with the fact that many close-tie social groups tend to be homophilous in

nature, this overlapping network of communication within the group can cause the information that is exchanged to become stale, in that it has already been shared or is already known by most or all members of the group, given the properties of their communication linkages (Granovetter, 1983; Scott, 2000). To receive new information, group members can activate informal “weak ties” to individuals outside their close group (Granovetter, 1983; Scott, 2000; Rogers, 2010). Weak ties are characterized by being less frequent or intimate in nature, are informal in nature, and are often present between individuals who have relatively little homophily (Granovetter, 1983; Scott, 2000; Rogers, 2010; Fonti & Whitbred, 2011; Rogers, 2010). Communication between individuals who share a weak tie relationship can allow those individuals to serve as a conduit through which new information, innovations, and fresh ideas to flow into their own social network (Granovetter, 1983; Scott, 2000; Rogers, 2010; Monge & Contractor, 2003). The individual can then act upon the information, such as in cases where the information is about a job opportunity, or bring the information back to his or her close-tie group where it can be diffused throughout the group. This process is known as “contagion” (Granovetter, 1983; Rogers, 2010; Scott, 2000; Monge & Contractor, 2003; Burt, 1999). Just as a disease may diffuse throughout a population, information, ideas, or innovation can flow in a similar manner (Monge & Contractor, 2003). In the realm of social media, the idea that information spreads like a disease throughout a social network can be observed in the language used to describe stories that become popular within the network, often referred to as “going viral.” However, for the idea or information to take hold, it often must first go through a process that involves both group dynamics and individual cognition (Burt, 1999; Rogers, 2010).

While weak ties can be bridges for information and ideas to flow between social groups and networks, the influence exerted by strong-tie relationships can impact how and whether the information or idea is desirable, accepted, or adopted both for the group and the individual (Granovetter, 1983; Rogers, 2010; Lowrey & DeFleur, 1994). Groups and individuals use several factors to weigh information or an idea, and several theories capture these considerations and the reasons behind them. In a social system, an important consideration used to weigh new information or ideas is often whether the new information violates established beliefs or norms (Rogers, 2010; Granovetter, 1983; Lowrey & DeFleur, 1994). Individuals within a social group who do not conform to the group's norms are often perceived by other members to be deviants and hold little in the way of credibility or influence, while those members who do adhere to group norms often are considered more credible (Rogers, 2010; Lowrey & DeFleur, 1994). This is partially a function of a network condition known as structural equivalence that plays an important role in the contagion or spread of an idea or innovation (Burt, 1999). Structural equivalence between individuals means they have many of the same types of relationships with others in the network, such as two graduate students in the same field and with the same professors (Burt, 1999). Contagion by equivalence arises mainly out of competition, but this also includes individuals using others as a reference point to evaluate their own standing or adequacy within the network (Burt, 1999; Lowrey & DeFleur, 1994). The more similar the linkages to others that two individuals within a network have, the more likely one will adopt ideas or innovations possessed by the other that are perceived as advantageous within the network (Burt, 1999; Lowrey & DeFleur, 1994).

Opinion Leaders

While new ideas and information are spread through the strength of relationships (Rogers, 2010; Burt, 1999; Granovetter, 1983; Burt, 1999), they can also spread thanks to similar patterns of relationships (Burt, 1999). However, certain group members often possess a high degree of influence in the flow of information into groups. These individuals are known as “opinion leaders” (Rogers, 2010; Burt, 1999; Lazarsfeld, Berelson, & Gaudet, 1944; Katz & Lazarsfeld, 1955; Lowrey & DeFleur, 1994). Opinion leaders are informal leaders in that their influence does not stem from any formal title or position but through their competence and knowledge in certain areas, their social accessibility, and their adherence to established group norms (Rogers, 2010; Katz & Lazarsfeld, 1955; Lowrey & DeFleur, 1994). The influence of opinion leaders is often not consciously recognized by the opinion leader or the individual on the receiving end of their communication, and opinion leaders in one area are often not opinion leaders in others (Rogers, 2010). Journalists may not recognize the opinion leaders they encounter in the course of their work or who follow them on social media, just as opinion leaders who follow journalists may not recognize the important role they play in spreading information throughout their social network and those within the opinion leader’s network may not recognize them as shaping their opinions. The role of opinion leader is also not permanent. Individuals can lose their status as an opinion leader if they deviate too far or too often from group norms (Rogers, 2010). Although opinion leaders vary from topic to topic and from network to network, most have several things in common that give them a relatively high level of credibility within a group: a position in the life cycle that gives them greater degree of knowledge on a

subject than the average group member, a greater degree of mass media message consumption, a larger number of social contacts outside the group, a greater degree of innovation than other group members (Katz & Lazarsfeld, 1955; Katz, 1957; Lowrey & DeFleur, 1994; Rogers, 2010). Most importantly, an opinion leader's influence within a group rests upon the homogeneous properties they share with other primary group members (Katz & Lazarsfeld, 1955; Katz, 1957; Lowrey & DeFleur, 1994; Rogers, 2010). If he or she does not share the homogenous properties or attitudes the rest of the group views as important, it is less likely they will have a strong personal influence in the group and more likely that he or she will be considered an outsider or a non-conformist (Katz & Lazarsfeld, 1955; Katz, 1957; Lowrey & DeFleur, 1994; Rogers, 2010). In short, opinion leaders are defined by their "personification of certain values (who one is)," their "competence (what one knows)," and their "strategic social location (whom one knows)" both inside and outside the primary group (Katz, 1957, p. 69).

Although opinion leaders have "strong" relationship ties with other group members, mostly through similarities shared with other group members, they also have a higher than average number of "weak" relationship ties with individuals outside their social circle (Burt, 1999; Rogers, 2010). In other words, through their position with others both inside and outside their primary group, opinion leaders are able to serve as information brokers between groups (Burt, 1999). New information, ideas, or innovations can flow from one group to another, with the opinion leader serving as a bridge between the two groups (Burt, 1999; Rogers, 2010). Information passed to the opinion leader through his or her weak ties with members of outside groups can then be

brought back and transferred into the opinion leader's own social group because of his or her strong ties and influence within the group (Burt, 1999; Rogers, 2010).

The concept of opinion leaders first emerged from one of the earliest studies of mass media effects (Lazarsfeld, 1944). Paul F. Lazarsfeld and his team of researchers (1944) in their Erie County, Ohio, study of voters in the 1940 presidential election found that it was the opinion leaders who consumed the most amounts of mass media communication regarding the election, and these opinion leaders passed on that information to other group members through non-mediated interpersonal communication channels. They were individuals who were highly interested in the election, highly engaged with mass media coverage about the election, highly influential on specific topics within their social circles, and highly influenced by the agreeable mass media messages they exposed themselves to (Lazarsfeld, 1944; Katz & Lazarsfeld, 1955; Katz, 1957). In other words: "In comparison with the formal media of communication, personal relationships are potentially more influential for two reasons: their coverage is greater and they have certain psychological advantages over the formal media" (Lazarsfeld, et al., 1944, p. 150). This process was dubbed "Two-step flow" by the researchers (Lazarsfeld, 1944). In addition, Lazarsfeld, et al. (1944) found that opinion leaders directed some individuals to specific media content, such as a newspaper article or radio speech, strongly suggesting the individuals' consumption of the media content was the result of the power of personal influence.

In the Internet age, this same phenomenon can be witnessed in mediated social networks. The most influential users of social media tend to express a sense of community, reinforcing other group members' sense of belonging (Quercia, et al.,

2011). These influential users are also more active than other users in communicating and directly interacting with members of their network, meaning they are able to maintain and solidify their connection linkages within the network, giving them a higher profile among the group (Dubois & Gaffney, 2014; Dong & Zhang, 2008). In addition to higher-than-average quantity of messages, online social network opinion leaders also have a higher degree of quality in their interactions with other in-group members (Grabowicz, Ramasco, Moro, Pujol, Eguiluz, 2012) by fostering a sense of community (Quercia, et al., 2011), putting significant effort into replying and responding to other users (Cha, et al., 2010), and using language that reflects a degree of self-disclosure beyond profile information, such as updates about what they are doing (Quercia, et al., 2011). By doing this, some online social network opinion leaders are perceived by other group members as more authentic and thereby gain influence and credibility within the network (Marwick & Boyd, 2010).

Similar to face-to-face social networks, opinion leaders in a mediated environment also vary from topic to topic (Dong & Zhang, 2008), uphold group norms by applying social support or social pressure to other group members, and are not considered to be among “elite” users such as journalists or politicians (Dubois & Gaffney, 2014). Moreover, mediated social network opinion leaders maintain linkages between their own group and disparate groups, and introduce a high degree of new information obtained from outside groups into their own close group (Grabowicz, et al., 2012). This inter-group flow of information facilitated by opinion leaders is accomplished through the sharing of links to online news articles, podcasts, or blog posts (Dubois & Gaffney, 2014). By sharing media with their followers, opinion leaders

in most cases are lending the credibility they have with their own social network to the source of information, and directing followers to that source.

The Mediated Social Network

Throughout most of human history, social networks have been developed and maintained mostly through face-to-face interactions (van Dijk, 2005). However, advances in technology within the past few decades have allowed for the creation of mediated social networks – “a group of Internet-based applications that build on the ideological and technical foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (Kaplan & Haenlein, 2010, p. 61). There are numerous social media platforms on the Internet, each with its own qualities and levels of interaction among users (Kaplan & Haenlein, 2010; Boyd & Ellison, 2008). The rise of these online virtual communities has caused scholars to rethink how they define what a community actually is (Haythornthwaite & Kendall, 2010). These virtual communities – defined by geographically dispersed individuals who come together online to exchange information, ideas, and advice (Chan & Li, 2010; Chen & Hung, 2010) – reflect many of the non-mediated social communication theories and concepts that were developed prior to the Internet (Dubois & Gaffney, 2014; Guoqiang, Lockee, & Cuiqing, 2013; Tu, 2001). Many of the same factors discussed earlier that cause individuals to join offline social networks – exchange of resources, socialization, homogeneity – are also the reasons people join particular online social networks (Lee & Ma, 2012; Chen & Hung, 2010). For the most part, the more sociable a person is, the more likely that person is to use the Internet and to benefit from both offline and online sociability (Castells, 2013). Also, as information and communication technologies

became more advanced and allowed access to become easier and more personalized, these technologies have become more integrated into individuals' everyday lives (Haythornthwaite & Kendall, 2010). As information has become more abundant (Gade & Lowrey, 2011), individuals have simultaneously been given more power through this technology to select what media they are exposed to.

Computer-mediated communication, unlike other forms of mediated communication, allows for a high degree of interaction outside geographical or temporal bounds (Rafaeli & Sudweeks, 1997), and social media allow individuals to interact in ways that build and maintain a range of network relationship ties that go from strong to weak (Grabowicz, et al., 2012). Interaction helps build familiarity and trust among members of online communities (Haythornthwaite & Kendall, 2010) and, along with knowledge, experience, and number of followers, is an important factor in the emergence of opinion leaders in online social networks (Cha, et al., 2010; Dubois & Gaffney, 2014; Quercia, et al., 2011). Many of the influential opinion leaders on social media did not become influential randomly – rather they rose to prominence because they frequently engaged and interacted in the mediated network by creating and responding to content in the network (Cha, et al., 2010; Quercia, et al., 2011).

Scholarly research has yielded strong evidence that the power of personal influence and group communication can manifest itself in online social media networks (Meng, Wei, & Zhu, 2011; Quercia, Ellis, Capra, & Crowcroft, 2011; Kaplan & Haenlein, 2010; Cha, Haddadi, Benevenuto, & Gummadi, 2010; Meraz & Papacharissi, 2013; Song, 2013; Marwick & Boyd, 2010; Boyd & Ellison, 2008). To a large degree, communication between individuals through social media platforms not only reinforces

existing offline social networks (Boyd & Ellison, 2008), but also resembles “communication between individuals embedded in offline social networks” (Quercia, et al., 2011, p. 7) and serves as a means for individuals to connect with others whom they otherwise would not connect with offline (Boyd & Ellison, 2008). The model of propagation of information throughout social networks, such as microblogging sites (e.g., Twitter) that allow users to send short messages to and share links with a network of other connected users, also closely resembles contagion and diffusion of innovations models in non-mediated social networks, spreading through opinion leaders into various subgroups in the larger network of users (Song, 2013; Cha, et al., 2010; Dong & Zhang, 2008; Dubois & Gaffney, 2014; Meng, et al., 2011). The sharing of news in online social networks is often the result of a user seeking to socialize, maintain social status, and seek information (Weeks & Holbert, 2013).

