The Social News System: Examining the Relationship between Psychological Sense of Community, Social Network Site Use, and News Sharing Behaviors

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Dedication

For Grandma Arlene.

Abstract

Social network sites have allowed audiences to become increasingly active in the creation, analysis and circulation of news online. News sharing is a crucial behavior to understand in an era where professionally produced content must compete with countless other information sources for attention and visibility. Numerous studies have examined the posting behaviors themselves of social media users; however research has not yet determined the underlying social-psychological reasoning behind decisions to post news stories on social network sites. This study argues that psychological sense of community offers a lens with which to understand news sharing not as a random act, but as reasoned behavior among individuals who are aware of other community members, who care about the wellbeing of the group as a whole, and who are bound together by meaningful interactions and conversations.

Broadly, this study examines why audiences seek out and share news stories amongst themselves. Specifically, it proposes and tests a model that integrates three different research frameworks that have never before been brought together, enabling us to identify the roles that overall news consumption, social network site perceptions and behaviors, and psychological sense of community play in encouraging audience members to share news stories with each other on social network sites.

An online survey was distributed to test the validity of the research model, returning 344 responses. The empirical analyses provide partial support for the proposed research model. News consumption and community-related outcome expectations are clearly the most important factors in predicting news sharing on Facebook. However,

while respondents did report moderate levels of PSOC, its role in the news sharing model is less clear.

This study advances our understanding of the behaviors and social psychological processes that impact knowledge sharing on social media, and provides insight into the value of social media and their audiences to professional news organizations. As a whole, this study contributes to a deeper understanding of how human beings make use of digital technologies and social media, and the implications of that use on the role of journalism in building an informed citizenry.

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Chapter 1

Introduction

We live in a world that is becoming increasingly mediated by digital technologies. According to the US Census Bureau (2014), computer and internet use has changed dramatically since their Current Population Survey first began collecting related data nearly thirty years ago. Their research found that in 1984, just 8.2% of US households had a computer at home. By 2012, that number increased to 78.9% of all US households having a computer: desktop, laptop, smartphone, tablet, gaming console, or some other device. Their survey also found that households with internet access were up from 18% in 1997 to nearly 75% in 2012. The percentage is even higher among young and middle-aged adults, with over 82% of 18-34 year olds, over 84% of 35-44 year olds, and 81% of 45-64 year olds living in a household with internet access in 2012.

Likewise, a survey from the Pew Internet and American Life Project found that at the end of 2012, 81% of American adults used the internet, up from 47% in 2000. According to their research, the percentage of internet use is even higher among 18 to 29 year olds (94%) and 30 to 49 year olds (87%) (Pew Research Center, 2012). Further, mobile devices are quickly becoming a primary means to access the internet. A recent study by the Pew Research Center's Project for Excellence in Journalism (Sasseen, Olmstead, & Mitchell, 2013) found that 31% of US adults own a tablet computer, and 45% own a smartphone. Further, the number of cell phone owners who use their phone to access the internet has doubled from 31% in 2009 to nearly two thirds (63%) in 2013, and

over one third (34%) of these individuals primarily access the internet from their cell phone, as opposed to other computer devices (Duggan & Smith, 2013).

As a result, our conversations, relationships, behaviors, and social and economic structures are being shaped in some way as digital technologies become pervasive in our lives. Research abounds examining the ways individuals use the internet, and the way the internet and digital technologies impact society and ourselves. One area that has garnered much attention is the use of social media. December 2013 trend data from the Pew Research Center found that 73% of online US adults use a social network site such as Facebook, LinkedIn, Pinterest, Twitter, or Instagram, up from a mere 8% in 2005. According to the survey, many online adults use multiple social networking sites (42%), though Facebook is still the dominant platform with some 71% of online adults belonging to the website. This number is even higher amongst online 18-29 year olds (84%), and 30-49 year olds (79%). Their research also found that Facebook has very high levels of engagement among users, with 63% of users visiting the site at least once a day, and 40% visiting the site multiple times a day (Duggan & Smith, 2014).

Studies have investigated behaviors and relationships taking place on these websites; the impacts of online anonymity, interactivity and other system and information quality features of the sites upon users; and motivations for using the sites. One such behavior revolves around consuming and sharing news online. Today's media world is characterized by a tremendous number of information outlets. Alongside traditional broadcasts and newspapers, the internet presents a vast array of online information sources including professional news websites, RSS feeds, video websites, file-sharing

sites, social network sites, blogs and micro-blogs. In fact, according to a recent study by the Pew Internet and American Life Project (Purcell, Rainie, Mitchell, Rosenstiel, & Olmstead, 2010), 61% of Americans get some kind of news online on a typical day, and the internet is now the third most popular news platform among the American population following only local and national television news.

Social media are quickly becoming online hubs for news consumption. According to a recent study by Pew researchers (2013), 19% of Americans saw news or news headlines on a social network "yesterday," up from 9% in 2010. It is even more popular amongst 18 to 24 year olds (34%), and 30 to 39 year olds (30%). Smartphone users (47%) and tablet users (39%) get news through a social network "sometimes" or "regularly." Pew research has shown that 65% of reddit users, 52% of Twitter users, and 47% of Facebook users get news on the social network site (Mitchell, Holcomb, & Page, 2013). Google plus (30%), Tumblr (29%) and YouTube (20%) are also popular spaces for users to find news (Mitchell et al., 2013), however Facebook, with an average of 757 million daily active users , remains a dominant force.

Amongst Facebook users, approximately two-thirds (64%) at least sometimes click on news links (16% do so often), and just under half (43%) post or share links themselves at least sometimes (10% do so often) (Mitchell & Page, 2013). This results in approximately 30% of the US population getting news on Facebook (Mitchell & Page, 2013), and the social network site is responsible for driving an average of 9% of the traffic to major US news websites traffic (Sasseen et al., 2013). Research suggests that Facebook may be even more important to small and local news websites. In a study of

Chicago news websites, Facebook drove nearly half of the traffic to small news sites, and over a quarter of the traffic to medium sites (Gordon & Johnson, 2012). During a March 2013 press conference, Facebook CEO Mark Zuckerberg explained that he sees the future of the social network site as a kind of "personalized newspaper," allowing users to "drill down into topic-specific news feeds" (Shaer, 2013). Twitter, despite its smaller membership base of 59 million active US users, has also gained a reputation as a place to find breaking and developing news stories (Sasseen et al., 2013), with approximately 8% of the US population getting news on the site (Mitchell et al., 2013). Additionally, even though only one-fifth of YouTube users get news on the site, the popularity of the site – more than 1 billion unique users visit the site each month (YouTube, 2014) – results in 10% of the US population getting news on the site (Mitchell et al., 2013).

As Goode (2009) explains, "visibility and attention, if not information, remain scarce resources in the online news sphere" (p. 1295), where professional institutions compete with a vast number of alternative news sources. He argues that "stories, once online, confront various possible fates: they may be more easily buried in this vast new attention economy…or they may be amplified, sustained and potentially morphed as they are re-circulated, reworked, and reframed by online networks" (p. 1294). While it may sound tempting for traditional news organizations to cast a wide net in the ocean of social media opportunities, given their declining budgets and the overwhelming amount of information online in general, it is important to carefully consider where to devote time and resources. In early 2012, Pew researchers interviewed Sree Sreenivasan, the chief digital officer for Columbia and a professor of digital media at its Graduate School of

Journalism, who has examined social media use and acceptance by traditional news organizations in the US. He explained that while it is increasingly common for organizations to have a designated social media editor, "not everyone will have equal success on every platform; you have to be thoughtful and strategic about where your efforts will pay off the most" (Sasseen et al., 2013).

Further, a professionally produced news product is routinely no longer seen as an end product in and of itself. Social media give citizens a unique point of entrance into the news making process, providing an interactive, multisensory news experience, and allowing stories to be told and re-told with text, video and audio content. New applications such as Twitter's Vine, which allows users to shoot and upload six-second videos, pin board platforms such as Pinterest, and Instagram, a photo-sharing application recently purchased by Facebook, allow journalists and audience members alike to share and document graphics and imagery of news stories. As such, audiences are taking on an increasingly active role in the creation, analysis, and circulation of news online.

This study begins with a broad question: what is the role of the audience in today's journalism model? It is clear that audiences must be considered as active participants, however mass communication professionals and researchers struggle to understand how and why audiences *do* and *should* participate in the news making process. While there are many diverse facets of the active audience (e.g., the ability to comment on professional news stories, the ability to analyze professional news stories on a personal website, or the ability to produce breaking news on a social network site) the current study's focus is on the ability to participate in the circulation of professionally

produced news stories. This is a crucial behavior to understand in an era where professionally produced content must compete with countless other information sources for attention and visibility.

Numerous studies have examined the posting behaviors of social media users; however research has not yet determined the underlying social-psychological reasoning behind posting a story about a political candidate rather than, say, a picture of a cat. Information abounds online and on social media. While much of it is entertaining, it also is irrelevant to individuals in their roles as democratic citizens. Journalistic professionals and researchers must understand why audiences, as they have increasing power to share news stories and in turn support traditional news organizations, partake in the type of behavior that benefits not only themselves, but their online network and society at large. In short, we are confronted with the question: how should news sharing by audience members be viewed as part of today's media ecology?

This study argues that psychological sense of community offers a lens with which to understand news sharing not as a random act, but as reasoned behavior among individuals who are aware of other community members, who care about the wellbeing of the group as a whole, and who are bound together by meaningful interactions and conversations. News has long been understood as central to community functioning; however as community and news engagement transition to online venues, research must examine this relationship within social media.

Therefore, broadly, this study examines why audiences seek out and share news stories amongst themselves. Specifically, it proposes and tests a model that enables us to

identify the roles that overall news consumption, social network site perceptions and behaviors, and psychological sense of community play (both directly and indirectly) in encouraging audience members to share news stories with each other on social network sites. In turn, this study will advance our understanding of the behaviors and social psychological processes that impact knowledge sharing on social media, advance our understanding of community and its measures within an online context, and provide insight into the value of social media and their audiences to professional news organizations.

Chapter 2

Social Media Theoretical Framework

The internet provides a simple, convenient, inexpensive platform for individuals to take part in any number of social activities. Social media, or "Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content" (Kaplan & Haenlein, 2010, p. 61) are crucial to online connections. Members of these websites have an unprecedented ability to connect with one another to support offline relationships or form new relationships based on shared interests and identities beyond their local geographic setting. Further, the interactive nature and the networked relational structure of social network sites allow members to quickly search for, access, curate and share vast amounts of information with greater ease, speed and depth than has ever been possible through traditional media outlets, other online platforms or face-to-face communication.

Social Network Site Characteristics

A social network is not a new phenomenon brought about by the internet. Traditionally, it has been conceptualized as an interconnected group of people based on interpersonal relationships, and these groups have long been understood as crucial to human survival (Coyle & Vaughn, 2008). With the advent of the internet, the term has now grown to encompass certain websites called social network sites (SNS). In 2007, boyd and Ellison (2007) defined SNSs as sites "that allow individuals to (1) construct a

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public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system" (p. 211). They recently revised their definition to "a *networked communication platform* in which participants (1) have *uniquely identifiable profiles* that consist of user-supplied content, content provided by other users, and/or system-level data; (2) can *publicly articulate connections* that can be viewed and traversed by others; and (3) can consume, produce, and/or interact with streams of user-generated content provided by their connections on the site" (Ellison & boyd, 2013, p. 158). Additionally, they make a clear distinction between using the term "social network site," which "emphasizes that these are sites that enable individuals to articulate public lists of connections—to present a social network and view others' networks," and other similar terms including "'social networks' (which is a sociological term for one's social relationships), 'social networking' (which evokes a practice of actively seeking connections and also happens offline), 'online social networks' (one's online connections more generally), or 'social networking sites' which emphasizes connecting to new people)" (Ellison & boyd, 2013, pp. 158-159).

Interactivity

All social network sites support many modes of communication, including one-to-many, synchronous and asynchronous, text and media-based, public and private (Ellison & boyd, 2013). However, despite the broad use and application of the term "interactive communication," few scholars have come to an agreement on the conceptual or operational definition of this concept. Van Dijk (2012) explains that at its most basic

level interactivity can be defined as a "sequence of action and reaction" (p. 8). She proposes that it can be understood in terms of four accumulative dimensions, which together define how interactive a medium is.

First, the *space* dimension delineates the extent to which "two-sided or multilateral communication" is possible (p. 9). Social network sites allow users to create their own postings, as well as search for and follow other users' postings, thereby creating a networked list of real-time postings on their homepage. Additionally, users can post photos and videos in conjunction with their messages. Further, users may link to and comment on content already provided by another, as well as content from external websites through hyperlinks.

Second, the *time* dimension describes the "degree of synchronicity" of the medium (p. 9). Social network sites allow users to both communicate in real time, much like a chat room, if they are on the website at the same time. In this sense, there is the potential to have immediate feedback regarding a posting on the website. However, as boyd (2008) explains, information on social network sites is persistent (i.e., it is recorded), searchable, and replicable (i.e., it can be copied in a way that is indistinguishable from the original). These characteristics allow users to interact with each other at different times.

Third, the *behavioral* dimension examines the amount of control exacted by the interacting individuals, such as the ability of the sender and receiver to exchange roles, or control events within the interaction. Van Dijk (2012) explains that this is the single

most important dimension of interactivity, as it has the potential to place the media user in a position of power.

Lastly, the *mental* dimension assesses the "understanding of meanings and contexts by all interactors involved" (p. 9). As will be discussed later, users are highly active in their online behaviors, indicating that social network site users are largely aware of the implications of their actions.

While traditional media did allow interactivity to some extent – for example, through letters to the editor, or in calling in to a radio station – social media brings interactivity between user, producer, and media to a new level. In sum, these sites provide a space for two-way synchronous as well as asynchronous communication. They place the user in the unique position of becoming a media producer and distributor beyond the basic role of a passive media consumer. Lastly, the active nature of social network sites indicates that users are highly aware of the nature of their actions and interactions. Clearly, these sites are unique, excelling in their interactive properties, offering much more freedom than traditional communication contexts.

Publicly linked connections

A second defining feature of social network sites is the ability to search for and create a publicly visible list of linked connections with other users. This list of connections comprises the user's social network, and it stands in contrast to private lists of contacts, such as those used in buddy lists on instant messaging or email lists. As Ellison and boyd (2013) note, these connections are often, but not always, reciprocal. For example, Twitter's "follow" feature and Facebook's "subscribe" feature allow users to

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create one-directional connections. They also explain that these connections serve several purposes, including "to mark and display relationships, delineate who can access that content, and serve as a filter through which viewers can browse profiles and discover friends in common" (p. 155).

Traditional offline social network studies have found that individuals can maintain between 10 and 20 close relationships (Parks, 2007) and manage around a maximum of 150 social relationships (Dunbar, 1993; Gladwell, 2000). However, studies examining online social networking sites have found that the number of online "friends" is much larger. A study by Walther and colleagues (2008) found that a sample of Facebook users at one university reported a mean of 246 friends, while Vanden Boogart's (2006) study reported a similar finding of 272 friends. Donath and boyd (2004) explain that the ease and accessibility of online social networking sites help individuals maintain a larger number of close ties than can typically be maintained without such technology. However, as discussed below, a social network site friendship does not always carry the same meaning as an offline friendship. A study by Ellison and colleagues (2011) found that Facebook users report that only about 25-30 percent of their total Facebook friends are "actual" friends. Likewise, Parks (2010) uses a capitalized "F" in his research to differentiate between the colloquial reference to friendship, and the friends, acquaintances, celebrities and many others on SNSs.

Further, while privacy settings may allow users to specify what relationships and information are visible to other social network site users, it is the connections and the *knowledge* of those connections that truly make social network sites valuable. As boyd

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and Ellison (2007) explain, "[w]hat makes social network sites unique is not that they allow individuals to meet strangers, but rather that they enable users to articulate and make visible their social networks" (p. 211). It is through these online ties that users are able to traverse the social network site and expand their own connections.