When individuals use a particular form of media, they are usually motivated by need-fulfillment or gratification-seeking (Lee & Ma, 2012). These gratifications include information seeking (marking something for future retrieval), status attainment (getting attention), socializing, or entertainment (Lee & Ma, 2012). The participatory nature of social media sets it apart from other forms of media, in that it is the audience choosing and distributing news, rather than passively receiving news selected by an editor and distributed directly from a news outlet (Lee & Ma, 2012). Social media users can also actively participate in the agenda-setting process that was once the near-exclusive domain of the mass news media by discussing, adding to, and sharing news content (Lee & Ma, 2012). The two most salient factors determining individuals’ news-sharing habits on social media platforms are whether the individual has done so in the past

(making them more confident in doing so) and the need for socialization – the feeling of being connected to the greater online community through their contribution (Lee & Ma, 2012). Status seeking – which helps to boost one’s credibility and self-esteem – was also found to be a motivating factor for those who regularly share news on social media (Lee & Ma, 2012). The nature of those who share news on social media points toward an active audience that chooses media that best meets individual wants and needs (Lee & Ma, 2012), as well as one influenced by the interpersonal concepts at work in offline social networks. One of the most popular social media platforms is the microblogging site Twitter, a free social media application created in 2006 that is now one of the fastest-growing social media sites on the Internet with more than 320 million active monthly users worldwide (Twitter, 2016). Since its founding, the site has played a major role in public discourse – from breaking news to aiding revolutions (Hermida, 2010). Twitter allows users to create a semi-public profile and craft messages that are at most 140 characters known as “tweets.” Users can subscribe to tweets from other users by “following” them and a user’s popularity is often determined by how many followers he or she has (Cha, et al., 2010; Lasorsa, et al., 2012; Marwick & Boyd, 2010). Users interact with one another through “mentions” (including the user name of another individual in a tweet), “replies” (including the user name of another individual at the beginning of a tweet), and “retweets” (forwarding another user’s tweet on to one’s own followers) (Cha, et al., 2010; Lasorsa, et al., 2012; Marwick & Boyd, 2010). Through retweets, one can also track the flow of information through the social network (Cha, et al., 2010).

Journalism and Social Media

News organizations and journalists have taken notice of Twitter's wide social network, and now use it as one method to disseminate their stories, cover events in real-time, collaborate with other users, and bring audiences back to the news outlet's web site (Farhi, 2009; Weeks & Holbert, 2013; Hermida, 2010; Hong, 2012). The use of Twitter is mandatory in some newsrooms (Holton & Molyneux, 2015; Hermida, 2013). Thanks to its immediacy, utility, and convenience, Twitter has become an integrated part of journalistic routines in newsrooms around the world, and new job titles, such as the social media editor, have helped solidify its place as an important part of the newsgathering, creation, and dissemination processes (Hermida, 2013). As an indication of how the social media platform has become interwoven with newsrooms, Twitter released a best practices guide for journalists and newsrooms in 2011 (Hermida, 2013). For news organizations large and small, social media outlets offer a wide array of opportunities to engage with and build digital audiences. For the larger metro news outlet, social media outlets make the brand omnipresent and give a global reach, and for the smaller news outlets social media platforms allow for the building of more effective personal and intimate relationships with audiences (Picard, 2009). Largely, journalists who are active on Twitter have normalized its use into their professional routines and brought many existing journalistic values to the platform, using it to gather information and sources, report news, and drive traffic to their employer's websites (Hermida, 2013). The platform also allows journalists to "develop a different type of relationship than the arms-length connection that traditional mass communication created" (Picard, 2009, p. 11).

News outlets and journalists generally have a higher number of followers than the average Twitter user (Weeks & Holbert, 2013; Cha, et al., 2010), and are more likely to be retweeted than other users (An, Cha, Gummadi, & Crowcroft, 2011). A majority of journalists across the world have a Twitter account – 59 percent in 2013 (Stadd, 2013). The top 100 major newspapers in the United States have at least one Twitter account (Ju, Jeong, & Chyi, 2013). Two of the four overarching reasons people use Twitter (daily chatter, conversation, information sharing and news reporting) are directly relevant to journalism (Hermida, 2010). However, it appears that many news outlets and journalists use their Twitter account more in line with a “mass” model of communication. While Twitter offers the ability to communicate back and forth, most official news outlet accounts only send messages one way (Hermida, 2013). In 2011, a Pew Research Center study found that 93 percent of news outlets’ main Twitter accounts linked back to the outlets’ homepages, only 2 percent sought feedback or information from readers, and 1 percent were retweets from Twitter accounts outside the organization (Holcomb, Gross, & Mitchell, 2011). The study also found that individual journalists at those news outlets also rarely solicited feedback from readers (Holcomb, et al., 2011).

The widespread use of Twitter in newsrooms is having an impact on traditional journalism values and routines (Hermida, 2013; Singer, 2011; Hermida, 2010). It is the multi-faceted and fragmented nature of Twitter as a social network, and journalists’ and news organizations’ attempts to adapt to this new information-sharing environment that is driving many of these changes in traditional journalism values (Hermida, 2010). The

long held journalistic values of objectivity, news framing, and playing the role of gatekeeper, as well as

journalistic routines such as verification, story placement, and heavy reliance on official sources for information are all being challenged by the new networked form of mediated communication (Hermida, 2013; Singer, 2011; Hermida, 2010; Robinson, 2007). Many of these traditional values and routines that have been the basis for the press's power as an institution of democracy are now evolving (Robinson, 2007). In addition, fewer available resources combined with the additional responsibilities of maintaining a social media presence have put strain on journalists to do traditional reporting and keep up with vital journalistic routines (Mitchelstein & Boczkowski, 2009). News cycles, news gathering, verification, and the speed at which news is required to be produced and disseminated have all been affected by the rise of the Internet and social media, essentially requiring journalists to do more with less while maintaining quality levels of journalism (Mitchelstein & Boczkowski, 2009). These pressures, in addition to the networked environment, are some of the forces driving the evolution in journalism values and routines.

The most widely retweeted news stories often have a tone of authenticity with an urgent, emotional, critical, sarcastic or humorous voice, in contrast to the top stories offered on media outlet websites (An, Cha, Gummadi, & Crowcroft, 2011). While the most retweeted stories may not reflect what the news outlets consider the most important stories, they do reflect news values of timeliness, conflict, human elements, and novelty. This difference in what readers are more likely to retweet and what news outlets present as the most important news of the day is because of the “social filter”

through which news items are passed along in online social networks (An, et al., 2011). By using social media, individuals no longer need to seek news through traditional forms of news media. Rather, news can be filtered through other members of the social network and tailored to meet their personal interests or beliefs. Many of those active on social media don't seek out news because they feel the news will come to them through the people and sources they deem trustworthy, such as friends or personal contacts within their social network (Skoler, 2009). This social filter through which information passes is unconstrained by the traditional journalistic values and news judgment that have a tendency to place greater emphasis on public policy and objective reporting. Using a social filter rather than a journalistic-values filter in social media frees users to put greater emphasis on stories that would be considered of lesser importance by many professional journalists (Skoler, 2009; An, et al., 2011). So, while trust and credibility remain important to both journalism and within social networks, each side seems to perceive those things in different ways.

Today, people expect to share information, not be fed it. They expect to be listened to when they have knowledge and raise questions. They want news that connects with their lives and interests. They want control over their information. And they want connection – they give their trust to those they engage with – people who talk with them, listen and maintain a relationship. (Skoler, 2009, p. 39)

Similarly, the cultivation of trust in social networks plays a large role in an opinion leader's status within groups. Within a social network, trust rests upon the perceived authenticity of an individual (Marwick & Boyd, 2010). Authenticity is built through group social bonds formed through self-disclosure, offering meaningful interactions, and being accessible to others (Marwick & Boyd, 2010). Some individuals are able to gain a higher degree of trust within the network because they are able to

strengthen these bonds by demonstrating certain individual characteristics such as topic experience and knowledge, holding a large number of ties with members of other groups, and embodying certain traits shared among members of the network (Schwämmlein & Wodzicki, 2012; Rogers, 2010; Katz & Lazarsfeld, 1955; Dubois & Gaffney, 2014; Marwick & Boyd, 2010; Lowrey & DeFleur, 1994). These characteristics and actions allow other users to connect to the individual in ways that are difficult to achieve through faceless corporate Twitter accounts that have little or no social group ties (Dubois & Gaffney, 2014; Marwick & Boyd, 2010).

Within these mediated social networks, trust is built through different ways than the traditional media approach of credibility building through employing traditional journalistic ethical values, such as authoritative sourcing, verification, and objectivity (Singer, 2011). While these values remain important to journalists and do still earn some level of credibility within social networks, they alone are not as powerful in building audience trust as they once were (Singer, 2011). The fundamental change in the relationship between the news producers and the audience brought about by the Internet has created the need to rethink the role of news producers (Singer, 2011).

There is resistance to this idea. Many journalists and media outlets are loathe to turn over their long-held role as information gatekeeper, as the information provided by news producers has traditionally been verified as true and comes mostly from credible, official sources of information (Hermida, 2013). Thanks to past competitive practices and news producers' legacy of being one of the few means through which to communicate to large-scale audiences, as well as the vast amount of unfiltered,

unofficial, and unverified information on Twitter and the Internet in general, many journalists are loathe to change how they interact with audiences (Hermida, 2013).

Yet, there are signs that some news producers have begun looking for ways to adapt. Some experts have recommended that journalists and media outlets use social media in a way that lend the power of their position – and applies their journalistic values to – content created by others (Singer, 2011; Hermida, 2013; Lasorsa, et al., 2012). On social media platforms such as Twitter, these experts say, news outlets and journalists should engage their audiences in a more collaborative relationship that allows the journalist or news outlet to act as a sort of amplifier for information of interest to their audiences by passing along content created by other users, rather than passing along only content that they themselves created (Singer, 2011; Hermida, 2013; Lasorsa, et al., 2012). This approach to social media redefines the role of news producer from one of gatekeeper to that of the more audience-collaborative “gatewatcher” (Singer, 2011). In the gatewatcher role, the news producer uses her news judgment and journalistic values to pass on newsworthy information from her network (Singer, 2011; Hermida, 2013). In this way, the journalist or news company (which is still able to provide its own original content) has the ability to blend its often-higher profile position in the social network with its journalistic values, acting as a conduit through which accurate, timely, and relevant information flows.

Sometimes the audience can even be engaged to assist in verification and contextualization of information provided by journalists, thus collaborating with them in the journalistic process (Singer, 2011; Hermida, 2013). Other times, the journalist or news outlet can provide the audience with information behind the story, such as how it

was conceived, what data were used, or admitting and correcting mistakes (Singer, 2011; Hermida, 2013). By doing this, the journalist or news company is essentially throwing open the doors of the journalistic process to the general public, and thereby showing the audience why it should be trusted (Singer, 2011; Lasorsa, et al., 2012). This form of professional authenticity used to build trust is known as transparency (Singer, 2011; Lasorsa, et al., 2012). Many journalists believe that the crisis of credibility faced by the news media would be at least partially fixed by offering transparency in their work (Robinson, 2007).

With the proliferation of online social networks, transparency has become an important part of the adaptation process for legacy media (Singer, 2011). The Society of Professional Journalists (2014) has even recently adopted journalistic transparency as one of journalism's core values. Despite this, there may be a gap in what journalists say they believe will help build credibility with audiences and what many of them actually do to remedy the issue. Most elite journalists with high numbers of followers have been found not to engage in transparency- or accountability-related activities on Twitter. Many less-prominent journalists do by including in tweets information about their jobs, engaging in discussions with and answering questions from other Twitter users by replying to them, including personal information in tweets, and linking to external sites to provide a source for their original tweet (Hermida, 2013; Lasorsa, et al., 2012). So while some high-profile journalists who work for more prestigious news outlets, such as the New York Times, CNN, or NPR, may have a ready-made following thanks to their legacy media career, many less prominent journalists are using transparency – along

with audience interaction and self-disclosure – to build their following and influence (Hermida, 2013; Lasorsa, et al., 2012).

Not only are there influence differences based on the prestige of a legacy news outlet, there might also be differences between journalists and institutional media outlets in how they use Twitter and other social media. Journalists appear more likely than their institutional media outlet employers to express opinion on the social media platform, and often include personal information in their tweets (Hermida, 2013; Meraz & Papacharissi, 2013). This self-disclosure has, in some cases, allowed journalists on Twitter to have greater influence in framing issues and news than the news outlets that employ them (Meraz & Papacharissi, 2013; Hermida, 2013). The social nature of Twitter has the effect of blurring the lines between journalists' private and professional lives, and a journalist's activity on Twitter is more a portrayal of a personal, rather than institutional, brand (Hermida, 2013). It is the personal, human voice used by individual journalists, rather than the voice of authority often used by media institutions that allows the individual journalist to convey his personality through his messages on Twitter, and such activity is often rewarded by the audience (Hermida, 2013). Individual social media editors and journalists are also more likely to interact with other social media users from their non-institutional accounts, include humor or personal information in their messages, and emphasize frames of news stories that are less likely to be present in traditional media (Wasike, 2013). This may be having an effect on whom the audience turns to for information, as research has shown that audiences prefer to follow individual rather than institutional accounts (Hermida, 2013). Some news organizations have realized this, and in an effort to help promote their corporate brand

have begun requiring their journalists to include company logos or information on their personal social media profile and abide by strict social media rules that govern the amount of personal information they disclose, dictating how they can interact with other users, or prohibiting them from linking to competing media sites (Holton & Molyneux, 2015). These rules, while grounded in traditional journalistic norms, have not gone over well with many journalists (Holton & Molyneux, 2015), and could work against a form of media that is based on the principles of social group dynamics, is collaborative in effort, and is organic in structure.

Hypotheses and Research Questions

As the above literature has shown, the rise of new forms of communication over the Internet has caused disruption both in the business model, influence, and production of news by mass media, as well as changes to traditional journalism values and norms, aided by a crisis of confidence in traditional news media (Gade & Lowrey, 2011, Skoler, 2009; Kovach & Rosenstiel, 2010). To remain relevant and leverage network opportunities, news media outlets and journalists must now find new ways to connect with their audiences and bring them into the news production and dissemination process (Skoler, 2009; Dimmick, et al., 2011). As part of the effort to promote their personal and organizational brands, journalists and news outlets have taken to social media outlets such as Twitter to engage with the audiences (Holton & Molyneux, 2015; Skoler, 2009; Dimmick, et al., 2011). But to what extent do journalists and news organizations apply the network and social media concepts in their use of Twitter? While dissemination of their news products through tweeting and linking to breaking news, news updates, live-tweeting events and engaging in transparency are among the

core services journalists and news outlets provide for audiences, they also use the platform to promote their products and brands, interact with other users, and provide personal information (Holton & Molyneux, 2015; Hermida, 2010; Lasorsa, et al., 2012; Hermida, 2013; Meraz & Papacharissi, 2013; Strupp, 2009). However, there is evidence that institutional journalists and individual journalists use Twitter in different ways (Meraz & Papacharissi, 2013). Therefore:

- RQ1: Is there a significant difference between the types of message elements present in individual journalists' and institutional accounts' tweets?

As part of the effort to address credibility issues faced by the news media, journalists, institutional media outlets, and journalism organizations have all stressed the need for transparency in their work (Buttry, 2014; Singer, 2011; Lasorsa, et al., 2012). However, studies of the issue have found evidence that only a small number of journalists and media outlets may actually engage in transparency (Lasorsa, et al., 2012; Hermida, 2013). The Society of Professional Journalists (2014) states that transparency occurs when journalists explain ethical choices and the news reporting process to audiences, encourage civil dialogue about journalism practices and content, acknowledge mistakes quickly and explain corrections clearly, expose unethical journalism behavior, and respond quickly to questions of accuracy, clarity, and fairness. Twitter, with its capabilities to have back-and-forth conversations, would seem like an excellent venue to engage in transparency. But does this actually happen? If so, how often does it happen? To find out, the following research question is posed:

- RQ2: To what extent do news organizations and journalists use Twitter to offer elements of transparency in their work?

Evidence suggests that social media may share many of the same concepts and dynamics as social networks that are not online (Dubois & Gaffney, 2014; Dong & Zhang, 2008). Self-disclosure - providing personal information about one's self or one's opinion – is thought to be one of those concepts shared by online and face-to-face social networks (Kaplan & Haenlein, 2010). It has also been shown to be an important factor in how influential one is in social media (Quercia, et al., 2011). Twitter, being a social media platform that offers individuals the ability to maintain existing social ties and form new ones, also offers them the chance to provide personal information about themselves or share opinions. Although the extent is not well understood, some studies have found evidence that individual journalists might be more apt to offer information about themselves, their thoughts, and their opinions on Twitter than the news organizations they work for (Hermida, 2013; Meraz & Papacharissi, 2013). While journalists might be more likely to use their Twitter account for posts that are personal in nature, offering personal information or opinion to the public goes against traditional journalistic values and practices (Hermida, 2010). Official news organization Twitter accounts, therefore, possibly do not offer this level of self-disclosure, since they are considered the official brand of the institution, face tighter traditional journalistic constraints in the content they post, and are – by their nature – less “personal” (Hermida, 2013; Meraz & Papacharissi, 2013).

Previous studies on the Twitter content of news organizations and journalists have found at least three types of common message elements present in their tweets: news, promotion, and soliciting interaction from other users (North, et al., 2014). For the purposes of this study, it is necessary to search for two more types of message

elements within the tweets of journalists and news organizations: self-disclosure and transparency.

By comparing the occurrence of self-disclosure elements in tweets by journalists and news organizations, it will be possible to determine whether and to what extent they differ in the amount of self-disclosure offered. Therefore, the following hypothesis is offered:

- H1: Individual journalists are more likely to include self-disclosure elements in their tweets than institutional media Twitter accounts.

The message elements present in the tweets of individual journalists and institutional news outlets could also have an effect on how “viral” their messages become and how they are propagated throughout the social network through retweeting, since individuals within a social network value certain communication features over others (Marwick & Boyd, 2010). To test what message elements audiences respond to most, the following research question is posed:

- RQ3: Is there a significant difference between the message elements present in individual journalists’ and institutional accounts’ retweeted messages?

Social media allow for an array of interactions and message types by users. Previous research has found that quality interaction – fostering a sense of community and putting significant effort into replying and responding to other users - is an important component in building influence on social media (Grabowicz, et al., 2012; Quercia, et al., 2011; Cha, et al., 2010).

In the past decade, institutional media outlets have pushed for their journalists to sign up for social media platforms as part of their journalistic work (Holton & Molyneux, 2015). While traditional journalism values have required journalists to keep an arms-length relationship with readers and sources in the past, the changing nature of media and the nature of social media have created conflict between these traditional values and the nature of the medium (Hermida, 2013; Picard, 2009, Meraz & Papacharissi, 2013). To determine whether journalists and news organizations are using interaction to gain influence and extend their reach on social media, and the quality of those interactions, the following research question is posed:

- RQ4: How and to what extent do news organizations and journalists utilize interactivity through Twitter?

The Internet has not only caused changes in the field of journalism but also in how society communicates, as mediated networked communication has entered the marketplace (Gade, 2011; Dimmick, et al., 2011; Singer, 2011; Lowrey & Gade, 2011). No longer are audiences passive receptors of news but an active part of the fragmented and niche media landscape (Lee & Ma, 2012; Kovach & Rosenstiel, 2010). The new avenues of communication opened by the Internet operate off long-established interpersonal communication concepts that bind social networks of individuals together (Meng, Wei, & Zhu, 2011; Quercia, Ellis, Capra, & Crowcroft, 2011; Kaplan & Haenlein, 2010; Cha, Haddadi, Benevenuto, & Gummadi, 2010; Song, 2013; Marwick & Boyd, 2010; Boyd & Ellison, 2008). It is the human qualities of social interaction between individuals both within and outside these close social groups that form the basis for trust, and whether information transmitted from one person to another is

shared with others (Rogers, 2010; Katz & Lazarsfeld, 1955; Dubois & Gaffney, 2014; Marwick & Boyd, 2010; Lowrey & DeFleur, 1994). In the past, traditional journalism values, practices, and the nature of the medium through which news was delivered kept interaction with audience members to a minimum (Strupp, 2009; Lasorsa, et al., 2012; Picard, 2009; Tsfati, 2010). However, because of the human qualities that bind social networks together, and given the more formal, impersonal nature of mass media institutions, could journalists be more adept at interacting with audiences than their media company employers? To test this, the following hypothesis is offered:

- H2: Individual journalists on Twitter are more likely to interact with other users than institutional media Twitter accounts.

If journalists and news organizations are adapting to this new medium by interacting with their audiences, does it make a difference in how many people in the social network follow them for news? In addition, does interaction with the audience make a difference in how widely their messages are spread in the social network? On Twitter, interaction comes through mentions, replies, and retweets, (Holcomb, et al., 2011; Hermida, 2013). Using these indicators, it is possible to answer the following two-part research questions:

- RQ5: a) Is there a relationship between journalists' level of interaction with other Twitter users and the journalist's number of followers?
b) Is there a relationship between journalists' level of interaction with other Twitter users and how often the journalists are retweeted?

Just as journalists and news outlets in the past have kept an arm's length relationship with their audiences (Tsfati, 2010), traditional journalistic values and

practices have also mostly constrained them from presenting information about themselves or their personal opinions to the audience (Hermida, 2013; Singer, 2011; Hermida, 2010). However, information about one's self is an important element of building authenticity and trust in social networks such as Twitter (Marwick & Boyd, 2010). With journalists and news organizations taking to social media, have they attempted to build trust within the social network by adopting a more conversational tone in which personal information and opinions sometimes appear? If so, does the use of self-disclosure lead to a greater degree of popularity evidenced by higher number of followers? In addition, does the presence of self-disclosure in journalist or news organization tweets lead to their content being spread further throughout the social network? To find answers, the following two-part research question is posed:

- RQ6: a) Is there a relationship between how often journalists include self-disclosure elements in their tweets and their number of followers?
b) Is there a relationship between how often journalists include self-disclosure elements in their tweets and how often the journalists are retweeted?

Although close social groups are often homogeneous and thus are often closed to receiving or accepting new information or ideas, opinion leaders are capable of introducing new information into the group, allowing it to flow more frequently and prominently within the group (Monge & Contractor, 2003; Granovetter, 1983; Katz & Lazarsfeld, 1955; Dubois & Gaffney, 2014). Because these same interpersonal relationship concepts can be applied to mediated social networks, it follows that if journalists and news outlets can connect to these online opinion leaders through

interacting with them, there may be a greater chance of their product being more widely distributed through those opinion leaders' social networks. To determine whether this is the case, the following research question is offered:

- RQ7: Do higher levels of interaction by a journalist with an opinion leader on Twitter lead to a higher likelihood of the opinion leader retweeting the journalist?