Personal profiles

A third defining feature of SNSs is the ability for users to create unique profiles, which include information provided by the user, as well as content provided by other users and the site itself. This content may include demographic and personality characteristics, status updates, activity updates, photos, videos, links to other websites, conversations or status updates from other users, content other users have "tagged" the individual in, or information about third-party sites. As Ellison and boyd (2013) explain, over time the concept of a profile "has shifted from self-presentational messages created by the individual to a portrait of an individual as an expression of action, a node in a series of groups, and a repository of self- and other-provided data" (p. 154).

One important element to consider in SNS profiles is anonymity. Traditionally, face-to-face communication has been largely defined by its nonverbal and audio components, or "regulating feedback," such as head nods, gestures, smiles, eye contact, distance, tone of voice, and other nonverbal behavior. Cues such as age, gender and appearance provide crucial status cues, and face-to-face interactions make clearly visible the sending and receiving parties of a message.

However online, communicators may at some level appear to be anonymous. Anonymity is a continuous construct, defined as "the degree to which a communicator

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perceives the message source as unknown or unspecified" (Anonymous, 1998, p. 387).

Individuals may perceive varying levels of anonymity online, ranging from knowledge of

one's name, to one's appearance and behaviors (Rains & Scott, 2007). Kiesler and

colleagues (1984) explain that CMC generally does not provide the richness of regulating

feedback present in face-to-face communication. While websites have begun to offer

imaging and voice services, the vast majority of communication online is text based.

As boyd (2008) explains, invisible audiences are a prevalent aspect of these sites.

Whereas face-to-face communication generally allows for visual confirmation of who

observes or overhears an interaction, mediated spaces do no such thing. Rather "it is

virtually impossible to ascertain all those who might run across our expressions in

networked publics" (p. 126). While privacy settings allow users to restrict their audience

and connections, social network sites do not provide indicators of whom among that

audience has observed a posting or interaction.

Social Network Site Behaviors

Given these characteristics, social network sites provide a unique space for

individuals to engage with one another. In fact, their inherent purpose is to promote

connections and participation. According to Ellison and boyd (2013), the fundamental

activity in SNSs involves "sharing content with a bounded group of users" (p. 159). As

Kaye (2011) explains, "without two-way communication there is not much point to social

network sites" (p. 212). Yet not all members of social network sites are equal in their

participation, and they may vary in terms of their activeness online. Brandtzaeg (2012)

suggests that five types of social network site users exist: (1) Sporadics (low level users

of SNS), (2) Lurkers (people who use SNSs, but do not contribute or interact), (3) Socializers (people who use SNSs mainly for social interaction with friends and family), (4) Debaters (people who use SNSs mainly for debating and discussion), and (5) Advanced (people who use SNSs frequently for almost all purposes, such as socializing, debating and contributing) (p. 471). Likewise, Curien and colleagues (2007) identify four different types of participants in a community: pure contributors (who only share information), pure askers (who only request information), reciprocal contributors (who both share and request information), and lurkers (who take no direct action within the community).

However, as Jenkins (2013) explains, "activity and passivity are not permanent descriptions of any individual" (p. 155). Individuals may participate on a website one day, but not the next; they may deactivate their account, or never register for an account in the first place. Given the ease with which individuals may alter their involvement in a given website, it is important to understand the impetus behind their behaviors. The Uses and Gratifications Theory (UGT) provides a framework with which to understand the underlying social-psychological drivers of activity on social media. Katz, Blumler, and Gurevitch first outlined the basic premises of this theory in 1974. It has since evolved to encompass two basic tenants: 1) individuals actively select media to 2) satisfy needs and desires (Bryant & Zillman, 2002).

While this theory was initially developed prior to the explosion of media use online, researchers agree that it is highly applicable to computer-mediated contexts, especially given the active nature of the internet. As Eighmey (1997) explains, the

internet is a more goal-oriented medium than traditional mass media, and therefore users tend to be highly aware of their motives for using the internet, as well as the internet features that will gratify those motives. Users must actively select a browser, type a web address, or click on a hyperlink. In doing so, they have on some level assessed what online activity will fulfill the need they are seeking to gratify. Johnson and Kaye (2009) explain, "the Internet, then, requires the user to be both active and selective in media use" as it "offers greater access to information than traditional media as well as greater control over what information to consume once the user visits the site" (p. 176).

Traditional media researchers suggest four broad motives for media consumption: information, personal identity, integration and social interaction, and entertainment and diversion (McQuail, 1985; Zillman, 1985). However, some scholars suggest that the four dimensions may not adequately encompass online media use, given the interactive nature of the internet. Most scholars agree that information exchange is the most common reason to join an online group such as a social network site (Jones, 1998; Ridings & Gefen, 2004; Ridings, Gefen, & Arinze, 2006; Wellman et al., 1996). Researchers have found that other reasons include seeking friendship, social and emotional support, socialization, companionship, a sense of belonging, self-expression, encouragement, product consumption, financial management, surveillance, and recreation (Chung & Yoo, 2008; Hiltz, 1984; Ridings et al., 2006; Ridings & Gefen, 2004; Shah, McLeod, & Yoon, 2001a; Wellman et al., 1996), however these motives have been shown to be significantly dependent upon the community type (Ridings & Gefen, 2004). For example, in her review of academic research on uses and gratifications of various internet resources,

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Kaye (2011) found that generally, chatrooms serve to gratify social contact, personal identity, and expression needs. Bulletin boards and e-mail lists tend to gratify information, education, and social needs. E-mail more broadly gratifies interpersonal and convenience needs. Social network sites have been found to satisfy needs to keep in touch with friends, make new friends, social surveillance, keeping track of group members, and information exchange. However, she points out that the new and evolving nature of social network sites requires additional uses and gratifications research. Clearly, new media uses and gratifications are nuanced and plentiful. Therefore, the current study examines the two most commonly cited motives for using SNSs: relationships and information.

Relationship formation and maintenance

Scholars have historically been divided over the viability of interpersonal relationships online and among social network site users (Bargh & Mckenna, 2004), recognizing that the anonymous and asynchronous characteristics of computer mediated communication (CMC) may impact group functioning when the primary means of communication occurs online. Early theories examining CMC such as the social presence theory and the similar reduced social context cues suggested that reduced traditional visual and auditory self-presentation cues such as physical appearance, vocal identifiers, and nonverbal cues negatively impacted the quality of the interaction (Gonzales & Hancock, 2008; Kiesler et al., 1984; Short, Williams, & Christie, 1976).

Researchers who follow this line of reasoning suggest that there is little connection between online and offline conceptions of a relationship. For example, some

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studies have found that an online friend does not always carry the same status as an offline friend (Nardi & Whittaker, 2002). boyd's (2006) study found that among Facebook users it is not uncommon to solicit and establish "friend" status among those with whom one is barely acquainted, while it is socially inappropriate to refuse a friend request from someone who is familiar in the offline world. Other research has found that when lacking an offline relationship, individuals are not able to form close ties to their online friends. A 2006 survey by Vanden Boogart reported that approximately 46% of survey respondents had either neutral feelings or felt disconnected from their friends on Facebook due to the fact that they may not necessarily be close acquaintances offline (Vanden Boogart, 2006).

However, as the communicative capacity of the internet evolved, so did social-psychological theories of online relationships. Beginning in the second half of the 1980s, scholars realized that mediated platforms were increasingly being used for social and emotional communications (Van Dijk, 2012). Research emerged suggesting that given enough time and interaction, online group members are able to form feelings of relationships equivalent to those experienced offline (Walther, 1992; 1995). While it may be true that online interactions lack the level of regulating feedback provided in face-to-face communication (Kiesler et al., 1984), many scholars now suggest that this may not be damaging to the relationship formation and development. Rather, scholars adhering to the social identity model of deindividuation effects and the similar social information processing model suggest that individuals strongly depend on the few cues available online to form complete impressions of others (Lea, Spears, & De Groot, 2001; Postmes,

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Spears, Sakhel, & De Groot, 2001; Sassenberg & Postmes, 2002; Walther, 1992).

McKenna and Green (2002) explain that these feelings have bases other than physical

cues, such as similarity, values and interests, and conversational style, all of which have

been shown to be powerful determinants of friendship and attraction. Cues are

accumulated and feelings eventually develop a similar scope and magnitude as their

offline relational counterparts (Walther, 1992; 1995).

These researchers suggest that individuals are able to form and maintain close

relationships either purely or partially within social network sites (Donath & boyd, 2004)

which, given their overwhelming popularity, sheds some light on the allure of the sites.

Various studies have found that online relationships primarily support pre-existing offline

relationships (see: boyd & Ellison, 2007). Walther and Parks (2002) call these

friendships that move between an electronic context and a face-to-face context "mixed-

mode relationships." While some individuals do add people to their online friend list that

they have never met in person, the majority of social network site use is dedicated to

connecting with individuals that the user already knows offline (Coyle & Vaughn, 2008).

While studies suggest that most online contacts are local, and the strongest ties are with

pre-existing study or work contacts (Livingstone, 2008), social network sites allow users

to expand their network beyond those in their immediate geographic setting. Ellison and

colleagues (2007) found that more than 90% of Facebook users employ Facebook to stay

in touch with longtime offline acquaintances such as high school friends. They explain

that rather than removing individuals from offline interpersonal interaction, the online

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forum provides individuals with the ability to stay in touch or reconnect with others even when they are physically distant.

While pre-existing relationships tend to dominate social network site connections, what truly sets them apart from offline interaction spaces as well as online communication platforms (e.g., e-mail, blogs, and chatrooms) is their ability to provide a unique space for users to build *new* relationships. Whereas traditional face-to-face settings limit individuals to forming new relationships with others in their immediate physical proximity, social network sites remove these geographic boundaries. And whereas email and chatrooms may support one-to-one interaction between established connections, and blogs may support a one-to-many between previously unconnected individuals, no other online platform encourages interaction among a wide network of users. Social network sites provide an unprecedented space for users to search for other individuals, companies, professionals and even celebrities based on shared interests or identities, as well as view the relationships of other users in their social network all in one place. According to boyd and Ellison (2007), while many websites "support the maintenance of preexisting social networks," social network sites are unique in their ability to "help strangers connect based on shared interests, political views, or activities. Some sites cater to diverse audiences, while others attract people based on common language or shared racial, sexual, religious, or nationality-based identities" (p. 210). Overall, Bargh and colleagues (2004) argue, "the evidence suggests that rather than being an isolating, personally and socially maladaptive activity, communicating with others over the internet not only helps to maintain close ties with one's family and friends, but

also, if the individual is so inclined, facilitates the formation of close and meaningful new relationships within a relatively safe environment" (p.582).

Knowledge exchange

Researchers agree that informational and relational needs are the primary motives for participating in a social network site. As Ellison and boyd (2013) explain,

"the desire to communicate and share content is a primary driver of SNS use…Almost every aspect of SNS user activity is fundamentally enhanced by the ability of SNSs to lower the barriers to communication and sharing and thus reshape the kinds of networks that people are able to build and support. Many of the weak tie relationships articulated on SNSs would fade away were it not for the ease with which people can communicate, share, and maintain simple connections" (p. 159).

Early online research focused on the potential for the internet to be another mass medium through which users may seek information, and through which traditional media may expand their one-to-many information model. With the development of social network sites and other interactive platforms online, the mass media conversation has shifted from one communicating to many – as with the weekly newspaper, or the evening news broadcast – to many communicating to many. Individuals are now able to use social network sites to not only look for information online, but to also share information themselves, by communicating and interacting with each other. Rather than the mass

media being dominated by a few producers communicating to a large, passive audience, the internet, and especially social network sites, supports a system of many producers communicating to an active audience with an ease that no other mode of communication can compare to (Rettberg, 2008).

Social network platforms allow users to connect their posts to significantly more detailed information, embedding context within the text of each post through hyperlinked content, as well as audio, graphics and animated information (Pavlik, 2001). Johnson (2009) explains that users employ social network sites "as a pointing device," directing other users to the full article, discussion or posts through the use of a hyperlink (para. 12). As evidence, Farhi (2009) found that social network site users are two to three times more likely to visit news websites than an average person, using the hyperlinked content provided in the tweet.

Social network sites allow users to easily and instantly seek out real-time, updated information. Unlike traditional media outlets, or even blogs, users are able to visit their homepage and watch constantly updated posts appear from the entire network of users they follow. Users may also use the search box to expand their results beyond their personal network to discover "a real-time view onto the chatter of just about any topic imaginable" (S. Johnson, 2009 para.11). And unlike search engine Google, which gives search result preference to how many links point to a particular web page (and therefore ultimately favors older pages), social network sites provide access to "what people are saying *right now*" (S. Johnson, 2009 para.13).

In no other communication setting are users able to seek out and share information with the ease that is provided by the social network site platform. However, in order for these sites to be sustainable, users must participate by both reading as well as providing information. Feedback is imperative on knowledge networks such as social network sites that depend on people who not only benefit from the site, but also contribute to it (Van Dijk, 2012), given that the content on social network sites consists nearly entirely of information provided by users. If no one posts information, the site will cease to exist and users will have no reason to visit. Conversely, users must actively join and visit the site to seek out information. If no one seeks out information by either reading posts on their homepage or searching for specific information, users have no incentive to post information for an audience of zero. Despite the centrality of knowledge exchange among social network site users, little research has directly compared the motives behind information seeking and information sharing, drawing a distinction between them and understanding how they work together to create a successful system of knowledge exchange on social network sites.

Information seeking

While research has clearly established knowledge as a primary motivation for seeking out information on social network sites, little research has examined why individuals make specific information selections. One role information seeking may play is to assist in the construction and maintenance of an individual's sense of his or her own social identity. Individuals are likely to seek out a particular piece of information, whether it be news stories or a status update from a friend, that is congruent with their

own sense of identity (Barker, 2009). As Mersey (2010) explains, "the media that we consume are a part of who we are and how others perceive us" (p. 48). She goes on to suggest, "individuals choose media that suit their social identities and avoid media that are an ill fit" (p. 67). By seeking out information that is congruent with a specific social identity, individuals learn how to present cues that are consistent with the identity of the social group in which they wish to belong.

Similarly, seeking out specific information may help individuals establish a sense of common identity with other members of their social network. As previously explained, connections on social network sites are comprised not only of individuals who know each other well offline, but also those who have not seen each other for several years, who have never met in person, and who are in geographically remote areas of the world. Information seeking creates a sense of "we" (Durkheim, 1964), or a sense of "collective identity" (Beaudoin, 2009b) among users who may not be "friends" in the every day vernacular sense of the word (boyd & Ellison, 2007), but who share a feeling of being connected to one another through that common piece of knowledge.

The interactive nature of the internet, and the networked relational structure of social network sites allows users to quickly search for and locate vast amounts of information with greater ease and in much greater depth has ever been possible through traditional media outlets, as well as other online platforms and in face-to-face communication. Further, social network site users are able to personalize their information intake by curating the users whose posts they follow in their network, and by searching for specific topics. As Althaus and Tewksbury (2000) explain, "[r]ather than

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relying on the tastes and gatekeeping preferences of editors and producers of the traditional media, Internet users are able to pick and choose among content options" (p.26). However, the existence of this content depends entirely upon users actively participating in the SNS by sharing information.

Information sharing

Research on motivations to share information on social network sites has been much more limited than that of information seeking. Some scholars have found that individuals share information simply for personal gain, such as monetary or other awards, recognition, self-esteem, and professional reputation (see: Hew & Hara, 2007). Much like information seeking, information sharing on social network sites may be largely driven by self-presentation and identity management. A study by Ma and Agarwal (2007) found that believing that others understand an identity is positively related to continued participation and satisfaction in an online community. Therefore, individuals selectively present information to create a precise image of their social identity. Clearly, information that a user posts and discusses indicates that he or she believes it is important in some way, and therefore it is a strong self-presentation cue.

Others have found that altruistic goals may motivate information sharing. For example, a study by Hars and Ou (2002) found that empathy for another user and desire to benefit the network as a whole are motivators for information sharing. Further, information sharing on social network sites is another way for users to feel engaged with each other, contributing to the above-described sense of common identity. boyd and colleagues (2010) explain,

"while retweeting can simply be seen as the act of copying and rebroadcasting, the practice contributes to a conversational ecology in which conversations are composed of a public interplay of voices that give rise to an emotional sense of shared conversational context…retweeting can be understood as a form of information diffusion and as a means of participating in a diffuse conversation. Spreading tweets is not simply to get messages out to new audiences, but also to validate and engage with others" (p. 1).

Further, the act of sharing information can be further examined with regards to the type of information being shared. Carey (1989; 1993) distinguishes between transmission and ritual sharing of information. To him, the transmission view of information sharing is merely "the extension of messages across geography for the purposes of control." It is the ritual view of communication that binds community together and creates symbolic interactions that draw "persons together in fellowship and community" (Carey, 1989, p. 18) in a way that defines the group and encourages forms of mutual accommodation (Carey, 1993). In this sense, we can distinguish between mundane *information* being transmitted on SNSs (e.g., photos of one's breakfast, or status updates pertaining to the individual's state of mind) and ritual *communication* that is valuable to the group as a whole (e.g., a discussion of national and political news updates).

Chapter 3

Community Theoretical Framework

Given the overwhelming amount of information on SNSs, it is important to not only distinguish between information seeking and information sharing, but also between information that is beneficial to the individual alone and communication that is beneficial to the group as a whole. Further, because participation online is voluntary, and individuals clearly have different motivations for participating online, it is important to understand the context in which these behaviors take place. As Lewin (1943) explains, behavior is a function of the interaction between the individual and his or her environment. Often, online environments such as SNSs are referred to as communities; yet while the very term "community" implies a bounded space of interconnected individuals, not every online space engenders engaged behaviors, and not every online space that generates participation does so in a manner that is beneficial to the individual, group or society. As Jones (1998) explains, "connection does not inherently make for community, nor does it lead to any necessary exchanges of information, meaning and sense making at all" (p. 5). Bruns (2012) argues that "communities…exist around a core both of highly committed and engaged users, and of shared values, practices, and knowledges held strongly by these users, collectively developed and defined over time" (p. 819). Central to the current study is defining what "community" means in a digital world, and its relationship with communication behaviors.

Historical Evolution

In 1966, Nisbet identified community as being "the most fundamental and far-reaching of sociology's unit ideas" (p. 47). King (2008) explains that humans have a fundamental need for "contact, control, knowledge, and the social and sociological elements of communication" that arise from community membership (p. 109). Researchers around the world and across disciplines agree that communities are a crucial part of society, and necessary for a healthy civilization. Traditionally, social ties within physical boundaries have been the defining value of community. Conceptual roots can be traced back to the works of Hobbes (1668), Locke (1689), and Rousseau (1762). Relationships were formed through work and school, identity was developed in face-to-face conversations, and knowledge was exchanged among neighbors. Friedland (2001) explains that classic conceptions of community were based on "the idea of the rural village with its traditional ties built from close-knit kin who lived near by…communities were places where most people knew each other (or could); where strong bonds of church, school, and voluntary association tied Americans together" (p. 168).

However, sociologists have been plagued with a persistent concern that industrial evolutions and urbanization have weakened this dense, interdependent notion of community that was so prevalent though the early 20th century. Dunham (1986) points to three main factors that have led to the decline in the notion of "communities of place," which are geographically bound: "the industrial revolution, the increase of scientific knowledge, and the increase in the speed of communication" (p. 399).

Others argue that these crucial ties have simply moved elsewhere. As technological advances continue to reduce the cost of transporting people and information, individuals are given increasing abilities to choose whom to interact with beyond close physical proximity. Community is not disappearing, but it is transitioning to "communities of interest," where membership is based on something other than location. Rather than completely replacing offline social life, digital technologies are being integrated into and "thickening" offline relationships (Benkler, 2006). While communities of interest may still occur in geographically bounded areas such as the church or the workplace, the internet and social media have "grown from the deeper personal and social needs of people in contemporary society" (Van Dijk, 2012, p. 184) to connect with one another on the basis of something other than physical locality. As Rainie and Wellman (2012) explain, networked societies allow us to connect with many shifting communities based on our needs at the moment, as opposed to a few static communities that serve all of our needs at once. At the heart of this new conception of community is the individual, rather than his or her geographical environment.

While community is of utmost importance to society, it is an ambiguous and overused concept. Over 50 years ago, Hillery (1955) identified ninety-four different definitions of community. Since then, the situation has not improved. Scholars have recognized community as referring to a place, process, institution, interaction, feeling, cognition, structure, and a number of other concepts (Garcia, Giuliani, & Wiesenfeld, 1999; Rothenbuhler, 1991); no common definition, model, or measure exists. Further, it may be understood as a group or individual construct, making research in one field of

little use to research in another. This is especially problematic in an online world, where individuals are connected to many different disparate networks without clearly defined boundaries, all of which they may see as communities (Ellison & boyd, 2013).

Community as a Group-Level Construct: Social Capital

Economists and sociologists define community according to attributes of the group as a whole. To these researchers, social capital, which exists in these interactions and connections among individuals, is the defining value of a community. Early conceptions of the term trace back to the beginning of the 20th century. According to French sociologist L. Judson Hanifan (1916), while "the individual is hopeless socially," the accumulation of social capital that arises from "the help, the sympathy, and the fellowship" amongst community members is not only beneficial, but necessary to the well being of the community as well as individual (p. 130). More recently, French sociologist Pierre Bourdieu (1986) popularized the term in his examination of its relationship with economic resources. He defined social capital as "the aggregate of the actual or potential resources" that come from group memberships which in turn "provides each of its members with the backing of the collectively-owned capital, a 'credential'— which entitles them to credit, in the various senses of the word" (p. 248-49). To him social capital is a phenomenon that provides access to resources through social connections.

Sociologist James Coleman (1988) was concerned with relationship between social capital and social relationships. To him, social capital "inheres in the structure of relations between actors and among actors....[it] is productive, making possible the

achievement of certain ends that in its absence would not be possible" (p. 98). In his research, Coleman identified several forms that social capital may take: obligations, expectations, and trust between individuals; the flow of information; and the norms and sanctions within a society that may either facilitate or constrain action.

While Coleman and Bourdieu pioneered social capital research, its rise in popularity can largely be attributed to Putnam's (1995; 2000) examination of democracy and the long-term decline of civic engagement (which, according to him, was exemplified by a decline in organized group participation). He defines social capital as "features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam, 2000, p. 67). Putnam identifies three key elements of social capital: social (interpersonal) trust, civic engagement, and political (institutional, including the media) trust. Additionally, he explains that social capital may be formal (through membership or participation in organizations) or informal (through socializing with friends and neighbors). Further, he differentiates between bridging and bonding social capital. He refers to the former as the "inclusive" weak ties that allow individuals to reach new ideas and people, and the latter as the "exclusive" strong ties that provide practical and emotional support (p. 22-23). Putnam argues that social capital improves political systems and economic health, and reduces crime and illness by providing strong social bonds that compel people to participate in civic affairs. However, he fears that TV and internet use have led to a consistent decline in social capital, as evidenced by distrust in government, and declining political participation.

Since then, many researchers have suggested their own definition and measure of

social capital (Beaudoin, 2009a; 2009b; Fleming, Thorson, & Peng, 2005; N. Lin, 1999; Shah, Kwak, & Holbert, 2001b; Vergeer & Pelzer, 2009; Wellman, Haase, Witte, & Hampton, 2001), depending on the context of the research. La Due Lake & Huckfeldt (1998) suggest that the trouble with defining social capital is that it "cannot be defined on the basis of individual characteristics, or even on the basis of individual organizational memberships, because social capital is not possessed by individuals. Rather, it is produced through structured patterns of social interaction" (p. 581). Consequently, it too has become an ambiguous, abstract term. However, at its core social capital can be conceptualized as is the value that exists in our relationships. It is "formed, maintained, and reinforced through exchanges" (Fleming et al., 2005, p. 221) that allow for mutually productive and beneficial outcomes that would otherwise not be possible.

Much like sociologists, economists believe that the desired outcome defines a community. According to Curien (2007), communities will only survive if the public good is more valuable to active participants in the community than to lurkers. They explain, "if free-riders and contributors equally benefit from the public good, it is likely that the group will not succeed in provisioning it. Conversely, if the information available has far less value for free-riders than for contributors, free-riding should be limited since individuals will have an incentive to contribute" (p. 208). In other words, communities will only exist insofar as they are able to produce participants who have incentives to reciprocate and cooperate with one another in developing a public good that benefits the entire community.

Community as an Individual-Level Construct: Psychological Sense of Community

Psychologists, on the other hand, define community according to the factors internal to members of the group. The key difference between the two approaches is that for sociologists and economists, "it is the interaction between people that matters, rather than what individuals think or do on their own" (Haythornthwaite, 2005, p. 127). While there is clearly an important place for understanding the larger picture of group interaction, as a starting point, research must first examine the individual-level social-psychological reasoning that drives those behaviors. This is especially important in understanding online behaviors, where membership and participation is nearly entirely voluntary, and boundaries are defined by innumerable interests rather than by physical presence. Rather than using "proxy" measures for community connectedness such as physical interaction, Anderson (2010) explains that we should look for "a more nuanced measure of community based on individual perceptions [in order to]…begin to understand *how and why* social forces such as community matter" (p. 62).

Community psychology, which is a subfield of psychology, examines the relationship between individuals and their environment in order to "understand and to enhance quality of life for individuals, communities, and society" (Dalton, Elias, & Wandersman, 2001, p. 5). Sarason (1974) was one of the first researchers to suggest that psychological sense of community (PSOC) should be the determining value of a community. He defined PSOC as "the perception of similarity with others, an acknowledged interdependence with others, a willingness to maintain this

interdependence by giving to or doing for others what one expects from them, the feeling that one is part of a larger dependable and stable structure" (p. 157). At the same time, he also warned that PSOC "does not sound precise, it obviously reflects a value judgment, and does not sound compatible with 'hard' science" (p. 157). Yet, he argued that people knew when they had it and when they didn't.

Since Sarason's (1974) introduction to PSOC, there has been much debate over its definition and dimensions. In 1986, McMillan and Chavis developed the first theoretical base for studying PSOC, which has received much support and is still the most widely used and accepted among community psychology researchers (Chipuer & Pretty, 1999; Obst & White, 2005; Obst, Zinkiewicz, & Smith, 2002b). They defined PSOC as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (McMillan & Chavis, 1986, p. 9). Their model proposes that four psychological dimensions work together to create an overall sense of community.

First, membership is "the feeling of belonging or sharing a personal sense of relatedness" (p. 9). They propose five attributes that work together in a "circular, self-reinforcing way" (p.15). Boundaries (e.g., language, dress, and ritual) provide members with a sense of who belongs and who does not. Emotional (as well as physical and economic) safety provides a sense of security that is "necessary for needs and feelings to be exposed and for intimacy to develop" (p.9). A sense of belonging and identification "involves the feeling, belief, and expectation that one fits in the group and has a place there, a feeling of acceptance by the group, and a willingness to sacrifice for the group"

(p. 10). Personal investment in the community membership provides "a feeling that one has earned a place in the group and…as a consequence…membership will be more meaningful and valuable" (p. 10). This also improves group cohesiveness by strengthening bonds among members. A common symbol system (i.e., the social conventions that are unique to the group, and are understood by members of the group) further defines and maintains group boundaries.

Second, influence is "a sense of mattering, of making a difference to a group and of the group mattering to its members" (p.9). It is a bidirectional concept involving the process of enforcing and challenging group norms. They explain, "in one direction…for a member to be attracted to a group, he or she must have some influence over what the group does. On the other hand, cohesiveness is contingent on a group's ability to influence its members" (p. 11). Further, cohesiveness and influence are not mutually exclusive concepts. McMillan and Chavis (1986) explain, "people who acknowledge that others' needs, values, and opinions matter to them are often the most influential group members, while those who always push to influence, try to dominate others, and ignore the wishes and opinions of others are often the least powerful members" (p. 11).

Third, integration and fulfillment of needs is "the feeling that members' needs will be met by the resources received through their membership in the group" (p.9). McMillan and Chavis (1986) translate this component into the concept of reinforcement, explaining, "for any group to maintain a positive sense of togetherness, the individual-group association must be rewarding for its members" (p. 12). Such reinforcers include the status of being a member, the competence of other community members, and the

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success of the community. They explain that while a plethora of individual needs based on individual values exist for communities to fill, and strong communities are defined by their ability to "fit people together so that people meet others' needs while they meet their own" by "organiz[ing] and prioritize[ing] its need-fulfillment activities" (p. 13). Sarason's (1974) early conceptualization of PSOC echoed this element, citing "an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them" (p. 157).

Finally, shared emotional connection is "the commitment and belief that members have shared and will share history, common places, time together, and similar experiences" (p. 9). McMillan and Chavis (1986) propose seven features that are important to this dimension: (1) "the more people interact, the more likely they are to become close"; (2) "the more positive the experience and the relationships, the greater the bond"; (3) "if the interaction is ambiguous and the community's tasks are left unresolved, group cohesiveness will be inhibited"; (4) "the more important the shared event is to those involved, the greater the community bond"; (5) "the importance to the member of the community's history and current status" (6) "reward or humiliation in the presence of community has a significant impact on attractiveness (or adverseness) of the community to the person"; and (7) the "spiritual bond [that is] is present to some degree in all communities [and is] "the definitive element for true community" akin to the "soul" of the community (p. 13-14).

McMillan and Chavis (1986) posit that each of these aspects contributes to the four dimensions of their model, which in turn work together to create an overall sense of

community (see: Fig. 1). It is a complicated model, as evidenced by their proposed

dynamics within and between each dimension, and neither McMillan and Chavis nor

subsequent PSOC researchers have tested the explanatory model of PSOC as a whole

(Blanchard & Markus, 2004). However, central to this conception of community is

reciprocity and collectivity, which has been supported by researchers. According to Park

(1975), "the general psychological characteristics of social groups are: (1) reciprocity,

that is, the mutual affecting and reconciling of human drives, and (2) a general will which

is first expressed as a collective force overpowering and assimilating all individual

drives" (p. 77). Further, research has supported the four-dimensional structure of PSOC

as underlying one PSOC construct (Peterson, Speer, & McMillan, 2008).

Figure 1: McMillan and Chavis (1986) Elements of Sense of Community and their Hypothesized Relationships

Membership

Common Symbols

Boundaries

Sense of Belonging and attachment

Emotional Safety

Personal Investment

Influence

Openness to influence ←→ Power to influence

Need for validation x need for conformity = Community's power to influence

Integration and Fulfillment of Needs

The degree of fit between person-environment facilitates the development of SOC

Shared Emotional Connection

Shared emotional connection = contact + high-quality interaction

High quality interaction=(successful closure-ambiguity)x(valence x sharedness of events) +(member honor-member humiliation)

While the McMillan and Chavis (1986) model was developed in a neighborhood setting, research suggests that the framework applies equally to communities of place and communities of interest. For example, PSOC has been reported in communities of interest such as the workplace (Brodsky & Marx, 2001; Royal & Rossi, 1996), religious communities (Miers & Fisher, 2002), immigrant communities (Fisher & Sonn, 1999; Sonn, 2002), student communities (Pretty, 1990), and medical communities (Bishop, Chertok, & Jason, 1997).

Benedict Anderson's (1983) "imagined community" explains that even in the absence of regular contact, members of large groups are able to feel a sense of belonging. He suggests that communities are held together by individual feelings of togetherness,

rather than physical interactions or physical features such as national borderlines. According to Baym (1995), online communities "create shared social realities" through "communication, identity, relationships, and norms" (p. 161).