Social networks on the Internet share many of the concepts associated with offline social networks, including the importance of interaction, the homogeneity of social groups, and the presence of opinion leaders (Dubois & Gaffney, 2014; Guoqiang, Lockee, & Cuiqing, 2013; Tu, 2001). Opinion leaders have been shown, both in online and offline social networks, to be key influencers and brokers of information from one social group to another (Marwick & Boyd, 2010). The opinion leaders' abundant weak-tie relationships with other individuals give them a greater degree of access to information from outside their close social group (Marwick & Boyd, 2010; Monge & Contractor, 2003; Granovetter, 1983; Katz & Lazarsfeld, 1955). Once the information has been relayed to opinion leaders, they may choose to pass it on to those in their close social group. When opinion leaders share information on a topic on which they are trusted, that information will often be shared by others and spread throughout the network (Monge & Contractor, 2003; Granovetter, 1983). Therefore, the following hypothesis is offered:

- H3: A tweet by a journalist or news organization that is retweeted by an opinion leader will receive a greater number of retweets than those not retweeted by an opinion leader.

Chapter 3: Methods

To determine whether journalists and news organizations are using a “mass” model of communication on social media or whether they are utilizing social network concepts to further their influence and reach, it will be necessary to actually determine what they are saying to whom on Twitter. To test the hypotheses and research questions, this study will utilize a content analysis approach by examining the Twitter feeds and followers of both institutional media outlets and individual journalists.

Population and Sample

In order to obtain samples for this study, a two-stage sampling technique was used by first identifying Oklahoma newspapers that had an active Twitter account, and then by identifying the journalists with an active Twitter accounts who work for those newspapers. The first sampling stage was conducted by drawing from the population of all daily newspapers in Oklahoma with active Twitter accounts. Restricting the population to Oklahoma-based newspapers allowed for more convenient and accurate sampling of the population. Familiarity with the news outlets and journalists in Oklahoma also allowed for a more thorough vetting of journalists to include in the sample, as there were several who had not updated their Twitter profile to reflect that they had moved to work for another publication or left the industry entirely.

From the population of newspapers, only those that showed a moderate level of activity – 25 or more tweets within the period of one week – and that had journalists with an active Twitter accounts – were included in the sample.

The second sampling stage drew from the journalists who identified themselves as reporters working for the newspapers included the first sample. To identify these

journalists, a Twitter search was performed using FollowerWonk's profile search tool. FollowerWonk, a Twitter analytics website on which user profiles and activity can be analyzed and compared, provides a search engine that allows for keyword searches of Twitter user profiles to be conducted. The name and Twitter handle of each newspaper in the sample were entered as keywords into the FollowerWonk Twitter profile search engine. Newspaper employees who identified themselves as sports reporters, editors, photographers, columnists, critics, and copy editors were excluded from the sampled population.

Of the 37 daily newspapers in Oklahoma listed as members of the Oklahoma Press Association, 28 had Twitter accounts. Of those, a preliminary examination of Twitter accounts to gauge the amount of data that would be generated showed 14 had at least a moderate level of activity consisting of 25 or more tweets during the week of Feb. 8 through Feb. 14, 2015. The sample was further narrowed after FollowerWonk Twitter profile searches of each newspaper name and Twitter handle revealed that 10 newspapers had a total of 40 self-identified journalists who had an active Twitter account and met the sampling criteria that excluded sports reporters, editors, photographers, columnists, and critics. The 40 journalists identified in the FollowerWonk searches who worked for the 10 newspapers selected for the sample constitute the sample of individual journalists against which the 10 newspapers were compared. During the study design's preliminary one-week (Feb. 8 to Feb. 14, 2014) examination of Twitter activity among these organizations and journalists, 950 tweets were issued by the 10 newspapers in the sample, while 1,948 tweets were issued by the 40 journalists. This preliminary sample of data was deemed sufficient for the purposes

of this study and guided the establishment of a one-week time frame from which Twitter content was collected.

Tweets were collected for one week, March 15 to March 21, 2015, for each of the users in the sample in order to keep the amount of data at a manageable level while also ensuring there was enough data to get a representative sample of tweets. The 10 newspapers generated a total of 770 tweets, and the 40 journalists generated a total of 1,364 tweets, for a total of 2,134 tweets in the initial sample. Since the total number of tweets was so high, it was necessary to perform random sampling in order to analyze their content. For tweets by newspapers, random sampling was conducted on those with more than 50 tweets in order to bring their total number of tweets to around 50 per newspaper. For example, if a newspaper issued only 10 tweets, all of those tweets were included in the sample, but if a newspaper issued 175 tweets, a random sample was conducted to include only 50 of that newspaper's tweets in the sample. The 1,364 tweets by individual journalists were also randomly sampled. A majority of the tweets were issued by a relatively small number of journalists who were highly active. Therefore, in order to lower the sample size to a manageable level while ensuring that less active journalists were included in the sample, the journalists in the sample were divided into two groups – those who were highly active and those who were less active. To determine who was highly active and who was less active, the mean number of tweets issued by all journalists was calculated. Those falling above the mean (40 tweets during the week) were placed in the highly-active group and those below were placed in the less active group. Next, to ensure that journalists from both groups were included in the sample, one out of every three tweets by journalists with higher activity levels were

randomly sampled while one of every two tweets by journalists with lower activity levels were randomly sampled. This sampling method left a pool of 928 tweets – 412 from the 10 newspapers and 516 from the 40 journalists – on which content analysis was performed.

The total number of account lifetime tweets, total number of followers, total number of other users followed, opinion leaders present among followers, and whether an employment relationship existed with other users in the sample were recorded for each Twitter account, as well as total number of tweets issued during the sample period. Tweets from the news organization and the individual journalists were collected by entering the user names into NodeXL's Twitter User Network function and importing the results into a spreadsheet. In addition, NodeXL's Twitter User Network import function captured retweets, mentions, and replies by the journalist or news outlet, as well as the Twitter user names of those the journalist or news outlet interacted with. In addition, the content of each tweet was retrieved by NodeXL and coded based on message type.

Content Measures

This study seeks to understand how Oklahoma newspapers and the journalists they employ communicate and interact through Twitter and how they might differ. To do so, the study identifies and categorizes certain content elements that would be present in the sample's tweets using categories similar to those used by North, et al. (2014) and adding a "self-disclosure" category. The study then analyzes whether the presence of these message elements differ between news organization and individual journalist Twitter accounts.

The following content element categories were measured: news, self-disclosure, promotional, solicitation of interactivity, and transparency. The category of news included tweets that contained elements of breaking news, news updates, links to news stories and live-tweeting events. The category of self-disclosure included original tweets and retweets containing personal ideas, thoughts, or opinions or personal information. The category of promotional elements consisted of language within tweets that mentioned affiliated journalists and news outlets in a promotional manner, spoke of awards or honors earned by the newspaper or journalist, provided programming and scheduling information, or had commands to others to visit a news website, follow an affiliated Twitter account or other social media account, and/or subscribe to the newspaper. The category of solicitation of interactivity included tweets that contained language asking for reader feedback, seeking sources, asking for assistance with data analysis or interpretation, or requesting images from readers. Finally, the category of transparency included tweets with language explaining ethical journalistic choices or the news creation process, encouraging civil dialogue about journalism practices or content, acknowledging a mistake and correcting it, responding to questions of accuracy or clarity or fairness, or exposing unethical journalistic behavior (see Figure 1: Twitter Message Elements).

Figure 1: Twitter Message Elements



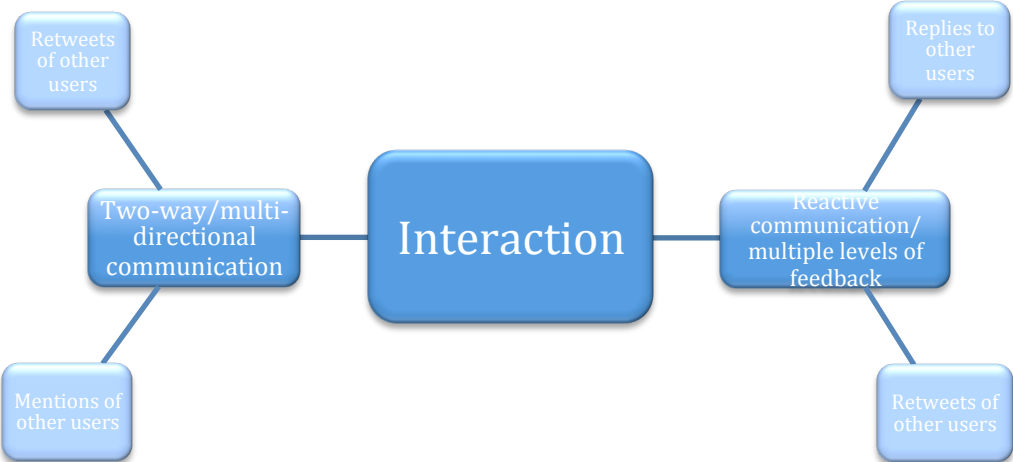
In addition to categorizing message elements present in tweets to understand what types of content journalists and newspapers are communicating, the study also seeks to better understand how other users react to the presence of certain elements. Two of the above message elements are related to building trust/credibility within social groups: self-disclosure and transparency (see Figure 2: Social Network Communication). Another important part of building authenticity and trust is interaction

with other members of the greater social network (see Figure 2: Social Network Communication). To measure interaction by news outlets and journalists, the following measurements were recorded for each user:

Interaction

To determine interaction by the newspapers and journalists with other Twitter users, three measurements were used: number of retweets by the newspapers and journalists of other users’ messages, the number of times other users were mentioned by newspapers and journalists, and the numbers of replies to other users. Retweets send another user’s message to one’s own followers, while mentioning another user in a message makes them part of the communication, and replying is direct feedback to another user. In all of the above cases, the user is alerted by Twitter that the interaction has occurred (see Figure 2: Interaction).

Figure 2: Interaction



To calculate interaction by journalists and news outlets, an algorithm was applied that set the total number of ways to interact (retweet, mention, reply) as a numerator, and divided it by the user's total number of tweets during the sample period.

Or:

$$X = \frac{\text{Retweets} + \text{mentions} + \text{replies}}{\text{Total original tweets} + \text{total retweets} + \text{total replies}}$$

Using logic of this algorithm, the greater the value of X, the greater the amount of interaction by the journalist or news outlet.

To measure the impact interaction and self-disclosure may have on how many individuals look to the newspaper or journalist for information, the number of Twitter followers for each newspaper and journalist was recorded. To measure the impact that interaction may have had on how far a message by a newspaper or journalist travelled through the social network, the number of times a tweet by a newspaper or journalist was subsequently retweeted by non-journalist followers was recorded..

Since this study seeks to better understand how journalists and newspapers interact with other Twitter users outside their close – or “strong tie” social network and thus reach out to their audiences, relationship data for each newspaper and journalist was also recorded in the database. This relationship data showed whether journalists shared an employer (the newspaper) and which newspaper each journalist worked for. Using this information, it was possible to flag retweets, mentions, or replies between employees of the same newspaper, retweets or mentions of newspapers the journalists worked for, or retweets or mentions by newspaper accounts of journalists they employed. By flagging these tweets, it was possible to determine each journalist's and

newspaper's "non-affiliated" interaction levels - interactions with other Twitter users outside their close social media network.

Opinion Leaders

Opinion leaders play an important role in this study. In order to find potential opinion leaders among the tens of thousands of users following the journalists and newspapers in the sample, two steps were applied to narrow the scope of non-journalism followers who could be considered opinion leaders:

- Identify those who are the most active on Twitter through number of tweets.
- Identify those who have more users who follow them than users they follow.

NodeXL automatically limits the number of followers that can be pulled per-user to their most recent 2,000 followers, so the number of news outlets' and journalists' followers for which data could be obtained and to which the steps were applied was automatically limited to at most 2,000.

Opinion leaders are generally considered more active communicators than their non-opinion leader counterparts, meaning they are more likely to have a higher number of lifetime tweets than non-opinion leaders. Preliminary examinations of the lifetime tweets of news outlet and journalist followers showed the activity of users followed a power law distribution, rather than a normal distribution. The preliminary examinations revealed a heavy negative skew in the distribution of tweets, with the majority of tweets coming from a minority of users. This is similar to the findings of a recent study of the distribution of social network ties showing that, out of the millions of users who edit Wikipedia, only 5 percent of users contribute to 80 percent of the site's content (Muchnik, Pei, Parra, Reis, Andrade Jr., Havlin, & Makse, 2013). Since opinion leaders

are characterized in part by a high degree of communication activity, the followers who have an above-average number of lifetime tweets (which would indicate above average levels of communication) were included in the next step to identify potential opinion leaders.