In a study comparing participants' PSOC in a virtual community of interest and participants' PSOC in their offline geographic communities, Obst and colleagues (2002c) found that PSOC was significantly higher in the virtual community. Similarly, a study by Obst and White (2007) found that individuals who perceive a greater degree of choice in belonging to a community report higher levels of PSOC than individuals who perceived less choice in membership. Several other researchers have confirmed that PSOC can develop in mediated communities online, in communities of education (Rovai, 2002), mental and health support (Forster, 2004), fandom (Obst, et al., 2002a), transaction (Boyd, 2002), and information and knowledge exchange (Blanchard, 2007), in personal blogging communities (Blanchard, 2004), and newsgroups (Baym, 1995).

PSOC has been connected to various beneficial outcomes, including social capital (Perkins & Long, 2002; Pooley, Cohen, & Pike, 2005), feelings of social and emotional support (Blanchard & Markus, 2004; Walther, 1996), development of identities and relationships (Blanchard & Markus, 2004), feelings of companionship, affiliation, and trust (Blanchard & Markus, 2004; Rheingold, 1993), improved self-esteem (Ashforth & Mael, 1989), improved group cohesion (Ashforth & Mael, 1989), increased satisfaction with and commitment to the group (Blanchard, 2004; Burroughs & Eby, 1998; Cameron, 2004; Cheung & Lee, 2009; Zhang, 2010), increased trust (Jordan, 2005; Walther, 1995), and increased participation in collective action, problem solving, knowledge sharing, and

civic activities (Chavis & Wandersman, 1990; Finholt & Sproull, 1990; Gil De Zuniga,

Puig-I-Abril, & Rojas, 2009; Hars & Ou, 2002; McMillan & Chavis, 1986; K. Y. Wang,

2010; W.-S. Yoo, Suh, & Lee, 2002).

Research has shown individual and environmental characteristics influence the

development of PSOC amongst members of online groups. On an individual level,

personality characteristics, the extent of social identification (Obst & White, 2005; Obst,

Smith, & Zinkiewicz, 2002a; Obst, Zinkiewicz, & Smith, 2002b; 2002c), amount of

participation (Blanchard, 2004; Blanchard & Markus, 2004; Brodsky, O'Campo, &

Aronson, 1999; McKenna et al., 2002; Preece, Nonnecke, & Andrews, 2004), history

with the group (Blanchard, 2004; Blanchard & Markus, 2004; Pretty, Andrewes, &

Collett, 1994), and interpersonal trust (Blanchard & Markus, 2004; Joinson, Dietz-Uhler,

& undefined author, 2002; Ridings, Gefen, & Arinze, 2002) have all been shown to

positively influence PSOC. Additionally, personality traits such as neuroticism,

extraversion, openness, agreeableness, and conscientiousness (Kirzinger, Weber, &

Johnson, 2012; Kraut et al., 2002; Lounsbury, Loveland, & Gibson, 2003; McCrae &

Costa, 1999), need for affiliation, (Davidson, Cotter, & Stovall, 1991), and self-

monitoring (Snyder, 1974) have been shown to be related to PSOC. While research has

not yet examined the relationship between motivations for joining a group and PSOC,

individuals are motivated to seek out media in order to fulfill certain needs, and through

that process the media may impact "individual characteristics or social, political, cultural

or economic structures of society" (Rubin, 2002, p. 528). Presumably an individual

visiting a group with the purpose of relationship formation and maintenance would be

more likely to develop PSOC than someone interested in a commercial exchange. Environmental influencers include immediacy of reciprocated communication (e.g., real-time vs. asynchronous communication (Curtis & Lawson, 2001)), information quality and system quality (Zhang, 2010), and satisfaction (Melone, 1990; Sabherwal, Jeyaraj, & Chowa, 2006; Wixom & Todd, 2005).

Chapter 4

The News Industry Theoretical Framework

Given the overwhelming use of social network sites to share information online, these digital platforms are becoming a crucial space for audience engagement with news information. However, the practice of journalism has been averse to reworking their traditional model to allow audience participation and input. The industry has been built on professionally created content, determined by the journalist to be newsworthy, which is then purchased by audiences and advertisers. However, social network sites create a system that has the potential to put audience members in a position of power in the digital news environment. We have entered an era of participatory culture, fundamentally altering the nature of the journalism industry from a one-to-many "lecture" to a many-to-many "discussion" (Carroll, 2004). The practice of journalism must learn to adapt to this new media environment, and embrace the conversation among audience members.

Researchers agree that an informed and engaged and informed citizenry is crucial for a successful democracy (Pavlik, 2001). Traditionally, professional journalists have served as the main information providers to the citizens of democracies, with the goal of exposing audiences to diverse ideas and multiple viewpoints, which then inform public debate. In what McCombs and Shaw (1972) termed "gatekeeping," the role of the journalist has been to determine whether or not events are newsworthy, and disseminate that information to the public.

However, scholars argue that simply determining what is "newsworthy enough to be heard" is a subjective process that may be influenced by editorial ideologies and advertiser support (Rettberg, 2008). Further, once an event is deemed to be "newsworthy," the presentation of that story may be biased. Pavlik (2001) claims that conveying the "truth" in a news story has been a problem for traditional print and broadcast media due to space and time limitations, resulting in one-sided stories. Despite the unbiased claims of traditional journalists, he argues, "the truth is not easily encapsulated into a single linear narrative of fifteen hundred words or less in print or three minutes or less of video and audio" (p. 23). Because of time and space restrictions, the traditional media industry has been largely limited in its ability to provide multiple and niche viewpoints, and in-depth information and analysis. In light of these limitations, audiences are increasingly turning to less traditional outlets for news information. Digital platforms such as Facebook, Twitter, StumbleUpon, Digg, and Reddit are quickly becoming major hubs for news dissemination and audience engagement. In fact, in their annual State of the Media review, Pew researchers found that online news through mobile devices, social media and email was the only news category that showed growth in 2012. The internet has now surpassed newspapers as a news platform, and now is ranked just behind television (Sasseen et al., 2013).

No longer are audiences limited to passively receiving the one-way communication of an evening broadcast or weekly newspaper. Instead, the network connections and interactive nature of social network sites allow audiences to be increasingly active in the gatekeeping process by accessing, producing, commenting on,

and disseminating news and information to a potentially massive audience (T. J. Johnson, Kaye, Bichard, & Wong, 2007). According to a 2010 study by the Pew Research Center (Purcell et al., 2010), at least 37% of internet users have taken advantage of this interactive role. Vivian Schiller, former senior vice president and general manager of NYTimes.com, explains, "though the long-term viability of any individual social networking site or technology is completely unproven…readers *will* engage with each other and share stories. That is a given" (Emmett, 2009, p. 41). Carroll (2004) argues that engagement begins with today's youth. She believes that "generation Y" wants to "interact with the news, not merely to passively receive it. Generation Y sees news coverage more as a discussion and less a lecture" (p. 1). Bolin (2012) explains that we are becoming increasingly integrated with the media. The ever-shrinking technologies, and ever expanding wireless access means that today we can "live *in* rather than *with* the media" (p. 800). Further, it is not only the *ability* for audiences to become their own gatekeepers of information that is revolutionary. Rather, as Lewis (2012) explains, "…what sets apart the present media moment is the *ease* with which individuals may participate in the creation and distribution of media, on a scale and with a reach unimaginable in earlier times" (p. 846).

The traditional media industry is built on professionally created content, which is then purchased by audiences and advertisers. Lewis (2012) explains that it is an industry "built on scarcity" (p. 838), in that access to information and the technology to share that information has traditionally been largely restricted to the professional journalists. However, digital platforms have created a system that has the potential to put audience

members in a position of power in the digital news environment. Now, "information is no longer scarce, hard to produce, nor difficult to repurpose and share" (Lewis, 2012, p. 838), which challenges professional control over the "creation, filtering and distribution" of news information (Lewis, 2012, p. 837). In what Bruns (2006) terms "gatewatching," he explains that audiences may now "*watch* the gates of…other news (and newsworthy) organizations, and analyse, evaluate, and discuss the information which passes through them" (p. 1). Likewise, Singer (2014) views today's audience members as "secondary gatekeepers," in that their "active participation in assessing the value – and in doing so, determining the visibility – of what is published on a media website goes well beyond previous journalistic conceptions of what audience members can or should do" (p. 56). News has become "a shared social experience as people exchange links and recommendations as a form of cultural currency in their social networks. And news is becoming a participatory activity, as people contribute their own stories and experiences and post their reactions to events" (Purcell et al., 2010, p. 40).

Sharing and discussing news amongst audience members is not unique to the internet (i.e., office conversations and mailed news clippings). However, we are moving from social interaction playing a role in news dissemination to "becoming central to the way people experience the news" (Hermida, Fletcher, Korell, & Logan, 2012, p. 7), and social network sites are quickly becoming the primary space for audiences to take part in news engagement (Bruns, 2012). In an attempt to keep up with this newly engaged audience, journalists have begun to integrate new technologies into their daily routines by adding social network or e-mail functionality to their websites (Singer, 2014; Singer et

al., 2011), promoting content with headlines and links on SNSs (Blasingame, 2011; de torres et al., 2011; Lasorsa, Lewis, & Holton, 2012; Messner, Linke, & Eford, 2011), and using online polls, blogs, and message boards (Thurman, 2008).

While these changes are certainly a dramatic departure from traditional conceptions of journalism, research has shown that audiences are still likely to rely on professional journalists to serve as initial gatekeepers of news information. Rather than replacing professionally produced content, user-generated content and other modes of news engagement gratify needs that are not served by traditional journalism, and neither will exist in isolation (Gil De Zuniga et al., 2009; Pew Research Center, 2009). For example, 55% of Twitter users post links to professionally created news stories (A. Smith & Rainie, 2010), and Facebook is a major source of traffic for the five most visited US news websites (Olmstead, Mitchell, & Rosenstiel, 2011). In fact, Facebook CEO Mark Zuckerberg likened its redesigned News Feed to a "personal newspaper," that "allows users to track multiple dedicated feeds containing only posts on news, music, photos or other types of content…[including] posts from journalists and news organizations they most want to follow" (Sasseen et al., 2013). Pew research has found that audiences are consuming more professionally produced news than ever across a variety of digital platforms, and half of tablet news users still get news in print. According to the same report, almost a third (31%) of people who get news on their tablet report spending more time with news since getting the tablet. Another 43% report that their tablet adds to the amount of news consumed (Sasseen et al., 2013).

Importantly, the original, largely invisible and undifferentiated mass audience to a professional journalistic content now serves the role of "secondary gatekeeper" for different audiences, some that may have been part of the media outlet's original audience, and others that were likely not (Singer, 2014, p. 58), greatly expanding the reach of the information. This "new media ecosystem" has the potential to support an interdependent relationship between audiences and professional journalists, encouraging the dissemination and discussion of professionally created content among online communities (Bowman & Willis, 2003). Bruns (2006) suggests that we are evolving into a two-tier system of news, where alternative news sources serve as corrective entity to the professional, commercial tier of the journalism industry. Jenkins (2008) nicely sums up the symbiotic potential of journalistic professionals and their audience, arguing that

"the power of the grassroots media is that it diversifies; the power of broadcast media is that it amplifies…The power of participation comes not from destroying commercial culture but from writing over it, molding it, amending it, expanding it, adding greater diversity of perspective, and then recirculating it, feeding it back into the mainstream media" (p. 268).

Lewis (2012) asks, what happens next, now that information is no longer scarce? It has been well established that we can no longer look at journalism in the traditional top-down, one-to-many model any longer. As Hermida and colleagues (2012) aptly explain, "social media spaces allow for new relations that disrupt authorial structures and

established flows of information" (p. 2). We have entered an era of participatory culture. The audience has entered the equation, and fundamentally altered the nature of the industry. Given the changes in the creation and circulation of news and information, journalists must learn to adapt to this new media environment, and embrace this new conversation among audiences within social network sites.

Chapter 5

A New Model and Hypotheses

The key to understanding today's media audiences lies not within simply knowing who reads what story, but rather in who *shares* that story, where they do so, and why. Information online has become so plentiful that simply viewing links to news stories online will not sustain the practice of journalism. Research has shown that individuals are more likely to read information online that has been provided by friends and family than by professional journalists (Hermida et al., 2012). Online media consumers value the idea of news as a shared social experience, and believe that social circles provide a broader range of news than that which they would receive from traditional media sources (Hermida, Fletcher, Korrell, & Logan, 2011), or from simply browsing and searching for news stories online. According to James Brady, executive editor of Washingtonpost.com, "the one thing that gets lost in all the automation and search engine gaming algorithms is that people want to know what their friends think and what people respect. One way to get content in front of you is to have your friends recommend it; that's a social filtering of news" (as quoted in Emmett, 2009, p. 41), and it is central to reaching today's media audiences.

Digital platforms have shifted the news system from a distribution model, in which the journalist sends out information to a mass audience, to a circulation model (Jenkins et al., 2013), in which audience members play an important role in the spread of information. This is not a random process amongst isolated individuals, but is instead

taking place "within larger communities and networks, which allow them to spread content well beyond their immediate geographic proximity" (Jenkins et al., 2013, p. 2). News organizations that recognize the power of social news filtering amongst online communities are increasingly turning to social platforms to compete with the challenges of a fast-changing media landscape (Emmett, 2009).

Scholars have long recognized the relationship between news media (from print media, such as newspapers and magazines, to electronic media, such as radio and TV, and most recently digital media) and community (Jankowski, 2006). Audience members who read and share media feel a sense of connection to others who are doing the same thing. Media portray behavioral and social "norms" that dictate how people should interact and play a part in their communities, and that depict views and behaviors that are sanctioned in that community (Bandura, 2002; Beaudoin, 2011; Ewart, 2000; Graber, 1997). Those portrayals play a role in developing community boundaries, in that those who adhere to the norms are included in the community while those who do not are excluded (Ewart, 2000). Further, the portrayal of group conflicts that are so common in the news media may amplify the process, by prompting people to consider how they think about the issue as a member of one group versus another (Price, 1989). Additionally, the basic act of selecting and ignoring media stories goes a long way in indicating community standards of "justice and morality" as well as what the community should consider important (Fleming et al., 2005). According to Ewart (2000), "a community comes to recognize and hence know itself through its representation in local media" (p. 1). Carey (1988) goes as far as to argue that the media hold together the

community in a "discontinuous world" (p. 15). Much like Benedict Anderson's (1983) "imagined community," at a national level, Calhoun (1992) explains that communications media create "cohesive national cultures and shared consciousnesses or ideologies" (p. 221).

Some researchers (Davidson & Cotter, 1997; Mersey, 2007; Stamm, 1985) even suggest that the relationship between community and media use may actually be a cyclical one. For example, in examining newspaper readership, Davison and Cotter (1997) explain that individuals who display high levels of sense of community "have much interest in news at many levels, which may motivate them to read many sections of the newspaper. The information they obtain from these inclinations may influence their sense of community, based on the nature of the information, and it probably deepens their knowledge of people, events, and circumstances that are sometimes important in community affairs" (p. 664). Scholars and professionals need to understand the link between seeing a news headline, and not only reading that story, but also taking part in news circulation by sharing that story.

Clearly, it is unrealistic to believe that 100% of the audience will become active participants 100% of the time in this new news media environment. According to a 2012 survey by the Pew Research Center's Internet and American Life Project, "the average Facebook user gets more from their friends on Facebook than they give to their friends," due to a segment of "'power users' who specialize in different Facebook activities and contribute more than the typical user does" (Hampton, Goulet, Marlow, & Rainie, 2012, p. 3). Nor is it desirable to have everyone share every news story they encounter.

According to Blanchard (2004), although lurkers do not actively contribute to a conversation, they still regularly participate in the community by reading messages. And Jenkins (2013) explains, lurkers still shape the news conversation by providing an audience, and commenters provide feedback. He goes on to argue that "even those who are 'just' reading, listening, or watching do so differently in a world where they recognize their potential to contribute to broader conversations about that content than in a world where they are locked out of meaningful participation" (2013, pp. 154-155).

However, the individuals, or "power users," who do share news stories online are central to the future success of the practice of journalism, providing their online connections with access to valuable information (i.e., news stories). A study by the Pew Research Center (Mitchell & Page, 2013) found that while 47% of Facebook users get news on the website (which equates to approximately 30% of the US population), only 16% visit Facebook specifically to seek out news. The large majority of Facebook users are incidentally exposed to news when they visit Facebook for other reasons. Further, their survey found evidence that "Facebook exposes some people to news who otherwise might not get it" (p. 1). According to their results, 47% of light news users believe that Facebook is an important source of news information, as opposed to 38% of heavy news users. As one respondent explained, "if it wasn't for Facebook news, I'd probably never really know what's going on in the world because I don't have time to keep up with the news on a bunch of different locations" (p. 1).

Exposure to news stories does not end with immediate Facebook friends. The 2012 survey by the Pew Research Center's Internet and American Life Project found that

Facebook users can reach an average of more than 150,000 users through their Facebook friends (Hampton et al., 2012), creating two degrees of separation between an average Facebook user, and many power users who may share news stories on a frequent basis. Further, these power users provide encouragement to follow through by reading these stories, and expectations to in turn participate in a meaningful conversation. A study by the Pew Research Center (Mitchell & Page, 2013) found that 37% of Facebook users who click on news links do so because it was a friend's recommendation. Only 20% do so because it came from a preferred news source. This study also found that only one third (34%) of Facebook news consumers follow or "like" individual journalists and commentators, which indicates that two-thirds of these individuals get their news from Facebook friends who have passed the information along. Additionally, according to their annual State of the News Media report, Pew researchers found that among those who get most of their news from family and friends on social media sites or email, 75% indicated that they very or somewhat often seek out full news stories to learn more (Enda & Mitchell, 2013).

As we move into an era of online news, where the traditional conception of journalism is in danger and traditional media use is in steep decline, the future of the industry lies in the intersection of social media, sense of community, and news sharing. Journalists must learn to harness meaningful connections that are formed within online communities on social network sites to promote the spread of news stories. Social network sites, where relationships and community are the basis for their existence, have become central to the news circulation system. However, scholars have yet to examine

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the news circulation process taking into account the interaction of SNS use and PSOC.

Therefore, the current study proposes a new theoretical model (see Fig. 2) that integrates

PSOC, SNS use, and news consumption literature to predict news sharing on social

network sites. Although longitudinal research is necessary to distinguish antecedents

from the constructs and consequences of each variable, the current study attempts to

measure PSOC, news consumption and SNS usage attributes that may account for

variance in news sharing. Based on previous research, the following variables are

hypothesized to be related to sharing news on social media.

Figure 2: The New "Social News System" Model

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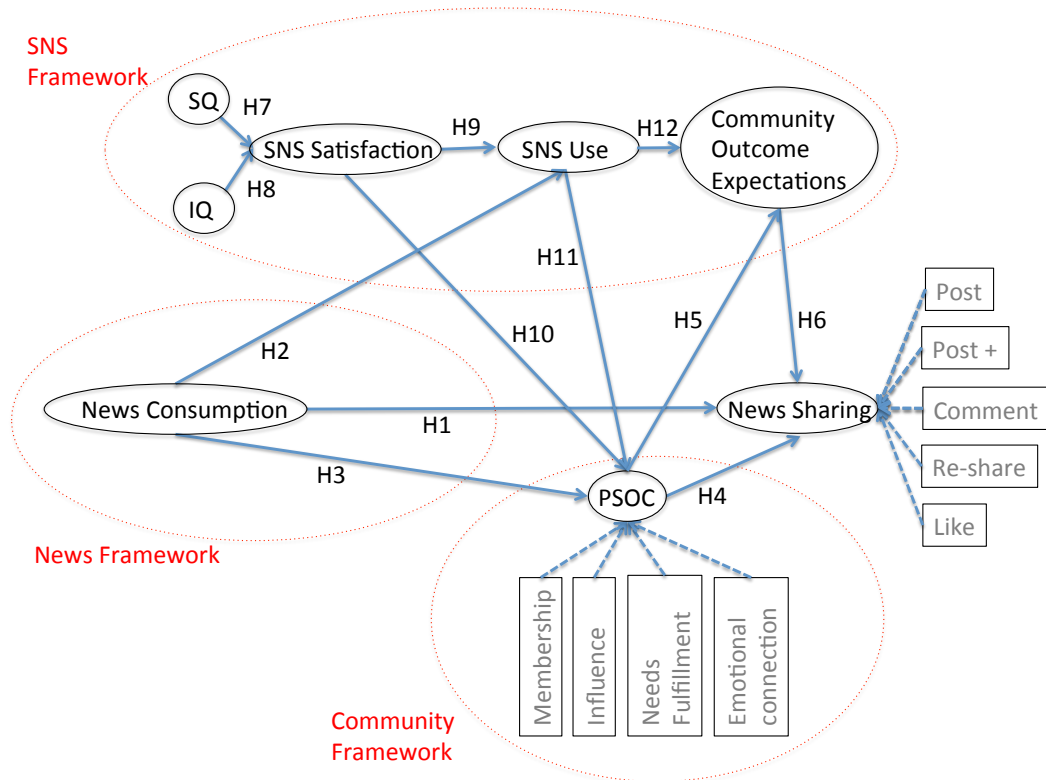
News Consumption

Given the exploratory nature of this research, the study at hand will only examine the SNS platform of Facebook. Facebook is an appropriate context with which to begin analysis, as it is by far the most popular SNS site amongst US adults, and it is the dominant platform for sharing and consuming news. News, for the purpose of this study, is defined as hard news, or the "coverage of breaking events involving top leaders, major issues, or significant disruptions in the routines of daily life, such as an earthquake or airline disaster" (Patterson, 2000, p. 3) by a traditional media outlet. Topics include "politics, public administration, the economy, science, and technology" (Curran, Salovaara-Moring, Coen, & Iyengar, 2010, p. 2). While news can be categorized in many ways, often as a dichotomy or continuum between "hard" and "soft" news, this definition was chosen due to its relevance to the public good, policy issues, and society at large, which impact "citizens' ability to understand and respond to the world of public affairs" (Patterson, 2000, p. 28). Overall news consumption is conceptualized as the frequency with which individuals get hard news from a number of online and offline sources (see: Appendix A). News sharing is conceptualized as the frequency with which individuals post, comment on, re-share, or "like" a link to a hard news story on SNSs. Limited research has directly examined the link between overall news consumption and propensity to share news stories on SNSs. A recent study by the Pew Research Center (Mitchell & Page, 2013) found that individuals who often post links to news stories on Facebook are more likely to get news across a wide variety of platforms (i.e., digital platforms such as Facebook, and watching the local, national nightly network, and cable

news) than other Facebook news consumers. It stands to reason that broadly, individuals who are aware of more news would be more likely to pass that information along. Therefore, a direct relationship is predicted between overall news consumption and sharing on Facebook.

H1: Overall news consumption is positively related to news sharing on Facebook

SNS use is defined as the frequency with which an individual visits the site (Venkatesh, Brown, Maruping, & Bala, 2008) and the duration of time spent on the site. Social media is central to the current news ecosystem. Research has shown that information is the primary reason to visit an SNS. In their annual State of the Media Report, Pew researchers discovered that 19% of Americans "saw news or news headlines" on an SNS, which is an increase from the 9% who did so in 2010 (Sasseen et al., 2013). The same report found that 15% of U.S. adults get most news from family and friends through a social media site, and nearly a quarter (23%) of 18-25 year olds do so (Enda & Mitchell, 2013). Therefore, a positive relationship is predicted between overall news consumption and Facebook use.

H2: Overall news consumption is positively related to Facebook use

According to the uses and gratifications theory, individuals are motivated to seek out media in order to fulfill certain needs, and through that process the media may impact "individual characteristics or social, political, cultural or economic structures of society" (Rubin, 2002, p. 528), including that of community. As discussed above, researchers have found a strong link between news and community. Given that Facebook has become a popular space to consume news information, those who are heavy news consumers overall are likely to find many like-minded individuals on the site. Therefore, a positive relationship is predicted between overall news consumption and PSOC on Facebook.

H3: Overall news consumption is positively related to PSOC on Facebook

Sense of Community

An important theme of McMillan and Chavis' (1986) PSOC model is the importance of a collective community identity, or a sense of being part of a meaningful, cohesive group. Given the anonymous nature of the internet, while we may know that there is some sort of audience out there, often we are "unable to verify its existence just as we are unable to verify its interpretation of our writing" (Jones, 1998, p. 6). PSOC reduces the sense of uncertainty in this "other" abstract audience, contributing to a sense that whoever reads our material will be a part of the collective community identity and will support and benefit from our sharing of information. This in turn encourages community participation and the sharing of information, such as news, that will benefit the community's functioning. In fact, several researchers have found that community participation is positively associated with PSOC formation (Brodsky et al., 1999; Hars &

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Ou, 2002; Perkins & Long, 2002; Peterson et al., 2008; Peterson & Reid, 2002; W.-S. Yoo et al., 2002), as is motivation to actively participate in collective action, problem solving, knowledge sharing, and civic activities within the community (Chavis & Wandersman, 1990; Finholt & Sproull, 1990; Gil De Zuniga et al., 2009; McMillan & Chavis, 1986; K. Y. Wang, 2010), (Hars & Ou, 2002; W.-S. Yoo et al., 2002). Further, Mersey's (2010) new identity-based journalism framework suggests that individuals will consume, distribute, discuss, comment on, and otherwise interact with news information when they feel it is part of their social identity. As Jenkins (2013) explains, "[w]hen people pass along media texts, they are not doing so as paid employees motivated by economic gain; rather, they are members of social communities involved in activities which are meaningful to them on an individual and/or social level" (p. 72). Individuals view news and other media sharing as a way to develop relationships within a social community. As Chiu (2006) explains, "[p]eople who come to a virtual community are not just seeking information or knowledge…they also treat it as a place to…develop social relationships with other people inside the community" (p. 1874). Therefore, a positive relationship is predicted between PSOC and news sharing on Facebook.

H4: PSOC on Facebook is positively related to news sharing on Facebook

The Social Cognitive Theory (SCT) proposes that an individual's behavior is partially controlled by two cognitive functions: (1) outcome expectations, or the belief that an action will lead to an outcome, and (2) self-efficacy, or the belief that one has the

ability to enact a behavior (Bandura, 1986). Individuals lacking confidence in their ability to share knowledge are less likely to follow through on the behavior. The current research only examines individuals who *do* share knowledge; therefore only outcome expectations will be examined in this study. Compeau and Higgins (1995), identified two types of outcome expectations concerning knowledge sharing: community-related and personal. Community-related outcome expectations involve the anticipated impact of the individual's knowledge sharing upon the community, such as achieving community goals, enriching the knowledge base of the community, and encouraging the continued existence of the community. Personal-related outcome expectations involve the anticipated impact of the individual's knowledge sharing upon him or herself, such as gaining recognition, respect, friendship, or cooperation (Chiu et al., 2006). Importantly, the SCT theory posits that individuals are more likely to engage in behavior they expect to result in favorable outcomes for their community or themselves (Chiu et al., 2006). While individuals certainly may display both types of outcome expectations in deciding to share information online, the current study seeks to understand the behavior of individuals who share information that primarily benefits the group as a whole.

No research has directly connected PSOC with outcome expectations literature. However, at the heart of PSOC research is the idea that community is built upon a sense of reciprocity and obligation to one another (Wellman & Guilia, 1999). Group members who feel a strong PSOC are more likely to care for one another and internalize their community as part of their identity. Therefore, it is likely that individuals who feel a

strong PSOC will have the expectation that their knowledge sharing behaviors will benefit the community as a whole, and in turn the community will benefit the individual.

H5: PSOC on Facebook is positively related to community-related outcome expectations on Facebook

No research has directly examined the relationship between community-related outcome expectations and news sharing behaviors. A recent study by Chiu and colleagues (2006) found that community-related outcome expectations positively influence the quantity and quality of knowledge sharing behavior in general. Additionally, a recent study by the Pew Research Center (Mitchell & Page, 2013) found that the most common reason (89%) for people to post news links on Facebook is to "pass along information they think is important for people to know" (p. 16). This is followed by a desire to "create a discussion among friends around an issue or event (70%)" (p. 16-17). While not specifically operationalized as "community-related outcome expectations," these types of beliefs were linked to news sharing behaviors in their study. Therefore, it is logical to hypothesize that individuals who share knowledge on Facebook are doing so with the expectation that their knowledge sharing will benefit the community as a whole.

H6: Community-related outcome expectations on Facebook will be positively related to news sharing on Facebook

Social Network Site Perceptions

Information quality, system quality, and user satisfaction have been widely found to predict social network site usage (Zhang, 2010), making them important concepts to examine in the current study. Information quality (IQ) is defined as an SNS user's perception of "the quality of the content of a social networking system," and system quality (SQ) is defined as "the extent of how well a social networking site performs its functionalities" (Zhang, 2010, p. 229). Satisfaction is conceptualized as "an affective attitude toward a [social network site]…by someone who interacts with the [site] directly (Zhang, 2010, p. 228). Nearly all information found on SNSs is user-generated, as opposed to professionally created content, which makes the quality of that content and the ability for users to use the platform to access and share that content central to user satisfaction. Both IQ and SQ have been consistently found to positively influence the satisfaction of website users (Zhang, 2010).

> *H7: System quality on Facebook is positively related to satisfaction on Facebook*
>
> *H8: Information quality on Facebook is positively related to satisfaction on Facebook*

Information systems (IS) literature has found strong support documenting the relationship between satisfaction and usage (Zhang, 2010). According to the theory of reasoned action, "a person's behavior (usage) is predicted by his/her attitudes" (Zhang, 2010, p. 228). Likewise, the uses and gratifications model posits that individuals use

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SNSs to gratify certain needs. Audience members are "self-aware, message-seeking, message-selecting individuals" (Mersey, 2010, p. 37). At its heart, the model suggests that individuals make behavioral decisions (usage) based on the expectation that their actions will gratify certain needs. Therefore, it is logical to posit that satisfaction with an SNS will be positively related to the intensity of SNS use.

H9: Satisfaction on Facebook is positively related to Facebook use

While the above definition of satisfaction definition applies to the current study's focus on SNSs, it is also an important concept to the news industry in general. Satisfaction amongst audiences and users is routinely monitored by newspapers (Mersey, Malthouse, & Calder, 2012) and other news organizations. Several studies have found a positive connection between PSOC and satisfaction with the group (Blanchard, 2004; Burroughs & Eby, 1998; Cameron, 2004; Chavis & Wandersman, 1990; Cheung & Lee, 2009; Glynn, 1986; Perkins, Florin, Rich, Wandersman, & Chavis, 1990; Zhang, 2010), suggesting that PSOC is related to more positive evaluations of the environment, social relations, and personal control of the immediate environment (Chavis & Wandersman, 1990). Therefore, a positive relationship is predicted between satisfaction on Facebook and PSOC on Facebook.

H10: Satisfaction on Facebook is positively related to PSOC on Facebook

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Social Network Site Behaviors

Research has found that PSOC formation is positively influenced by the length of time belonging to the community (Blanchard, 2004; Pretty et al., 1994). Additionally, according to Chavis and Newbrough (1986), collective problem solving is central to community formation and functioning. Similarly, Brodsky and colleagues (1999) found that civic participation at both individual and community levels predicts higher PSOC. A study by Blanchard and Markus (2004) showed that while lurkers can form PSOC in an online newsgroup, it is weaker than that of more active members. In a study of a blogging community, Blanchard (2004) found that among members of a blogging community, posting comments was a strong predictor of PSOC. Blanchard and Markus (2004) suggest that history and participation are intertwined, explaining that while initially members may participate passively, as they learn the group norms, over time they are likely to gradually become more active. Therefore, a positive relationship is predicted between the intensity of using Facebook and PSOC.