Power law distributions are common in social networks, yet an individual's number of followers or links within a network is often positively related to how active that person is within the network (Muchnik, et al., 2013). In order to further pare down the potential opinion leaders among journalist and news outlet followers, a second step was taken. From the followers with above-average numbers of tweets, users who have a higher than average followers/followed ratio were included as possible opinion leaders. Opinion leaders are looked to for guidance from others, making it more likely that a greater number of individuals would seek out their communication than they would seek others' communication, thus giving them a higher in-degree than out-degree. After excluding news outlets from the sample of potential opinion leaders, the list of individuals scoring above average values after applying the equation were categorized as "opinion leaders." In sum, a total of 1,261 individuals fell into this category out of a total 34,222 followers in the sample. The median number of opinion leaders among journalists' followers was 18, and the mean number of all followers sampled was 402. Those considered opinion leaders among journalist and newspaper Twitter followers ranged between 1 and 9 percent of total followers, depending on the Twitter account.

Taking these steps using the data available allowed for the identification of the most active and most followed relative to following – both good indicators of influence and opinion leadership. The users determined to be opinion leaders were recorded, and

any interactions between the opinion leader and a journalist or news outlet in the sample were flagged. Finally, to offer a more detailed look at the effects of self-disclosure and interaction, and the role of opinion leaders in mediated social networks, the number of followers who were opinion leaders for each user in the sample was also included, as well as the number of times each tweet in the sample was subsequently retweeted by an opinion leader.

Chapter 4: Results

This section is organized by first presenting descriptive statistics on the characteristics of the journalist and newspaper Twitter activity, including types of interactions, interactions with opinion leaders, the presence of content elements, and content elements present in retweets by other users. The research questions and hypotheses are then addressed, presented with tables showing statistical and test data.

The data gathered for this study had the following characteristics (see Table 1):

Table 1: Twitter Characteristics & Interactions			
	Newspapers (n = 10)	Journalists (n = 40)	Totals (n = 50)
All tweets	412	516	928
Non-interactive original tweets	316 (76.7%)	169 (32.8%)	485 (52.3%)
Average tweets per account per week	41.2	12.9	18.56
Total Interaction tweets	96 (23.3%)	348 (67.4%)	444 (47.8%)
Original tweets that received a retweet	120	72	192
Number of times retweeted	270	195	465

Newspapers were far more active on Twitter than individual journalists – with the exception of a very small number of journalists whose activity exceeded that of even the most actively tweeting news organization. Of the 928 tweets in the sample, 412 were from newspaper accounts and 516 were from journalist accounts. However, because there were only 10 newspapers in the sample compared to 40 journalists, the results show that on average newspaper Twitter feeds were more active than journalist accounts, with an average of 41.2 tweets during the week for newspapers compared to an average of 10.5 tweets by journalists. Of the total number of tweets in the sample,

316 newspaper tweets and 169 journalist tweets were originally composed messages that did not interact with other users. A total of 96 newspaper tweets and 348 journalist tweets were categorized as interactive. In total, 48 percent of the tweets in the sample featured some type of interaction with other users.

Research Question 1 asked whether there is a significant difference between the types of message elements present in individual journalists' and institutional accounts' tweets. These message elements include informational, self-disclosure, promotional, and solicitations of interactivity elements. To answer this, a Chi Square test was run to determine whether there were differences between the newspapers and journalists.

	Newspapers	Journalists	Totals
Tweets	412	516	928
Total elements present	507	671	1178
News	340 (82.5%)	258 (50%)	598 (64.4%)
Transparency	2 (0.5%)	15 (2.9%)	17 (1.8%)
Self-disclosure	61 (14.8%)	271 (52.5%)	332 (35.8%)
Promotional	76 (18.5%)	86 (16.7%)	162 (17.5%)
Solicitation for interaction	28 (6.8%)	41 (7.9%)	69 (7.4%)
$\chi^2 = 136.905$ $df = 5$ $p < .001^{**}$ (<i>**significant</i>)			

The results showed significant differences in the types of elements presented by newspaper Twitter accounts compared to individual journalists' Twitter accounts ($\chi^2 = 136.905$, $p < .001$). Newspaper tweets were significantly more likely than individual journalists' tweets to contain an element of news. As seen in Table 2, only half of individual journalists' tweets contained news elements, compared to more than 82 percent for newspapers. Furthermore, more than half of tweets by individual journalists contained elements of self-disclosure, compared to less than 15 percent for newspapers.

Journalists were also more likely to include elements of transparency in their tweets than newspaper Twitter accounts. However, both individual journalists and newspapers offered very few elements of transparency, which made up 0.5 percent of elements present in newspapers tweets and slightly less than 3 percent of elements present in journalists' tweets. Both newspapers and journalists promoted their material and requested audience interaction at similar rates, as shown in Table 2.

Research Question 2 asked to what extent journalists use Twitter to offer elements of transparency in their work. Transparency was defined as language explaining ethical journalistic choices or the news creation process, encouraging civil dialogue about journalism practices or content, acknowledging a mistake and correcting it, responding to questions of accuracy or clarity or fairness, or exposing unethical journalistic behavior. Coding for elements of transparency present in tweets was performed and the proportion of tweets containing transparency elements was compared to the prevalence of all other message elements within the sampled tweets. This data can be seen in Table 2, which shows that journalists offered elements of transparency in only 2.9 percent of their tweets (15 out of 517 total tweets) while transparency elements were present in only .05 percent of newspaper tweets (2 out of 412 tweets).

Hypothesis 1 predicted that individual journalist Twitter accounts were more likely than newspaper accounts to include of self-disclosure elements in their tweets. To test Hypothesis 1, the prevalence of self-disclosure elements in the tweets of the 40 journalists was compared with the prevalence of self-disclosure elements in the tweets of the 10 newspapers using a Chi Square test. As seen in Table 3, the difference

between the two groups proved to be statistically significant ($\chi^2 = 141.235$; $p < .001$), consistent with the prediction of Hypothesis 1.

Table 3: Self-Disclosure of Newspapers and Journalists			
	Newspapers	Journalists	Totals
Tweets without self-disclosure	351 (85.2%)	246 (47.6%)	597 (64.3%)
Tweets with self-disclosure	61 (14.8%)	271 (52.4%)	332 (35.7%)
Totals	412	517	929
$\chi^2 = 141.235$ $df = 2$ $p < .001$			

The results for Hypothesis 1 showed that journalists were significantly more likely to include elements of self-disclosure in their tweets than newspapers. Self-disclosure was defined as language in original tweets and retweets that contained personal ideas, thoughts, or opinions or personal information. For example, a journalist tweeting about their experience while shopping at a department store would be considered self-disclosure. For a newspaper, tweeting information about what is going on in the newsroom or tweeting about an editorial would be considered self-disclosure. Table 3 shows that while around 15 percent of newspaper tweets contained elements of self-disclosure, more than half of journalist tweets (52.4 percent) included self-disclosure.

Research Question 3 shifted focus to retweets, and asked whether there is a significant difference between the message elements present in individual journalists' and institutional accounts' retweeted messages. To answer this question, message elements present only in the tweets that were subsequently retweeted were examined using Chi-Square tests (see Table 4). The results for Research Question 3 show that

significant differences existed in the elements present between journalists' and newspapers' tweets that were retweeted by other users ($\chi^2 = 96.803$; $p < .001$).

Table 4: Retweeted Content Elements			
	Newspapers	Journalists	Totals
Tweets retweeted	120	72	192
Number of times retweeted	270	195	465
News	241 (89.3%)	110 (56.4%)	351 (75.5%)
Transparency	0 (0%)	26 (13.3%)	26 (5.6%)
Self-disclosure	41 (15.2%)	94 (48.2%)	135 (29%)
Promotional	46 (17%)	52 (26.7%)	98 (21.1%)
Interactivity solicitation	8 (3%)	16 (8.2%)	24 (5.2%)
$\chi^2 = 96.803$ $df = 5$ $p < .001^{**}$ (**significant)			

Since more than one message element may have been present in a single tweet, the percentages in Table 4 do not add up to 100 percent.

For newspapers, tweets containing elements of news made up nearly 90 percent of all retweets they received. For journalists, more than half of their total retweets contained news elements, but this was followed closely by elements of self-disclosure. In addition, journalist tweets that contained promotional elements were retweeted nearly 10 percentage points higher (26.7 percent) than newspaper tweets with promotional elements (17 percent). Despite making up barely 3 percent of their messages, tweets with elements of transparency accounted for more than 13 percent of the retweets journalists received.

Research Question 4 asked how and to what extent journalists and news organizations utilized interactivity through Twitter. To answer this question, each measure of interaction – retweets, replies, and mentions – from the 10 newspapers and 40 journalists were compiled. Each measure was then broken out into affiliated (those

who are employees, employers, or colleagues with the user they are interacting with) interactions and non-affiliated interactions. This yielded the data in Table 5 below.

Table 5: Types of Interactions			
	Newspapers	Journalists	Totals
All interactions	96 (100%)	348 (100%)	444 (100%)
-Replies	15 (15.6%)	76 (21.8%)	91 (20.5%)
-Mentions	36 (37.5%)	64 (18.4%)	100 (22.5%)
-Retweets	45 (46.9%)	208 (59.7%)	253 (57%)
$\chi^2 = 15.813$ $df = 2$ $p < .001^{**}$ (**significant)			
Types of Interactions – Minus Affiliated Users			
Non-affiliated interactions	36 (100%)	270 (100%)	306 (100%)
-Replies	5 (13.9%)	69 (25.6%)	74 (24.2%)
-Mentions	16 (44.4%)	42 (15.6%)	58 (19%)
-Retweets	15 (41.7%)	159 (58.9%)	174 (56.9%)
$\chi^2 = 17.431$ $df = 2$ $p < .001^{**}$ (**significant)			

As seen in Table 5, journalists were far more interactive with other non-affiliated users than newspapers. Nearly two-thirds of newspaper interactions were with users they were affiliated with, leaving only 36 interactions with non-affiliated users during the week. Journalists on the other had had more than 77 percent (270 of 348) of their interactions with non-affiliated users.

The results show that newspapers seldom reply to user tweets. Journalists do this, but not that often. As seen in Table 5, 86 percent of newspaper interactions were mentions or retweets. Moreover, most newspaper interactions were mentions or retweets of journalists and other Twitter accounts associated with the news organization.

However, nearly 60 percent of those non-affiliated journalist interactions were retweets of other users, a quarter were replies, and about 16 percent were mentions. For newspapers, the majority of their interactions were mentions of other users, followed

closely by retweets. Replies made up around 13 percent of newspaper non-affiliated interactions.

Hypothesis 2 predicted that journalists would be more likely to interact with other users than newspapers on Twitter. To test Hypothesis 2, the number of interactions by the 40 journalists and 10 newspapers was divided by the total number of tweets issued by each, providing an interaction ratio for each newspaper and journalist. The mean interaction ratios for each group were then compared using an independent samples t-test. The statistical results, provided in Table 6, revealed a significant difference between journalists and newspapers in this regard ($t = -3.198, p < .05$), confirming Hypothesis 2. This means that journalists were more likely than newspapers to interact with other Twitter users.

Table 6 shows 43 percent of all journalist tweets involved interaction with other users, compared to 11 percent of newspaper tweets.

Table 6: Interaction Ratios		
	Newspapers (n = 10)	Journalists (n = 40)
Interaction ratio mean	.11063	.42704
$t = -3.198 \quad df = 48 \quad p = .002$		

Research Question 5 asked two related questions based on the same independent variable – whether there is a relationship between the level of journalist interaction with other Twitter users and (a) the journalist’s number of followers, and (b) how often the journalist is retweeted by other users. Interaction levels were determined by the sum of each account's retweets of other users, plus their replies to other users, plus their mentions of other users divided by their total number of tweets in the sample period. In

order to answer Research Question 5(a), a Pearson correlation was performed on journalist interaction ratios and their number of followers. For research question 4 (b), a Pearson correlation was performed on journalist interaction ratios and the number of times they were retweeted.