H11: Facebook use is positively related to PSOC on Facebook

Research has not directly connected SNS use with outcome expectations literature. However, studies have shown that as the amount of time spent on an SNS increases, so does the individual's connection to the community (Blanchard, 2004). Additionally, community participation influences whether self and social benefits from group membership are experienced (Mckenna & Green, 2002). A study by Blanchard and

Markus (2004) found that highly active participants felt a sense of obligation, or need, to "give back" to the group more so than lurkers. Similarly, Preece and colleagues (2004) found that in online bulletin board communities, active users feel that they get more from the community, have a greater sense of belonging to the community and have more favorable opinions of other members of the community than lurkers. Therefore it is logical to hypothesize that the longer and more frequently an individual uses Facebook, the more likely it is that he or she will be concerned that his or her knowledge sharing positively influences the community.

>*H12: Facebook use is positively related to community-related outcome*
>
>*expectations on Facebook*

Chapter 6

Methodology

Sample and Procedure

This study began by developing a survey instrument and running a pretest using a small sample of undergraduates in the School of Journalism and Mass Communication at the University of Minnesota to ensure that the survey instrument had validity and reliability. Based on the results of the pretest, minor adjustments were made to the survey design. Participants for the final study were recruited using the undergraduate subject pool available through the University of Minnesota's School of Journalism and Mass Communication. Researchers agree that young adults are vital to the future of the news industry (Chan-Olmsted, Rim, & Zerba, 2014; Lewis, 2008; Zerba, 2011), making the undergraduates an important subset of the general population to examine in this study. No overlap existed with the sample used in the pretest portion of this study. All surveys were confidential and no identifying personal information was released. Students who were willing to participate were instructed to complete the survey before a certain date in order to receive course extra credit for compensation. Participants were sent an email link to take the final survey online in November 2013.

Two screening questions eliminated participants who do not have or never use a Facebook account, returning a total of 344 complete and valid surveys for data analysis. The average age of the respondents was 22 years, 76% were female and 75% identified as

white. Respondents spend an average of 42 minutes per day on Facebook, with the largest

group (42%) spending 30 minutes or less, followed by 30 minutes to an hour (27%), and

one to one and a half hours (21%) per day. The large majority of respondents sign on

multiple times a day (66%), or once daily (25%). Table 1 lists the demographic

information of the respondents.

Table 1: Demographic Profiles of Respondents

	Frequency	Percentage (%)
Gender		
Male	81	24
Female	263	76
Ethnicity		
White	258	75
Non-White	86	25
Age	20 years (average)	1.02 years (sd)
Time spent on Facebook during an average day		
< 0.5 hours	145	42
0.5 – 1 hour	94	27
1 – 1.5 hours	71	21
1.5 – 2 hours	20	6
> 2 hours	14	4
Time spent on Facebook during an average day	42 minutes (average)	37 minutes (sd)
Frequency signing on to Facebook		
Less than once per month	5	2
Monthly	0	0
Weekly	25	7
Daily	86	25
Multiple times a day	228	66

Note: sample size = 344

Materials

Participants completed a 51-item online survey containing measures of eight

latent variables: news consumption, news sharing, PSOC, SNS perceptions, SNS use, and

outcome-expectations. Questions were compiled from prior validated instruments to

represent each construct, and were modified to represent the social networking context being studied. All questions assessed the individual's subjective perceptions of their online behaviors. SNS researchers generally rely on self-reported items because they are directly linked to actual usage and ease of measurement (Zhang, 2010). Summary tables detailing the survey items as well as their mean and standard deviation are shown in Appendix A.

It should be noted that IQ, SQ, use, news consumption and news sharing were modeled as formative constructs while PSOC, satisfaction, and outcome expectations were modeled as reflective constructs. Generally, a construct should be modeled as reflective if is considered to be *caused* by its indicators, and formative if it is considered to be *formed* by its indicators (Sanchez, 2013).

News consumption

The study used a 12-item assessment of overall news consumption adapted from Hermida's (2011) study. Questions assessed the frequency with which individuals use the various on- and offline outlets for news consumption. Each consumption item used a 6-point Likert-type response option format ranging from *1 = never to 6 = multiple times a day*.

News sharing

The study used a 5-item assessment of the frequency with which individuals take part in each of the following methods of sharing news on Facebook: (1) Post a link to a news article from a traditional media website (2) Post a comment on, excerpt from, or evaluation of that news article (3) "Re-share" a link to a news article posted by someone

else on an SNS, (4) "Like" a link to a news article posted by someone else, and (5) Comment on a link to a news article posted by someone else. Each sharing item will use a 6-point Likert-type response option format ranging from *1 = never to 6 = multiple times a day*.

Psychological Sense of Community

The study used the 8-item Brief Sense of Community Scale (BSCS) developed by Peterson and colleagues (2008), which was designed to asses the four dimensions proposed by the McMillan and Chavis (1986) model: membership, influence, needs fulfillment, and emotional connection. These four dimensions are hypothesized as representing one underlying PSOC construct. Given the lack of consistency among PSOC researchers, this scale is appropriate because the researchers not only used the original McMillan and Chavis theoretical framework to guide the development of the questions, but it also is the first empirical study to support their four dimensional model. All BSCS items used a 5-point Likert-type response option format ranging from *1 = strongly disagree to 5 = strongly agree.*

SNS Information quality, system quality, and member satisfaction

The study used a 9-item scale adapted from Lin's (2008) study. Four items assess perceptions of the quality of information found on Facebook, 2 items assess perceptions of the system quality of Facebook, and 3 items assess perceptions of member satisfaction with Facebook. All perception items used a 5-point Likert-type response option format ranging from *1 = strongly disagree to 5 = strongly agree.*

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SNS use

The study used a 2-item use scale to assess the frequency with which individuals sign on to Facebook on an average day (ranging from *1 = less than once a month to 5 = multiple times a day*), and the number of minutes an individual spends on Facebook during an average day (*recoded to range from 1 = less than 0.5 hours to 5 = more than 2 hours*).

Community-related outcome expectations

This study used a 4-item community-related outcome expectations scale adapted from Chiu's (2006) study to assess the extent to which individuals expect that sharing their knowledge on Facebook will benefit the community. All outcome expectations items used a 5-point Likert-type response option format ranging from *1 = strongly disagree* to *7 = strongly agree*.

Chapter 7

Analysis

The objective of this study was to examine how PSOC, SNS perceptions and use, and news consumption impact decisions to share news stories on Facebook. A partial least squares (PLS) analysis, which is a structural modeling technique well suited for complex models, was used to test the research model. All PLS analyses were conducted using the PLSPM package in R (see: Sanchez, 2013). Additionally, it should be noted that each relationship is assumed to be linear.

The PLS analysis involved two stages: (1) assessment of the measurement model, and (2) assessment of the structural model (Cheung & Lee, 2009; Compeau & Higgins, 1995). The quality of the measurement model was examined by assessing the reliability, convergent validity and discriminant validity of the individual items and constructs. Reliability refers to the internal consistency of a construct. Convergent validity indicates the extent to which theoretically related construct items are actually related, and discriminant validity indicates the extent to which a construct item measures the appropriate variable (Cheung & Lee, 2009, p. 289).

To assess the quality of the structural model, a bootstrap resampling method (100 resamples) determined the significance of the path coefficients (i.e., the strength between each hypothesized relationship). Structural equation modeling analyses estimate the error terms with which latent variables are measured by using multiple indicators of the same latent variable. The R^2 values indicate the amount of variance of a construct that can be

explained by the path model. The strength and significance of the path coefficients as well as the magnitude of the R^2 values indicate how well the data fit the structural model. Statistical significance was measured at *p* values less than 0.05, indicating support for the research model and hypotheses.

Measurement Model

All reflective constructs were tested for their reliability levels, and convergent and divergent validity. Since IQ, SQ, use, news consumption, and news sharing were modeled as formative, the reliability and validity tests are not meaningful for these constructs. A reflective construct is considered reliable when the Cronbach's alpha level (which measures the internal consistency of the construct) is greater than 0.70. As can be seen in Table 2, all constructs meet this criterion, indicating adequate internal consistency. Convergent validity is assessed using average variance extracted (AVE), which measures "the amount of variance that a latent variable captures from its indicators in relation to the amount of variance due to measurement error" (Sanchez, 2013, p. 100). AVE should be greater than 0.50, which indicates that 50% or more of the variance is accounted for by the construct. As can be seen in Table 2, member satisfaction and outcome expectations display satisfactory construct validity. PSOC, which has an AVE of .47, falls marginally below the recommended cutoff. However, given the theoretical support for PSOC being measured as four dimensions underlying one construct, the study will continue using all eight items as indicators of PSOC. Discriminant validity is considered adequate when the square root of the AVE from the construct is greater than the variance shared between the construct and other constructs in the model. Table 2 lists

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the correlation matrix, with the correlations among constructs and the square root of the

AVE in the diagonal. As can be seen, all reflective constructs meet this criterion,

indicating adequate discriminant validity. Additionally, an examination of the theta

matrix should confirm that all individual items associated with reflective constructs load

above .70 on their associated construct, and higher within their construct than across

constructs. As can be seen in Appendix B, member satisfaction and outcome expectations

met these requirements, exhibiting satisfactory convergent and discriminant validity.

PSOC1 (.68) fell marginally below the suggested loading, and PSOC5 (.53) and PSOC6

(.47) fell moderately below the suggested loading. However, these all loaded

substantially higher within PSOC than any other construct. Further, as mentioned above,

theory supports the continued use of all eight items as indicators of PSOC. Therefore,

given the strong evidence of a sound measurement model, analysis proceeded to

assessment of the structural model.

Table 2: Correlations, Cronbach's, and AVE

Construct	Cronbach's α	AVE	Construct MS	PSOC	OE
MS	.80	.71	**.84**		
PSOC	.83	.47	.65	**.69**	
OE	.90	.76	.30	.41	**.81**

Note: AVE = average variance extracted; Diagonal elements (in bold) are the square root of the average variance extracted. Off-diagonal elements are the correlations among constructs. For discriminant validity, diagonal elements should be larger than off-diagonal elements; MS = member satisfaction, PSOC = psychological sense of community, OE = community-related outcome expectations

Structural Model

Figure 3 shows the results of the initial structural model analysis. The path

coefficients between variables, and their significance, indicate the strength of the

relationship. The R^2 values indicate the amount of variance of a construct that can be explained by the path model. Together, these values indicate how well the data fit the structural model. Analysis indicated that all hypotheses were supported, with the exception of H4 and H12. All other path coefficients are statistically significant ($p < .05$), and overall the research model is moderately supported by the results, accounting for 27% of variance in news sharing. As hypothesized, news consumption was a significant predictor of news sharing on Facebook (H1), SNS use (H2), and PSOC (H3). PSOC was a significant predictor of community-related outcome expectations (H5), and community-related outcome expectations were a significant predictor of news sharing (H6). Finally, system quality and information quality were significant predictors of SNS satisfaction (H6 and H7), and SNS satisfaction was a significant predictor of SNS use and PSOC. PSOC was not a significant predictor of news sharing in this model (H4), and community-related outcome expectations were negatively and insignificantly related to SNS use (H12). One possible explanation for the unpredicted behavior of the outcome expectations variable is that not all individuals use Facebook for community-related purposes. Those who do will develop PSOC, which will in turn increase the likelihood that they will display community-related outcome expectations. As for the unexpected behavior of the PSOC variable, one possible explanation is that not all Facebook members who develop PSOC feel that sharing news will be valuable for their community.

Figure 3: Structural Model
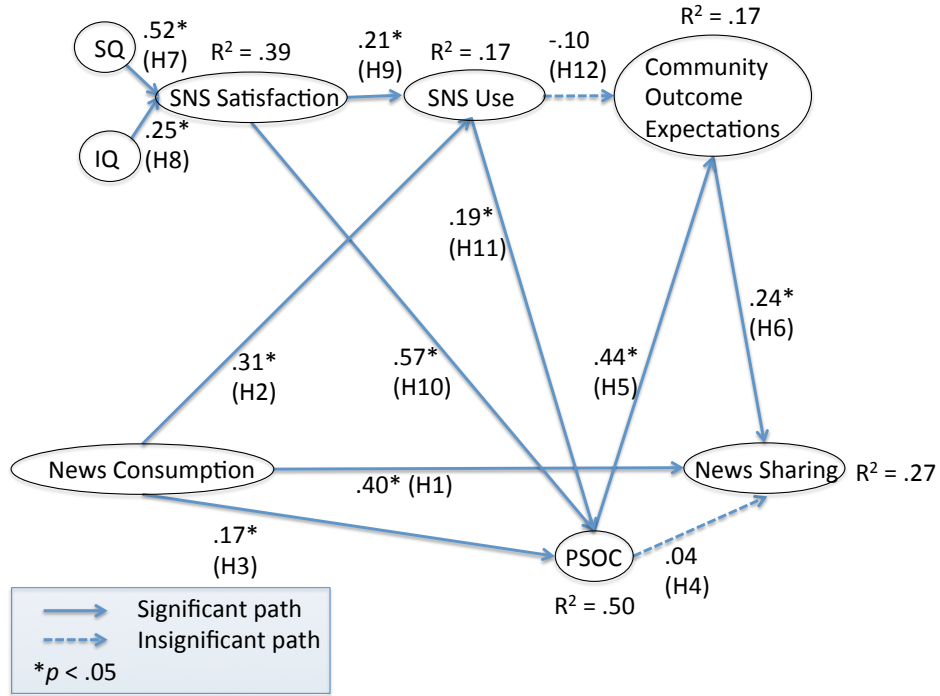
Alternative Models and Further Analysis

The initial proposed research model suggests community-related outcome expectations, news consumption, and PSOC are the primary direct predictors of news sharing on Facebook. Generally, researchers consider R^2 values below 0.20 or 0.30 to be low, and above 0.50 or 0.60 to be high (Sanchez, 2013). Based on these guidelines, the initial model provides partial and moderate explanatory power for news sharing on Facebook ($R^2 = .27$). However, given the insignificant relationship between PSOC and news sharing (H4), and the negative insignificant relationship between SNS use and community-related outcome expectations (H12), additional analyses were conducted.

Path coefficients and the R^2 values of news sharing for each alternative model are provided in Table 3. Additionally, since inferential statistical tests for goodness of fit cannot be performed within the PLS framework, the GoF index ("a pseudo goodness of fit measure that accounts for the model quality at both the measurement and the structural models") was calculated (Sanchez, 2013) to help assess the overall prediction power of the models. This measure takes into account communality, and as such it is more applicable to reflective than formative indicators. Since only three of the eight constructs were modeled as reflective, more importance was given to the R^2 values.

Table 3: Alternative Models to Explain News Sharing

	Original Model	Original Plus Use → Share	PSOC Items Direct	Original Minus PSOC3, PSOC4, PSOC7	All Direct
News Sharing R^2	.27	.27	.11	.29	.35
PSOC	.04	.02		.10*	.05
PSOC1 (NF)			.10		
PSOC2 (NF)			.10		
PSOC3 (MB)			-.01		
PSOC4 (MB)			-.04		
PSOC5 (IN)			.05		
PSOC6 (IN)			.07		
PSOC7 (EC)			-.04		
PSOC8 (EC)			.20*		
News Consumption	.40*	.39*		.39*	.45*
Outcome Expectations	.24*	.24*		.22*	.17*
Use		.05			.08
Satisfaction					-.01
System Quality					.06
Info. Quality					.05
GoF Index	.38	.38	.24	.38	.40

*$p < .05$; PSOC = psychological sense of community; NF = needs fulfillment; MB = membership; IN = influence; EC = emotional connection

First, given the negative and insignificant relationship between use and outcome expectations, a model was tested to confirm that no direct effect of SNS use on news sharing exists. Theory suggests that the effect of SNS use should be moderated by PSOC (Blanchard, 2004; Blanchard & Markus, 2004; Brodsky et al., 1999; Chavis & Newbrough, 1986; Pretty et al., 1994), which will in turn lead to increased knowledge sharing (Chavis & Wandersman, 1990; Finholt & Sproull, 1990; Gil De Zuniga et al., 2009; Jenkins et al., 2013; McMillan & Chavis, 1986; Mersey, 2010; K. Y. Wang, 2010). Likewise, SNS use was theorized to positively influence community-related outcome expectations (Blanchard, 2004), which would then positively influence knowledge-sharing (Chiu et al., 2006). Given that these cognitions should result in behaviors that are beneficial to the functioning and success of the community (i.e., news sharing) the initially proposed model predicted that in their absence, no direct relationship should exist between SNS use and news sharing. As can be seen in Table 3, the effect of SNS use is indeed moderated; SNS use did not have a significant effect upon news sharing, and the R^2 value of news sharing did not change.

Next, given the strong theoretical support between PSOC and news sharing, additional analyses were conducted in order to better understand this relationship. First, each PSOC item was tested separately in a model, accounting for 11% of the variance in news sharing. Interestingly, all items were positively and significantly related to news sharing except for the two membership items, and one emotional connection item. Based on these results, the original model was run again, this time removing the three items

from the analysis. As can be seen in Table 3, all direct relationships with news sharing became significant, and the R^2 value of news sharing increased marginally to .29.

Finally, a model was examined that simultaneously analyzed all constructs as direct predictors of news sharing in order to confirm the strength of the initially proposed model. As can be seen in Table 3, news consumption and community-related outcome expectations remained the most important predictors of news sharing, and the explanatory power of the model increased to .35. However, the remaining path coefficients are extremely small (none are above 0.10).

Overall PSOC

In order to assess whether Facebook members displayed PSOC overall, the factor structure of the PSOC scale was examined in relation to the original McMillan and Chavis (1986) model. As can be seen in Appendix A, while the two influence questions displayed moderately low factor loadings (PSOC5 = .53 and PSOC6 = .47), the remaining questions showed high positive factor loadings (ranging from .68 to .82). Additionally, the high Cronbach's alpha (α = .83) indicates that the items have a high internal consistency, lending support to the theory that PSOC is a single construct made up of four underlying dimensions. A composite variable was created that represents the mean PSOC score based on all eight items. Analysis indicates that members of Facebook display moderate levels of PSOC (M = 3.19, SD = .64).

Overall news consumption and sharing

The overall news consumption and news sharing on Facebook tendencies of the participants were examined. As can be seen in Appendix A, individuals were by far the

most likely to get their news from an individual or organization on Facebook, including friends and family (M = 4.15, SD = 1.28), followed by an individual or organization on Twitter, including friends and family (M = 3.87, SD = 1.81), television (M = 3.72, SD = 1.26), a professional news organization or journalist on Twitter (M = 3.56, SD = 1.90), an international or national news website (M = 3.34, SD = 1.42), and a professional news organization or journalist on Facebook (M = 3.08, SD = 1.62). Participants were least likely to get their news from websites of individual bloggers (M = 2.49, SD = 1.47), followed by news aggregation websites (M = 2.65, SD = 1.53), magazines (M = 2.65, SD = 1.11), radio (M = 2.92, SD = 1.42), local news websites (M = 3.06, SD = 1.30), and newspapers (M = 3.07, SD = 1.29).

Overall, participants were most likely to "like" a link posted by someone else (M = 3.13, SD = 1.26) as compared to any other form of news sharing on Facebook. Participants were least likely to post a link (M = 2.03, SD = 1.01) or a comment, excerpt or evaluation along with that link (M = 2.03, SD = 1.17), closely followed by "re-sharing" a link to a news article posted by someone else (M = 2.06, SD = 1.06) and commenting on a link to a news article posted by someone else on Facebook (M = 2.22, SD = 1.13). Overall, however, participants displayed only a moderate to low tendency to share news information in some way on Facebook. A more detailed break-down of the frequency with which participants consume news overall and share news on Facebook can be found in Appendix C, and will be discussed in the following chapter.

Chapter 8

Discussion

Key Findings and Insights

This study sought to advance our understanding of the behaviors and social psychological processes that impact sharing news stories on Facebook. A review of the SNS, community and news industry literature provided the basis for a new "Social News System" model. The empirical analysis provided partial validity of the proposed research model, which suggested news consumption, PSOC, and community-related outcome expectations are the primary direct predictors of news sharing on Facebook. News consumption and community-related outcome expectations were clearly the most important factors in predicting news sharing on Facebook. However, the role of PSOC was less clear.

Overall, respondents reported moderate levels of PSOC (M = 3.19, SD = .64) on Facebook. In the initial model, PSOC did not emerge as a significant direct predictor of news sharing. However, its effects were moderated through the outcome expectations variable. As hypothesized, PSOC was a very strong predictor of community-related outcome expectations, which in turn was a strong predictor of news sharing. If both direct and indirect effects are taken into account, the total effects of PSOC on news sharing increases from .04 to .15 (See: Appendix D). This suggests that PSOC is indeed important to news sharing though perhaps not in the initially predicted direct relationship.

Instead, feeling a sense of community with others in Facebook (i.e., needs fulfillment, membership, influence and emotional connection) cultivates expectations that sharing knowledge on Facebook would be helpful to the functioning, operation, knowledge development, and growth of the community. Individuals who believe that sharing their knowledge would result in these outcomes are consequently more likely to follow through with the behavior of sharing news stories on Facebook. As has been extensively discussed in this study, news sharing is considered a behavior that is beneficial to the community as a whole, rather than just the individual. It is unsurprising, therefore, that a strong relationship exists between community-related outcome expectations and news sharing. Additionally, the current model only accounted for 17% of the variation in community-related outcome expectations; therefore future research should continue to examine the determinants of this variable.

Given the strong theoretical support for a direct relationship between PSOC and news sharing, a simplified model examining the direct effects of each PSOC item on news sharing was also analyzed. Surprisingly, both membership items (PSOC3 and PSOC4), and one emotional connection item (PSOC7) emerged as negatively related to news sharing, suggesting that they were not important in decisions to share news stories on Facebook. Upon rerunning the original path model with the three items removed, PSOC became significant (increasing from .04 to .10), and the explanatory power of the model increased marginally from .27 to .29. Research has not examined individual PSOC dimensions in relation to news sharing, however this result could be due to issues with the scale itself, and not the construct as a whole. These items asked respondents to

indicate how strongly they agreed or disagreed with three statements: "I feel like a member of Facebook," "I belong in Facebook," and "I feel connected to Facebook." While the remaining PSOC questions asked participants to consider their feelings about relationships and interactions with other *members* of the site, these three items asked participants to consider feelings about the site itself, which does not necessarily reflect the underlying meaning of the concept. Returning to the McMillan and Chavis (1986) definition, PSOC is "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9). As discussed extensively in this study, PSOC indicates a connection with other *individuals* within the community, not necessarily the *space* in which the individuals connect. This distinction is especially crucial in understanding community in an era where clear boundaries and borders do not exist online or across the world. Future research should work to clearly explicate the McMillan and Chavis (1986) theoretical model, examining potential adjustments to the scale developed by Peterson and colleagues (2008) (e.g., "I feel connected *with others* in Facebook").

In addition, the two items measuring the influence dimension displayed low factor loadings compared to the other six PSOC items. Mirroring some previous studies (Blanchard, 2007; Blanchard & Markus, 2004; Obst, Zinkiewicz, & Smith, 2002b; 2002c), the current study suggests that the influence subscale is of questionable value to understanding PSOC in this online environment. Obst and colleagues (2002c) suggest that its lack of importance may be due to the element of choice in belonging to

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communities online. They explain, "if one chooses to belong to an association because of common interest, then the need for influence over that association may be less than the need to feel some control or influence over the area in which one lives" (p. 115). Blanchard and Markus (2004) offer another explanation. They suggest that over time, online community members may internalize group norms to the extent that they no longer realize they are influencing and being influenced by the group. Much like the general population (Duggan & Smith, 2014), the participants in this study were very heavy Facebook users, spending an average of 42 minutes on the website per day and a full 91% signing on to the website at least daily. Given the amount of time individuals now spend on Facebook, it is possible that in the early days of community development, influence was a more important dimension of PSOC. Longitudinal research is necessary to determine if this dimension evolves to become less important over time in online communities.

All but one of the remaining relationships behaved as expected in the initial model. Unsurprisingly, news consumption was the strongest predictor of news sharing on Facebook, indicating that the more news individuals consume overall (both online and in print and broadcast) the more likely they will be to share that news on Facebook. Overall, participants were quite varied in terms of their overall news consumption. Individuals and organizations including friends and family on both Facebook and Twitter were by far the most popular sources of news information. As can be seen in Appendix C, over two-thirds (76%) of the respondents reported using these sources on Facebook, and just under two-thirds (65%) reported using these sources on Twitter at least weekly. Participants

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were somewhat less likely to use Facebook and Twitter to get news from a professional news organization or journalist, though respondents reported using Twitter more frequently (56%) than Facebook (43%) for these sources at least weekly. Overall, using any of these social media sources for news far outweighs participants' use of websites of individual bloggers, news aggregation websites, magazines, and radio, and they marginally outpaced local news websites and newspapers. Television was the third most popular news source, falling just below individuals and organizations on Facebook and Twitter, and international or national news websites were the fifth most popular news source, falling between professional news organizations and journalists on Twitter and Facebook.

As a whole, participants in this study were much less likely to report sharing than consuming news on Facebook. The most common form of sharing was "liking" a link posted by someone else, with close to half (43%) reporting doing so at least weekly, and a full 68% doing so at least monthly. This was followed distantly by commenting on a link posted by someone else, with just 14% doing so at least weekly (34% at least monthly), and 10% of the respondents reported re-sharing a link posted by someone else at least weekly (31% at least monthly). Posting a link to a news story, and posting a comment, excerpt or evaluation along with that link were the least common forms of news sharing. No participants reported taking part in these types of activities multiple times a day. Eleven percent posted links at least weekly (29% at least monthly), and 15% posted content along with that link at least weekly (29% at least monthly).

These results provide interesting insight into the behaviors of Facebook members. In general, "liking" a link posted by someone else requires the least amount of effort (one click) on behalf of the Facebook user, so it is logical that this was the most common form of sharing. While this item may be considered of questionable value to understanding sharing on Facebook, it was included in this measure given that users must take an action that displays, or shares, their interest in the link. Further, removal of this item would greatly reduce the predictive power of the model, given that it is by far the most common activity for users. Commenting on a link posted by someone else, the second most popular form of sharing, requires additional effort in that a user must type out their reaction, however it is the only other form of sharing that is not displayed on the Facebook user's timeline. "Re-sharing" a link posted by someone else, while requiring very little effort (just two clicks, arguably less effort than commenting), also leaves a record of the activity on the Facebook user's timeline. This creates a substantially greater sense of investment in the content of the link, as it contributes to the user's overall Facebook identity. Posting a link, and text along with that link, clearly requires the most effort and investment on behalf of the Facebook user, in that they must have found content from an external site that they feel is valuable enough in some way to share. This content is visible on their Facebook timeline, and it is displayed to their followers (although the specific followers may be limited by privacy settings). These results support research that has found individuals are more likely to interact with news information that is meaningful to their individual and social identity (Jenkins et al., 2013; Mersey, 2010).

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News consumption was a strong predictor of Facebook use, supporting the hypothesis that the more people seek out news overall, the more they will use social media sites such as Facebook in order to fulfill those informational needs. News consumption was also a significant predictor of PSOC on Facebook, supporting the hypothesis that those who are more informed through news outlets overall are more likely to feel that they are a part of the Facebook community. As discussed above, Facebook has become a significant space within which to consume news information, making it likely that heavy news consumers will find and connect with other like-minded individuals on the site. This indicates that overall news consumption is an important way that individuals form PSOC on Facebook.

In support of a substantial amount of research (see: Zhang, 2010), the current study found strong support for the relationship between system quality and satisfaction, information quality and satisfaction, satisfaction and SNS use, and SNS use and PSOC. However, since this study only examined participants using Facebook, future research should compare SNS design features that may enhance or inhibit news sharing (as well as the rest of the model) across other sites such as Twitter and Reddit. For example, immediacy of reciprocated communication (real-time vs. asynchronous), group norms, privacy settings, and anonymity of profiles may all impact the model proposed in this study. An examination of multiple platforms will be crucial to understanding not only the social-psychological characteristics that impact news sharing, but also the ways that the systems themselves impact the process.

The relationship between Facebook use and community-related outcome expectations did not behave as expected. Instead, a negative and insignificant relationship was discovered, indicating that amongst Facebook users, not everyone will develop expectations that sharing knowledge on Facebook would be helpful to the functioning, operation, knowledge development, and growth of the community. Indeed, research has found that not all Facebook users actually share a substantial amount of information, but rather simply visit the site as passive bystanders, or lurkers (A. Smith, 2014). Therefore, these results could indicate that within this website, not all users feel that sharing knowledge is important to themselves or the site as a whole, and therefore never develop community-related outcome expectations.

Lastly, as expected, no direct relationship existed between SNS use and news sharing. This confirms research that suggests that additional cognitive processes (i.e., the development of PSOC and community-related outcome expectations) must exist for Facebook users to engage with news on the website. For example, a study by Barker and colleagues (2013) found that connections within SNSs matter more to knowledge gaining than intensity of SNS use. They concluded that this was because the primary goal of SNS users is to "communicate and identify with peers, to keep in touch, and to learn about others' news, information and updates" (p.90), which in turn facilitates various types of learning.

Limitations

While this study provides valuable results, it does have some additional limitations. First, a larger and more representative sample would be ideal for future

research. The current study was limited to examining Midwestern undergraduates on Facebook. While this is certainly a valuable subset of the population to understand, future research should expand to examine a more diverse sample on multiple platforms.

In addition to the environmental-level SNS characteristics mentioned above, research should examine individual-level differences amongst participants that may impact the news sharing model. Research has found that younger adults tend to be less engaged with news on other platforms, but are as, or more, engaged than other age groups with news on Facebook (Mitchell & Page, 2013), making it likely that age will impact the model as a whole (Hermida et al., 2012). The extent of social identification with the group (Obst & White, 2005; Obst, Smith, & Zinkiewicz, 2002a; Obst, Zinkiewicz, & Smith, 2002b; 2002c) and identity construction and maintenance (Jenkins et al., 2013; H.-W. Kim, Zheng, & Gupta, 2011; Mersey, 2010) have been shown to impact PSOC and news behaviors. History with the group (Blanchard, 2004; Blanchard & Markus, 2004; Pretty et al., 1994), and interpersonal trust (Blanchard & Markus, 2004; Joinson et al., 2002; Ridings et al., 2002) have also been shown to positively influence PSOC. Additionally, personality traits such as neuroticism, extraversion, openness, agreeableness, and conscientiousness (Kirzinger et al., 2012; Kraut et al., 2002; Lounsbury et al., 2003; McCrae & Costa, 1999), need for affiliation, (Davidson et al., 1991), and self-monitoring (Snyder, 1974) have been shown to be related to PSOC and knowledge exchange online.

As discussed above, this study did not examine the news sharing model across multiple SNSs, nor did it differentiate between mobile, laptop and desktop use.