The results for Research Question 5(a), showed a non-significant level of correlation between how often journalists interacted with other unrelated users and the number of followers the journalist had ($r = .159, p > .05$). Journalists averaged a little more than 977 followers and interacted with non-affiliated users in about 43 percent of their tweets.

The results for Research Question 5(b) showed an even weaker correlation than that of the previous part of this research question. The results showed no significant correlation between how often a journalist interacted with non-affiliated users and how often that journalist was retweeted ($r = .063, p > .05$).

Research Question 6 also asked two questions based on the same independent variable. The first question, 6(a), asked whether there was a relationship between how often journalists include self-disclosure content in their tweets and the number of followers they have. The second question, 6(b), asked whether there is a relationship between how often journalists include self-disclosure elements in tweets and how often they are retweeted by other unaffiliated users. Self-disclosure was one of the message elements that were coded for in the sampled tweets. In order to answer research question 6(a), a Pearson correlation was performed between the number of self-disclosure elements offered by each journalist and their number of followers. For research question 6(b), a Pearson correlation was performed on the number of self-

disclosure elements journalists offered and the number of times they were retweeted.

The data showed journalists offered an average of seven elements of self-disclosure in their tweets during the week.

The results for Research Question 6(a) showed a strong, statistically significant relationship between how often journalists offered elements of self-disclosure in their tweets and how many non-affiliated followers they had ($r = .757, p < .001$). The relationship between the two variables was not only strong, but showed a positive correlation between the two, meaning the more a journalist provided personal information about themselves, their thoughts, or their opinions, the greater the number of other users who followed them. Conversely, the less a journalist offered elements of self-disclosure, the fewer people who followed them.

The results Research Question 6(b) showed an even stronger statistically significant correlation between the variables than those found in Research Question 6(a). The tests conducted showed a very strong, positive correlation between how often journalists include elements of self-disclosure in their tweets and how often those journalists were retweeted by non-affiliated users ($r = .809, p < .001$). The results show that the more journalists told other users about themselves or their thoughts and opinions, the greater the likelihood that they would be retweeted by other users. Conversely, the less often journalists told others about themselves, the fewer times they were retweeted by others.

The final research question and hypothesis considered the importance of opinion leaders. Research Question 7 looked at whether higher levels of interaction by a journalist with a non-affiliated opinion leader would lead to a greater likelihood that the

opinion leader would retweet the journalist. To answer this question, the level of interaction (retweets, replies, mentions) by a journalist with opinion leaders was recorded, as well as any retweets of the journalist by an opinion leader. A Pearson correlation was performed on the number of opinion leader interactions and opinion leader retweets.

More than 22 percent of all journalist interactions were with non-affiliated opinion leaders (22.2 percent), and those opinion leaders retweeted journalists on average 1.18 times during the week. The rate of interactions by journalists with opinion leaders showed a significant correlation with how likely opinion leaders were to retweet the journalist ($r = .376, p < .05$). The results show that the more frequently that the journalists interacted with opinion leaders, the higher the likelihood the opinion leader would retweet a journalist's message. Conversely, the journalists who interacted less frequently with opinion leaders would be retweeted by opinion leaders less frequently.

Hypothesis 3 predicted that a message published by a journalist or media outlet retweeted by an opinion leader would result in a greater number of subsequent retweets of that message by non-opinion leaders. By looking at each journalist and news outlet tweet that was subsequently retweeted, it was possible to record who retweeted that message and whether that person was one of the opinion leaders determined earlier. The mean number of retweets a message received after being retweeted by an opinion leader and the mean number of retweets messages received that had not been retweeted by an opinion leader were compared using an independent samples t-test. The results supported Hypothesis 3 ($t = 4.383, p < .001$).

Table 7: Retweets With & Without Opinion Leaders		
	Tweets with an opinion leader retweet (n = 51)	Tweets without an opinion leader retweet (n =141)
Mean number of times retweeted	3.71**	1.96**
t = 4.383 df = 190 **p < .001		

Table 7 shows that, among the retweets of journalist and news organization messages, there were 141 retweets that did not include an opinion leader. There were 51 tweets that were retweeted by other users that included at least one opinion leader. The tweets that did not include an opinion leader retweet had a mean of 1.96 retweets. However, for those that did include an opinion leader among the retweets, the mean number of retweets received was 3.71.

The results show that tweets that received at least one opinion leader retweet received nearly twice the number of retweets those that did not receive an opinion leader retweet received.

In summary, the results confirmed Hypothesis 1, which predicted journalists were more likely than newspapers to offer self-disclosure. Hypothesis 2, also confirmed, showed journalists were more likely than newspapers to interact with other non-affiliated Twitter users, while the confirmation of Hypothesis 3 showed messages retweeted by opinion leaders received a significantly greater number of retweets than those not receiving an opinion leader retweet. In addition, Research Question 1 showed there are significant differences between journalists and newspapers in terms of the content they tweet, while Research Question 2 showed that both journalists and newspapers offered little in the way of transparency on Twitter. The results of Research

Question 3 showed that there were significant differences between journalists and newspapers in terms of what content elements were present in their retweeted messages, while Research Question 4 provided data for what types of interaction were present in the tweets of newspapers and journalists. Research Question 5(a) and (b) showed no correlation between interaction and the number of journalist followers or retweets. However, for Research Question 6(a) and (b) there was a statistically significant correlation between self-disclosure and number of followers and retweets, while Research Question 7 found that higher levels of interaction by a journalist with opinion leaders led to a greater likelihood that opinion leaders would retweet the journalist and vice-versa.

Chapter 5: Discussion

The Internet has allowed individuals to forgo using traditional news media for information. Now, people use media in ways that are unique to their individual needs. Media became fragmented, mobile, and networked (Gade & Lowrey, 2011; Dimmick, et al., 2011; Lee & Ma, 2012; Picard, 2009). They are also social. Individuals can now use media to maintain and extend their social relationships via social media (Kaplan & Haenlein, 2010). News and information are increasingly filtered through individuals' social networks, which are often homogenous and can become echo chambers of opinion and ideas (Lowrey & DeFleur, 1994; Rogers, 2010). Yet, the health of a society based on democratic values relies upon an informed and engaged citizenry. For centuries, it has been the goal of journalism in democratic nations to provide citizens with the information they need to make informed decisions (Kovach & Rosenstiel, 2010). Faced with a crisis of legitimacy, a great deal of uncertainty in the news industry has pushed legacy media companies and journalists to attempt to adapt to the new networked society by attempting to reach out to audiences on the Internet and social media (Lowrey & Gade, 2011; Lasorsa, et al., 2012). Yet, even these attempts have created uncertainty. The nature of social media has posed challenges to traditional journalistic values, and media companies in some cases have clashed with journalists over social media policy (Holton & Molyneux, 2015).

This study was undertaken to better understand how media companies and journalists use social media, whether their use of social media has strategic elements to it, how journalistic values may have shifted in this environment, and what interpersonal communication concepts are at work in mediated social networks. To accomplish this,

journalists and media companies using the popular social media platform Twitter were selected and monitored to analyze what types of content, interactions, self-disclosure, and journalism values were present.

The results of Research Question 1 provided evidence that journalists and newspapers varied widely in terms of what types of message elements they communicated on Twitter. The results also show that newspapers rarely ventured out of offering only news on Twitter, while journalists' tweets were more varied in content. The data also showed that journalists included elements of self-disclosure in more than half of their tweets, compared to only 9 percent of newspaper tweets.

The difference between how often journalists and newspapers offered elements of self-disclosure was confirmed by the results for Hypothesis 1. These findings provide evidence that journalists are less guarded than newspapers about publicly sharing opinions, personal experiences, and information about themselves (Meraz & Papacharissi, 2013; Hermida, 2013; Hermida, 2010; Lasorsa, et al., 2012). However, while there were only a few instances, the results showed that newspapers, rather than offering purely objective messages, did include some degree self-disclosure, although this was often in the form of opinion pieces or editorials and almost never coupled with news elements.

Meanwhile, the results of Research Question 3 showed how other users reacted to the presence of each content element within journalist and newspaper tweets. The percentage of content elements present in the tweets that were retweeted by others mostly aligned with how often they actually appeared in tweets by newspapers and journalists. For instance, self-disclosure elements were present in journalist tweets 53

percent of the time, while being present in 48 percent of the tweets retweeted by others. These results indicate that Twitter users might expect different things from journalists and institutional media organizations. Audiences on social media appear to be comfortable with a formalized, traditional form of news communication by faceless journalism institutions, but are also comfortable with the informal and humanized communication offered by individual journalists. However, more research in this area would be required before confidently stating that is the case. Certainly, however, the findings of this study indicate that audiences are not turned off by the presence of self-disclosure in tweets by journalists. In fact, the opposite is supported by the results of this study. Research Question 6a) and 6b) showed that more frequent offerings of self-disclosure by journalists correlated strongly with higher numbers of users who followed them. Even stronger was the correlation between prevalence of self-disclosure and number of retweets. In general, the more elements of self-disclosure journalists included in their tweets the greater the number of times their content was retweeted by other users. The lower the level of self-disclosure they offered, the less likely people were to retweet them.

Moving on to interactions on Twitter, the results of Research Question 4 showed that newspapers had very low levels of interaction with non-affiliated users, while journalists had relatively high levels of interaction. Journalists had nearly eight times as many interactions as newspapers. However, a majority of those journalist interactions consisted of retweets of other users' content.

Hypothesis 2 showed that journalists were significantly more likely to interact with other non-affiliated users than newspapers. The majority of journalist interactions were

retweets of non-affiliated user content, but also included replying to and mentioning other users as well. Around 43 percent of all tweets by journalists were interactions with non-affiliated users, compared to 11 percent for newspapers. These findings add to previous findings that journalists, when they are active, are more adept than institutional media at using the multi-directional power of social media to communicate (Meraz & Papacharissi, 2013; Hermida, 2013; Hermida, 2010; Lasorsa, et al., 2012; Strupp, 2009).

Yet, as shown in Research Question 5, higher levels of interaction didn't necessarily equate to a higher number of followers or retweets for the journalists. While the lack of statistically significant findings do not necessarily mean that there is no connection, it does suggest that the role of interaction on social media appears to be more complex than simply "more total interactions equals more total retweets from others."

The majority of interactions by journalists were retweets of other users, rather than mentions or replies, and while retweeting a user is a form of interaction, it is a form of interaction that is less personal than replying to or mentioning another user. Retweeting an individual takes only moments, while replying to or mentioning them is a more personal interaction, and possibly could be considered a more "quality" interaction. As discussed earlier, those holding significant influence in online social networks have a higher degree of quality in their interactions with others (Grabowicz, et al., 2012). These individuals have been found to put a higher degree of effort into replying and responding to other users (Cha, et al., 2010), in addition to providing self-disclosure that goes beyond their profile information (Quercia, et al., 2011). Since

retweeting an individual takes barely any effort, the data in this study suggest it might fall short of what could be considered “quality” interaction. Using retweets as a form of interaction on par with replies and mentions may be a shortcoming of this study. By treating retweets equally to mentions and replies in the algorithm used calculate the ratio showing interaction level, and because the vast majority of the interactions of journalists were retweets, the actual level of high-quality interactions and their effects was likely obscured. However, though this is a shortcoming for this study, it provides an intriguing question for future researchers to explore.

The influential role of an opinion leader in a social network has been well established. As a way to gage the effect of interaction on opinion leaders, Research Question 7 asked whether there was a correlation between the number of retweets by opinion leaders and the number of interactions by a journalist separately. The results showed the two were positively correlated at a statistically significant level. Thus, interaction with opinion leaders results in a greater chance that the opinion leader will retweet the journalist. This is important in gaining influence on social media because, as shown in the results, when opinion leaders retweet a message, an average of twice as many people will retweet the message (3.71) than when an opinion leader does not retweet (1.96).

The results of Hypothesis 3 showed that messages that received a retweet from an opinion leader spread further throughout the network than if an opinion leader did not retweet the message. Tweets that were retweeted by an opinion leader on average received double the amount of total retweets compared to those that did not. These findings are consistent with the powerful roles opinion leaders play in non-mediated

social networks (Katz & Lazarsfeld, 1955; Katz, 1957; Lowrey & DeFleur, 1994; Rogers, 2010).

What does this mean for social media strategies for news producers? If one is looking to spread a message on social media, opinion leaders effectively act as a sort of force multiplier. For example, the average number of Twitter followers per-account is 208 (Beevolve, 2012). Thus, if a journalist's tweet is retweeted by a user who is not an opinion leader, that tweet will be retweeted an average of 1.96 times, reaching a potential audience of 772 additional Twitter users (assuming there are no users who follow both accounts). However, if the tweet is retweeted by an opinion leader, with an average retweet number of 3.71, that message would reach a potential audience of 2,361. This is not taking into account that opinion leaders have a higher than average number of followers when compared to other users, or the number of subsequent retweets by other users who retweet the message directly from the opinion leader's own Twitter account.

If interactions between journalists and opinion leaders do result in the opinion leader being more amenable to retweeting the journalist, then an opinion leader retweet can result in a cascade of retweets and the message being spread further throughout the network. Journalists looking to extend their reach on social media should work to identify opinion leaders within the network and interact with those opinion leaders. Understanding the importance and function of opinion leaders in online social networks will require journalists to learn new skills, specifically related to how information flows through social networks. Using methods similar to those in this study to identify opinion leaders – those who are more active than average users and who have a higher than

average number of followers and are followed by more people than they follow – can help journalists identify potential opinion leaders.

Taken together, the results of this study show that social media truly are social. They rely on many of the same concepts that non-mediated social networks do (Cha, et al., 2010; Dubois & Gaffney, 2014; Quercia, et al., 2011). Just as in non-mediated social networks, opinion leaders are present in social media and serve as communication links between various sub-social networks within the larger network. These opinion leaders also have an outsized ability to spread information deeper into the various close-tie social networks when compared to other people. When journalists interacted more with those opinion leaders, opinion leaders were more likely to retweet them. Through opinion leaders, the journalist's original message was able to penetrate more deeply into the social networks.

Meanwhile, journalists interacted with others on a more frequent and more personal basis than their newspaper employers, personalizing themselves to their audiences. Twitter users reacted positively to a journalist telling people a little about himself or what he thinks about certain things by retweeting or following the journalist

This sort of personalization by journalists has been discouraged or banned by some media companies (Holton & Molyneux, 2015). The results of this study provide evidence that this may actually limit the reach journalists have on social media. Yet, many journalists are able to personalize themselves on Twitter. A little more than half of the public messages by journalists on social media offered some degree of information about themselves. For earlier generations of journalists, that would have likely been unthinkable. Those earlier generations were also doing journalism through

forms of media mostly capable of a one-way communication flow. Social media does not operate on this premise. Instead, it allows the public to provide a great deal of feedback. It also allows the public to create its own content, and with the vast amount of information out there, choose the messages that it wants to hear. Yet, there are ways to get one's message into these groups. Individuals who influence within the network serve as a conduit through which one is able to send her message. But in order to hold a greater degree of trust with these influential users (thus having a greater chance of one's message being spread further across the social communication network), it helps to have relationships with them based on trust, interactions, and the humanizing element of self-disclosure.

For some previous generations of journalists, this sort of behavior on a media platform would have been unthinkable. Many of the values that have guided journalists in the past remain relevant to providing accurate, timely, and unbiased information to the public. However, to effectively adapt to the new medium, traditional values must adapt as well (Singer, 2011). While the relationship between journalism values and self-disclosure in messages publicly offered by journalists has already been discussed, other findings by this study are relevant to this. Journalists who publicly express their own experiences, ideas, and even some degree of opinion, do not necessarily damage the brand of their employer, as has been feared by some managers (Holton & Molyneux, 2015). In fact, the opposite is true. Providing loose guidance and considerable freedom for journalists to build a social media audience using network (rather than mass) media concepts results in benefits for the news organization.

Although this study's treatment of retweets as being on par with replies and mentions in terms of meaningful interaction may have masked possible correlations between interaction and followers/retweets, the sheer number of retweets by journalists is an indicator of something else – a form of “gatewatching.” Gatewatching, as discussed in the literature review is proposed as a form of gatekeeping adapted to the online environment – a collaborative effort between news producer and audience in which the news producer acts as a conduit through which a user-generated message is spread to a larger audience (Singer, 2011; Hermida, 2013). The portion of the interactions falling under this category shows that not only have journalists been quicker to adopt a gatewatcher role than newspapers, but also that it dominates their interactions with others. Unlike newspapers, journalists do not limit themselves to retweeting only their or their employing news outlet's content. Instead, they retweet content from multiple sources, including competing news outlets and non-journalist generated content. They are finding interesting things in the social network and presenting them to their audience rather than placing an artificial limit on what they present. And while presenting those things may not always drive people to their company's website, it does mean that those interested in what the journalist passes along will look to them as a source of content in the future (Singer, 2011; Hermida, 2013).

Other recently introduced professional values have not been as readily adopted, however. The practice of journalistic transparency – defined as the explanation of ethical choices and the news reporting process, encouragement of conversations about process and content, acknowledgement and explanation of mistakes, exposure of

unethical behavior, and a quick response to questions of accuracy, fairness, and clarity (Society of Professional Journalists, 2014) – is often touted by journalists as a means to build credibility and better engage with digital audiences (Buttry, 2014; Singer, 2011; Lasorsa, et al., 2012). However, this does not appear to be happening. Similar to results of previous studies by Lasorsa, et al. (2012), and Hermida (2013) journalistic transparency was seriously lacking in this study’s sample groups. Newspapers only offered transparency elements in two of their 412 tweets, and out of the 516 tweets by journalists, elements of transparency were present on only 15 occasions. This provides further evidence that while the idea of journalistic transparency has been around for a few years now and is often praised by news producers, few actually engage in transparency on this social media platform.

This could prove to be a major missed opportunity, since evidence uncovered in this study suggests that journalistic transparency is something audiences respond to favorably. The results showed that although transparency elements were rarely offered, when they were offered, a cascade of retweets by other users would ensue. Tweets with transparency content were retweeted at a much higher rate than any other content element (see Table 2 and Table 4), suggesting that transparency can influence reach and social influence in the network. However, the small number of transparency elements present in this study means that further study would be required to better establish this relationship.

News outlets and journalists looking to shift their thinking from that associated with a one-way mass media communication model to that of a multi-modal network model should note the lack of transparency elements found in this study, as well as what

appears to be a desire for those elements by other Twitter users. However, in making this shift, they should also note the foundation for performing a “gatewatching” function is already in place.

Although news outlets and journalists must build credibility in the networked media environment to draw in more readers, the influence of those who already hold credibility with other network members – opinion leaders – are an important part of the social network communication process (Katz & Lazarsfeld, 1955; Katz, 1957; Lowrey & DeFleur, 1994; Rogers, 2010). This study has provided further evidence that the influence of opinion leaders extends from real-world person-to-person communication networks into the realm of online person-to-person social media networks (Song, 2013; Cha, et al., 2010; Dong & Zhang, 2008; Dubois & Gaffney, 2014; Meng, et al., 2011). It also shows that news producers should incorporate these individuals into their strategies for newsgathering, interaction, and to distribute content. No longer are the majority of individuals willing to go in search of news. They expect the news to be brought to them by people they trust and socialize with (Skoler, 2009).

Although this study has found support for the hypotheses and provided answers for most of the research questions, it also has its shortcomings and leaves some questions unanswered. The degree to which interaction and the offering of transparency elements affect a journalist’s or news outlet’s credibility remains unanswered and would require a user survey to properly gauge. In addition, the sample used was limited to Oklahoma-based journalists and newspaper Twitter accounts. While this may limit the generalizability of this study, the data do reflect the Twitter activity of a census of newspapers and their journalists most active on Twitter in the state of Oklahoma. Since

this study focuses exclusively on the use of Twitter, other popular social media sites such as Facebook, Pinterest, or Reddit, are not addressed. Because these sites are so different from Twitter, the measurements that were applied in this study may not be effective in those social media realms. Finally, television stations, radio stations, online news publications, and sports journalists were also excluded from the sample. Examining each of these, and the differences between them in how they use Twitter would likely be fertile ground for further study.

The results of this study have helped build on the understanding of how journalists operate within a mediated social network that is widely used for promotion and breaking news. While the results demonstrate the importance of news producers working toward active engagement with audiences, it also shows the relative dearth of engagement and transparency currently being offered. And while there is evidence that some journalistic values are evolving to fit the social media world, there is also evidence that some of the values journalists say are important are not being offered in a meaningful way.

Journalists and news organizations wanting to build a strong social media presence must consider the benefits of taking the conversation beyond the newsroom and their own professional networks and moving it to stakeholders and concerned citizens. Just as journalists and news organizations are required to know the communities they cover, they must similarly know their online communities. As shown by the study, news organizations have been poor exemplars of this by offering relatively few interactions with those outside their own professional network. Journalists do better at this, but they too missed many opportunities to expand their presence as well.

The shift from news organizations and journalists taking a mass media approach to a networked media approach to presenting news is still taking shape. News producers must come to the realization that news is now part of a discussion rather than a lecture. Information outlets are no longer bound by time, geography, or scarcity – all characteristics that mass media once depended on to retain audiences. Yet there is also great opportunity for transformation and success amid this sea change in media. It is the hope of the author that this study has demonstrated that this transformation is possible and given news producers a framework to better understand how to better utilize Twitter as a journalistic tool.

References

- An, J., Cha, M., Gummadi, K., Crowcroft, J. (2011). Media Landscape in Twitter: A world of new conventions and political diversity. Proceedings of the Fifth International Conference on Weblogs and Social Media. Association for the Advancement of Artificial Intelligence, 2011.
- Baran, S., & Davis, D. (2013). *Mass Communication Theory: Foundations, Ferment, and Future* (7th ed.). Stamford, CT. Cengage Learning.
- Beevolve (2012). An exhaustive study of Twitter users across the world. Published Oct. 10, 2012. Retrieved from: <http://www.beevolve.com/twitter-statistics/>
- Boyd, D.M., & Ellison, M.B. (2008). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13, p. 210-230.
- Burt, R. (1999). The Social Capital of Opinion Leaders. *Annals of the American Academy of Political and Social Science*, 566(Nov., 1999), p. 37-54.
- Buttry, S. (2014, September 14). New SPJ Code of Ethics: An improvement but a disappointment. The Buttry Diary. Retrieved from: <http://stevebuttry.wordpress.com/2014/09/08/new-spj-code-of-ethics-an-improvement-but-a-disappointment/>
- Castells, M. (2013). *Communication Power* (3rd ed.). Oxford University Press: New York.
- Cha, M., Haddadi, H., Benevenuto, F., & Gummadi, K. P. (2010, May). *Measuring user influence in Twitter: The million follower fallacy*. Proceedings of the Fourth International AAAI Conference on Weblogs and Social Media, Washington D.C.

- Chaffee, S. H., & Metzger, M. J. (2001). The end of mass communication? *Mass Communication & Society*, 4(4), p.365-379.
- Chan, K.W., & Li, S.Y. (2010). Understanding consumer-to-consumer interactions in virtual communities: The salience of reciprocity. *Journal of Business Research*, 63, p. 1033-1040.
- Chen, C. J., & Hung, S. W. (2010). To give or to receive? Factors influencing members' knowledge sharing and community promotion in professional virtual communities. *Information & Management*, 47, pp. 226–236.
- Clayfield, M. (2012). Tweet the Press. *Metro*, (173), p. 92.
- Del Campo-Avila, J., Moreno-Vergara, N., & Trella-Lopez, M. (2013). Bridging the gap between the least and the most influential Twitter users. *Procedia Computer Science*, 19, pp. 437-444.
- Dimmick, J.; Powers, A.; Mwangi, S.; & Stoycheff, E. (2011). The fragmenting mass media marketplace. In Lowrey, W., & Gade, P., (Eds.), p. 177-192, *Changing the News: The Forces Shaping Journalism in Uncertain Times* (1st ed.). Routledge: New York.
- Dong, D., & Zhang, X. (2008). Ways of Identifying the Opinion Leaders in Virtual Communities. *International Journal of Business and Management*, 3(7), p. 21-27.
- Dubois, E., & Gaffney, D. (2014). The multiple facets of influence: Identifying political influential and opinion leaders on Twitter. *American Behavioral Scientist*, 58(10), pp. 1260 – 1277.
- Farhi, P. (2009). The Twitter explosion. (2009). *American Journalism Review*.

- Featherstone, M. (2007). *Consumer Culture and Postmodernism*. London, SAGE Publications. Second edition.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, California. Stanford University Press.
- Fonti, F., & Whitbred, R. (2011). Where do weak ties come from? An empirical investigation of the antecedents of weak network ties. *Sinergie*, 86, pp. 93-111.
- Fox, S., & Rainie, L. (2014). The Web at 25 in the U.S. Pew Research Center Internet Project, Feb. 27, 2014.
- Gade, P. (2011). Postmodernism, uncertainty, and journalism. In Lowrey, W., & Gade, P., (Eds.), p. 63-82, *Changing the News: The Forces Shaping Journalism in Uncertain Times* (1st ed.). Routledge: New York.
- Gade, P., & Lowrey, W. (2011). Reshaping the journalistic culture. In Lowrey, W., & Gade, P., (Eds.), p. 22-42, *Changing the News: The Forces Shaping Journalism in Uncertain Times* (1st ed.). Routledge: New York.
- Goffman, E., (1959) *The Presentation of Self in Everyday Life*. Doubleday, Garden City, NY, 1959.
- Grabowicz, P.A., Ramasco, J.J., Moro, E., Pujol, J.M., Eguiluz, V.M. (2012). Social features of online networks: The strength of intermediary ties in online social media. *PLoS One*, 7(1), Jan. 11, 2012
- Granovetter, M. (1983). The Strength of Weak Ties: A Network Theory Revisited. *Sociological Theory*, 1, 201-233.
- Harms, J.B., & Dickens, D.R., (1996). Postmodern media studies: Analysis or symptom? *Critical Studies in Mass Communication*, Vol. 13 (1996), p. 210-227.

- Haythornthwaite, C., & Kendall, A. (2010). Internet and community. *American Behavioral Scientist*, 53(8), pp. 1083–1094.
- Hermida, A. (2013). #Journalism: Reconfiguring journalism research about Twitter, one tweet at a time. *Digital Journalism*, 1(3), p. 295-314.
- Hermida, A. (2010). Twittering the News. *Journalism Practice*, 4(3), 297-308.
- Himmelboim, I., McCreery, S., & Smith, M. (2013). Birds of a feather tweet together: Integrating network and content analyses to examine cross-ideology exposure on Twitter. *Journal of Computer-Mediated Communication*, 18, pp. 154-174.
- Holcomb, J., Gross, K., & Mitchell, A. (2011). How Mainstream Media Outlets Use Twitter. Pew Research Center. Nov. 14, 2011. Retrieved from:
<http://www.journalism.org/2011/11/14/how-mainstream-media-outlets-use-twitter/>
- Hong, S. (2012). Online news on Twitter: Newspapers' social media adoption and their online readership. *Information Economics and Policy*, 24, p. 69-74.
- Holton, A.E., & Molyneux, L. (2015). Identity lost? The personal impact of brand journalism. *Journalism*, Nov. 3, 2015, p. 1-16.
- Ju, A.; Jeong, S.H.; & Chyi, H.I. (2013). Will social media save newspapers? *Journalism Practice*, April 30, 2013.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), p. 59-68.
- Katz, E., Lazarsfeld, P.F. (1955). Personal Influence: The part played by people in the flow of mass communication. The Free Press of Glencoe, Glencoe, Ill., 1955.

- Katz, E. (1957). The Two-Step Flow of Communication: An up-to-date report on an hypothesis. *Political Opinion Quarterly*, 21(1), p. 61-78.
- Katz, E. (1987). Communications research since Lazarsfeld. *Annenberg School for Communication Departmental Papers*.
- Katz, N., Lazer, D., Arrow, H., & Contractor, N. (2004). Network theory and small groups. *Small Group Research*, 35(3), p. 307-332.
- Kovach, B., & Rosenstiel, T. (2010). *Blur: How to Know What's True in the Age of Information Overload*. (1st ed.). New York, New York: Bloomsbury USA.
- Lasorsa, D. L., Lewis, S. C., & Holton, A. E. (2012). Normalizing Twitter journalism practice in an emerging communication space. (2011). *Journalism Studies*, 13(1), p.19-36.
- Lazarsfeld, P., Berelson, B., & Gaudet, H. (1944). *The People's Choice*. New York, NY: Duell, Sloan and Pearce.
- Lee, C.S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior*, 28 (2012), p. 331-339.
- Loke, J. (2012). Old turf, new neighbors: Journalists' perspectives on their new shared space. *Journalism Practice*, 6(2) p. 233-249.
- Lowrey, S., & DeFleur, M. L. (1994). *Milestones in Mass Communication Research*. Chapter 7, Personal Influence.
- Lowrey, W., & Gade, P. (2011). Connective Journalism. In Lowrey, W., & Gade, P., (Eds.), p. 270-286, *Changing the News: The Forces Shaping Journalism in Uncertain Times* (1st ed.). Routledge: New York.

- Marwick, A.E., & Boyd, D.M. (2010). I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*, 13(1), p. 114-133.
- Meng, F., Wei, J., & Zhu, Q. (2011). Study on the impacts of opinion leader in online consuming decision. *2011 International Joint Conference on Service Sciences*, May 2011, p. 140-144.
- Meraz, S., & Papacharissi, Z. (2013). Networked gatekeeping and networked framing on #Egypt. *International Journal of Press/Politics*. 18(2), p. 138-166.
- Mitchelstein, E. & Boczkowski, P.J. (2009). Between tradition and change: A review of recent research on online news production. *Journalism*, 10(5), p. 562-586
- Monge, P., & Contractor, N. (2003). *Theories of Communication Networks* (1st ed.). Oxford University Press: New York.
- Muchnik, L., Pei, S., Parra, L.C., Reis, S.D., Andrade Jr., J.S., Havlin, S., & Makse, H.A. (2013). Origins of power-law degree distribution in the heterogeneity of human activity in social networks. *Scientific Reports*. Vol. 3, 1783.
- Murdock, G. (1993). Communications and the constitution of modernity. *Media, Culture and Society*. Vol. 15, p. 521-539.
- Nguyen, A., & Western, M. (2006). The complementary relationship between the Internet and traditional mass media: The case of online news and information. *Information Research*. 11(3), paper 259.
- North, M., Bloom, T., Al Nashmi, E., & Cleary, J. (2014). Promoting and Branding of News on Twitter: An Examination of CNN International. Presented at the

- Association for Education in Journalism and Mass Communication, Feb. – March, 2014 (Norman, OK).
- O'Reilly, T. (2007). What is web 2.0: Design patterns and business models for the next generation of software. *Communications & Strategies*, 65(1), p. 17-37.
- Picard, R.G. (2009). Blogs, tweets, social media, and the news business. *Nieman Reports*; Fall, 2009.
- Quercia, D., Ellis, J., Capra, L., & Crowcroft, J. (2011). In the Mood for Being Influential on Twitter. *Privacy, Security, Risk & Trust (PASSAT), 2011 IEEE Third International Conference On & 2011 IEEE Third International Conference On Social Computing (Socialcom)*.
- Rafaeli, S., & Sudweeks, F. (1997). Networked interactivity. *Journal of Computer-Mediated Communication*, 2(4).
- Robinson, S. (2007). “Someone’s gotta be in control here”: The institutionalization of online news and the creation of a shared journalistic authority. *Journalism Practice*, 1(3).
- Roger, E. (1995). Chapter 1, Elements of Diffusion. *Diffusion of Innovations*, (4th ed.). New York: Free Press.
- Rogers, E.M. (2010). Chapter 1, Elements of Diffusion. *Diffusion of Innovations*, (4th ed.). The Free Press: New York.
- Royer, J. (2014). SPJ Updates Code of Ethics. Society of Professional Journalists, media release, Sept. 26, 2014. Retrieved from:
<http://www.spj.org/news.asp?ref=1282>

- Schramm, W. (1957). *Responsibility in mass communication*. New York, Harper & Brothers.
- Scott, J. (2000). *Social Network Analysis* (2nd ed.). London: SAGE Publications.
- Severin, W.J., & Tankard, J.W. (2001). Chapter 7: Cognitive Consistency and Mass Communication. In *Communication Theories: Origins, Methods and Uses in the Mass Media* (5th ed.). Upper Saddle River, NJ: Pearson.
- Singer, J.B. (2011). Journalism and digital technologies. In Lowrey, W., & Gade, P., (Eds.), p. 213-229, *Changing the News: The Forces Shaping Journalism in Uncertain Times* (1st ed.). Routledge: New York.
- Society of Professional Journalists (2014). Society of Professional Journalists Code of Ethics. Retrieved from: <http://www.spj.org/ethicscode.asp>
- Song, D. (2013). Research on information propagation model for microblogging. *Journal of Networks*, 8(7), p. 1647-1653.
- Stadd, A. (2013). 59% of journalists worldwide use Twitter, up from 47% in 2012 [Study]. Social Times. June 26, 2013. Retrieved from: <http://www.adweek.com/socialtimes/journalists-twitter/486900?red=at>
- Strupp, J. (2009). Newspapers tweeting like crazy -- but what are the rules?. *Editor and Publisher*, May 15, 2009.
- Tsfati, Y. (2010). Online News Exposure and Trust in the Mainstream Media: Exploring Possible Associations. *American Behavioral Scientist*, 54(1), p. 22-42.
- Twitter, Inc. (2016). Twitter usage/company facts, monthly active users. Dec. 31, 2015. Retrieved from: <https://about.twitter.com/company>

- Van Dijk, J. (2005). Chapter 2: Networks: The Nervous System of Society. In *Network Society: Social Aspects of New Media* (2nd ed., pp. 19 - 41). London: SAGE Publications.
- Wartella, E., & Middlestadt, S. (1991). The Evolution of models of Mass Communication and persuasion. *Health Communication*, 3(4), p. 205-215.
- Wasike, B.S. (2013). Framing news in 140 characters: How social media editors frame the news and interact with audiences via Twitter. *Global Media Journal*, 6(1), p. 5-23.
- Weeks, B., & Holbert, R. (2013). Predicting Dissemination of News Content in Social Media: A Focus on Reception, Friending, and Partisanship. *Journalism & Mass Communication Quarterly*, 90(2), p. 212-232
- Weimann, G. (1982). On the Importance of Marginality: One More Step into the Two-Step Flow of Communication. *American Sociological Review*, 47(6), p.764-773.
- Weimann, G. (1991). The Influentials: Back to the concept of opinion leaders? *Public Opinion Quarterly*, 55, p. 267-279.
- Wilson, C., Sala, A., Puttaswamy, K., & Zhao, B. (2012). Beyond social graphs: User interactions in online social networks and their Implications. *ACM Transactions on the Web*, 6(4), article 17.
- Wu, S., Hofman, J., Mason, W., & Watts, D. (2011). Who Says What to Whom on Twitter. International World Wide Web Conference Committee, 2011 - Session: Diffusion. March 28–April 1, 2011, Hyderabad, India.
- Zubcsek, P.P., Chowdhury, I., Katona, Z., (2014). Information communities: The network structure of communication. *Social Networks*, 38, p. 50-62.