According to the Pew Research Center, 91% of all Americans own a cellphone, and 63% of all US cellphone users access the internet on their phones. Thirty-four percent of these individuals primarily use their cellphone to access the internet, as opposed to other digital devices (Duggan & Smith, 2013). Research has also shown that 40% of smartphone users access social networking sites such as Facebook on their phone, and 28% do so daily (Pew Research Center, 2013). Additionally, a recent study by the Media Insight Project (2014) found that 78% of smartphone owners, and 73% of tablet owners, used their device to get news in the last week. Further, they found that smartphone and tablet owners are approximately two and a half times more likely to get news through social media, and twice as likely to share news than those without the digital technologies. Their study also revealed that people who use or own more digital technologies enjoy following the news more. Given the popularity of accessing social media and news on mobile technologies, research should examine whether any differences exist in the behavioral and social-psychological processes amongst users of these technologies versus users of laptops and PCs in relation to engaging with news stories.

Importantly, this study did not ask participants to specify whether they actually follow through to read links to news stories they or others post on Facebook, or if their behaviors are based on simply seeing a headline without actually reading the content. Nor did it examine whether any relationship exists between frequency of seeing news from a professional news organization on Facebook and willingness to pay for a subscription to the print or online content from that organization. Additionally, this study did not

examine differences between clicking on and sharing news links shared by friends and family versus professional journalists. Future research should examine these issues.

The Social News System

This study contributes to a deeper understanding of how human beings make use of digital technologies and social media, and the implications of that use on the role of journalism in building an informed citizenry. It integrated three different research frameworks that have never before been brought together, providing researchers with a new way of conceptualizing behavioral and social-psychological reasoning behind news sharing online. Further research should work to confirm the validity of the model across multiple populations and contexts. Additionally, it advanced the understanding of community and its measures within an online context. Practically, this study is especially valuable for the practice of journalism, as it provides an answer to the question: why do audiences engage with news stories on social media?

Given this new media landscape, moving forward, professional journalists would be wise to carefully consider their relationship with audience members on social media. As discussed above, professional journalism is an industry built upon the notion of scarcity: of *access* to information, of *authority* to vet information, and of *ability* to disseminate information. No longer the case in today's media- and information-saturated world, journalists must now compete for the attention of audiences who are taking the news ecosystem into their own hands by actively participating in the production, analysis and circulation of news stories. Furthermore, while audiences were once commodified by the professional news industry as large and undifferentiated masses based largely on

geographic location, they are now defining their own boundaries, large and small, based on more than a neighborhood or city. Studies continue to reveal that audiences still value content produced by professional news organizations; however today's audiences choose to engage with the news as members of unique online communities of interest, and as such, do not want to be treated not as part of an invisible mass.

This research reveals that journalists would do well to spend time learning about and personally interacting with their audience members, as well as building their own SNS community. However, this is not something that will happen overnight. Facebook (and many other SNS) members consider themselves first and foremost a community; they are aware of other community members, they care about their wellbeing, and they are bound together by meaningful interactions and conversations. Some of these connections involve consuming and sharing professionally produced news stories. Evidence here suggests that news sharing on SNSs is not random: it is a reasoned behavior among individuals who feel they are a part of a community and in turn develop expectations that their knowledge sharing behaviors will benefit their fellow community members.

Importantly, reciprocity is key to community structure. Journalists who are working on building connections with their audience members should realize that SNSs are rife with opportunities to not only act as a journalist (e.g., providing news stories, asking questions about story leads, sources, and feedback), but to also act as an engaged and concerned community member. J.D. Lasica, founder and editorial director of Socialmedia.biz and a former editor of the Sacramento Bee, explains that "[i]t's all about

karma. The community won't share with you unless you've shared (your experiences,

your thoughts, your passions) with them. Don't just be a journalist. Be

human…Remember that Facebook is about sharing, not broadcasting" (as cited in

Betancourt, 2009). From these actions, community will grow, and with it, the connections

so valuable to the creation, circulation, and analysis of the news. As Amy Gahran (2009),

a contributor to the Poynter Institute, noted after attending a social media and journalism

seminar:

> "I noticed a strong focus on the question of how news organizations can monetize
>
> their social media efforts. While I believe these efforts are important and can earn
>
> money, I think it may be counterproductive to require them to primarily provide
>
> direct revenue. When news organizations engage communities directly and
>
> personally via social media, they're doing something far greater and ultimately
>
> more valuable and important than increasing ad revenue or otherwise selling
>
> something; they're building infrastructure" (para 5-6).

Social network sites are certainly valuable spaces for commercial activity, as

evidenced by Facebook's massive $2.34 billion Q4 ad revenue announcement at the end

of 2013 (Facebook, 2014). As a word of caution, however, we have seen cases of

backlash when audiences feel that commercial interests have violated their community-

related expectations. BTIG analyst Richard Greenfield, warned in late 2012 that

Facebook stock would lose value because "…we increasingly see brands violating

Facebook's social mission by deceptively trying to acquire Likes, so they can target you and all your friends going forward" (as cited in Tam, 2012).

Journalists will find that by considering audiences as unique members of unique communities, they will open themselves up to a new realm of audience engagement. Today's audience members do not want to be considered "targets," reduced to algorithms and data; they want to feel that they are heard, and that other community members reciprocate their knowledge sharing efforts. Just as it is concern for the community that motivates audience members to share their own stories, community related concerns should motivate journalists to participate on social media. They should continue to share news stories on these platforms, but they should also listen and give back to their audience, deciphering what they value and what they need.

Together, the overwhelming popularity of social network sites such as Facebook, their unique features (i.e., interactivity, publicly linked connections, and personal profiles), and the types of behaviors in which users engage (i.e., relationship building and maintenance, knowledge exchange) create a system of incredibly important social structures. Social network site communities provide a unique space for those of us who want to share news stories because of a sense of connection with other members, and for the rest of us to be exposed (intentionally or not) to those news stories deemed important by members of our own community. Most of those community members are friends and family, and some of them will likely be professional journalists who have developed strong connections with us as audience members. Social media have become something more than spaces to share cat photographs. We have embraced them as a new public

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sphere, where citizens share and consume professionally produced news in order to become more socially and politically aware as members of a democratic society and members of this new social news system.

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Appendix A

Use Items*

Concept	Item	Item wording	Mean	Std. Dev.	Factor Loading
FR	US1	How often do you sign on to Facebook? (*recoded to 5-point Likert-type response option format ranging from 1 = Less than once per month to 5 = Multiple times a day*)	4.55	.75	.98
DR	US2	During an average day, how many minutes do you spend on Facebook? (*Recoded to 5-point Likert-type response ranging from 1 = < 0.5 hours to 5 = > 2 hours*)	2.02	1.11	.54

FR = frequency, DR = duration

Overall News Consumption Items*
6-point Likert-type response option format ranging from 1 = Never to 6 = Multiple times a day

Concept	Item	Item wording	Mean	Std. Dev.	Factor Loading
NC	NC1	International or national news websites	3.34	1.42	.18
NC	NC2	Local news websites	3.06	1.30	.20
NC	NC3	News aggregation websites	2.65	1.53	.15
NC	NC4	Websites of individual bloggers	2.49	1.47	.27
NC	NC5	An individual or organization on Facebook, including friends and family	4.15	1.28	.91
NC	NC6	A professional news organization or journalist on Facebook	3.08	1.62	.79
NC	NC7	An individual or organization on Twitter, including friends and family	3.87	1.81	.48
NC	NC8	A professional news organization or journalist on Twitter	3.56	1.90	.40
NC	NC9	Newspapers	3.07	1.29	.09
NC	NC10	Magazines	2.65	1.11	.27
NC	NC11	Television	3.72	1.26	.15
NC	NC12	Radio	2.92	1.42	-.13

Concepts based on Hermida (2012); NC = News Consumption

News Sharing Items*
6-point Likert-type response option format ranging from 1 = Never to 6 = Multiple times a day

Concept	Item	Item wording	Mean	Std. Dev.	Factor Loading
NS	NS1	How often do you post a link to a news article on Facebook?	2.03	1.01	.76
NS	NS2	How often do you post a comment, excerpt or evaluation along with that link on Facebook? (*contingent upon a 2 – 6 response to NS1*)	2.03	1.17	.68

NS	NS3	How often do you "re-share" a link to a news article posted by someone else on Facebook?	2.06	1.06	.88
NS	NS4	How often do you "like" a link to a news article posted by someone else on Facebook?	3.13	1.26	.92
NS	NS5	How often do you comment on a link to a news article posted by someone else on Facebook?	2.22	1.13	.81

*NS = News Sharing on Facebook

Psychological Sense of Community Items*
5-point Likert-type response option format ranging from 1 = Strongly Disagree to 5 = Strongly Agree

Concept	Item	Item wording	Mean	Std. Dev.	Factor Loading
Overall PSOC composite reliability (α = .83)			*3.19*	*.64*	
NF	PSOC1	I can get what I need in Facebook.	3.33	.93	.68
NF	PSOC2	Facebook helps me fulfill my needs.	3.09	.96	.75
MB	PSOC3	I feel like a member of Facebook.	3.54	.88	.71
MB	PSOC4	I belong in Facebook.	3.07	.94	.74
IN	PSOC5	I have a say about what goes on in Facebook.	2.53	1.00	.53
IN	PSOC6	People in Facebook are good at influencing each other.	3.41	1.02	.47
EC	PSOC7	I feel connected to Facebook.	3.27	.98	.82
EC	PSOC8	I have a good bond with others in Facebook.	3.27	.91	.71

Concepts based on McMillan and Chavis (1986)*; Items based on Peterson and colleagues'* (2008) *Brief Sense of Community Scale; NF = Needs fulfillment; MB = membership; IN = influence; EC = emotional connection*

SNS Information Quality, System Quality, and Member Satisfaction Items*
5-point Likert-type response option format ranging from 1 = Strongly Disagree to 5 = Strongly Agree

Concept	Item	Item wording	Mean	Std. Dev.	Factor Loading
IQ	IQ1	The information provided by the Facebook community is accurate.	2.70	.81	.78
IQ	IQ2	The Facebook community provides me with a complete set of information.	2.20	.87	.89
IQ	IQ3	The information from the Facebook community is always up to date.	2.82	1.06	.53
IQ	IQ4	The Facebook community provides me with all the information I need.	2.03	.89	.76
SQ	SQ1	The Facebook community allows information to be readily accessible to me.	3.62	.87	.73
SQ	SQ2	The Facebook community can be adapted to meet a variety of needs	3.56	.81	.85
Overall member satisfaction composite reliability (α = .80)			*3.41*	*.71*	
MS	MS1	I am satisfied with my interactions with the Facebook community.	3.58	.79	.85
MS	MS2	The Facebook community's information content meets my needs.	3.08	.93	.82
MS	MS3	Overall, I am satisfied with the Facebook community.	3.57	.81	.86

Community-Related Outcome Expectation Items*
5-point Likert-type response option format ranging from 1 = Strongly Disagree to 5 = Strongly Agree

Concept	Item	Item wording	Mean	Std. Dev.	Factor Loading
Overall community-related outcome expectations composite reliability (α = .90)			*3.13*	*.81*	
OE	OE1	Sharing knowledge would be useful to the successful functioning of the Facebook community	3.12	.90	.89
OE	OE2	Sharing my knowledge would help the Facebook community continue its operation in the future	3.09	.94	.87
OE	OE3	Sharing my knowledge would help the Facebook community accumulate or enrich knowledge	3.20	.94	.89
OE	OE4	Sharing my knowledge would help the Facebook community grow	3.12	.95	.85

Items based on Chiu, et al. (2006): OE = community-related outcome expectations

Appendix B

Matrix of item loadings and cross loadings

Construct	IQ	SQ	NC	MS	US	PSOC	OE	NS
IQ1	.78	.17	.07	.29	.08	.25	.17	.04
IQ2	.89	.19	.16	.33	.08	.35	.24	.17
IQ3	.53	.16	.08	.20	.05	.18	.18	.06
IQ4	.76	.19	.14	.28	.04	.38	.28	.14
SQ1	.23	.73	.22	.42	.21	.32	.31	.20
SQ2	.15	.85	.12	.49	.16	.37	.23	.15
NC1	-.10	.07	.18	-.02	-.01	.06	.09	.27
NC2	.03	-.00	.20	.02	-.04	.06	.08	.20
NC3	.03	-.06	.15	-.02	-.08	-.01	.16	.25
NC4	.06	.01	.27	-.05	-.06	.04	.14	.34
NC5	.12	.19	.91	.18	.34	.31	.15	.38
NC6	.10	.14	.79	.13	.20	.24	.18	.45
NC7	-.02	.08	.48	.05	.16	.14	.10	.24
NC8	-.06	.06	.40	-.00	.09	.07	.10	.28
NC9	-.02	-.00	.09	-.06	-.00	-.04	.09	.15
NC10	.09	.03	.27	.07	.05	.10	.11	.16
NC11	.05	.02	.15	.10	.04	.09	.03	.03
NC12	-.10	-.04	-.13	.02	-.04	-.04	-.08	-.06
MS1	.16	.53	.09	.85	.24	.51	.28	.11
MS2	.45	.47	.20	.82	.22	.54	.30	.18
MS3	.31	.46	.18	.86	.26	.59	.19	.14
US1	.09	.22	.33	.29	.98	.40	.09	.18
US2	.05	.13	.24	.11	.54	.22	.05	.19
PSOC1	.33	.35	.26	.50	.32	.68	.22	.22
PSOC2	.28	.38	.26	.51	.27	.75	.28	.24
PSOC3	.17	.36	.21	.47	.30	.71	.26	.12
PSOC4	.27	.28	.28	.48	.31	.74	.28	.12
PSOC5	.32	.14	.17	.28	.13	.53	.33	.16
PSOC6	.20	.26	.11	.30	.18	.47	.28	.15
PSOC7	.27	.28	.29	.50	.4	.82	.28	.20
PSOC8	.31	.31	.22	.45	.25	.71	.34	.27
OE1	.29	.28	.19	.27	.06	.38	.89	.34
OE2	.20	.30	.17	.25	.07	.32	.87	.28
OE3	.22	.30	.16	.25	.07	.33	.89	.29
OE4	.27	.29	.12	.29	.11	.39	.85	.24
NS1	.07	.13	.34	.08	.15	.17	.28	.76
NS2	.06	.08	.34	.05	.13	.15	.22	.68
NS3	.13	.16	.37	.14	.13	.24	.32	.88
NS4	.13	.22	.46	.18	.22	.26	.26	.92
NS5	.11	.11	.35	.06	.16	.21	.29	.81

Note: sample size = 344; IQ = information quality, SQ = system quality, NC = news consumption, MS = member satisfaction, US = SNS use, PSOC = psychological sense of community, OE = community-related outcome expectations, NS = news sharing

Appendix C

News Consumption, Frequency (percentage)

	Never	Less than once a month	Monthly	Weekly	Daily	Multiple times per day
International or national news websites	40 (12)	70 (20)	63 (18)	97 (28)	53 (15)	21 (6)
Local news websites	46 (14)	79 (23)	83 (24)	87 (25)	42 (12)	7 (2)
News aggregation websites	113 (34)	65 (19)	59 (17)	56 (16)	37 (11)	14 (4)
Websites of individual bloggers	129 (38)	64 (19)	49 (14)	64 (19)	31 (9)	7 (2)
An individual or organization on Facebook, including friends and family	15 (4)	28 (8)	41 (12)	109 (32)	108 (31)	43 (13)
A professional news organization or journalist on Facebook	87 (25)	51 (15)	58 (17)	68 (20)	57 (16)	23 (7)
An individual or organization on Twitter, including friends and family	72 (21)	15 (4)	33 (10)	65 (19)	83 (24)	76 (22)
A professional news organization or journalist on Twitter	89 (26)	32 (9)	31 (9)	48 (14)	78 (23)	66 (19)
Newspapers	46 (13)	82 (24)	70 (20)	97 (28)	46 (13)	3 (1)
Magazines	65 (19)	82 (24)	120 (35)	63 (18)	13 (4)	1 (0)
Television	18 (5)	50 (15)	58 (17)	120 (35)	79 (23)	19 (6)
Radio	77 (22)	63 (18)	75 (22)	74 (22)	50 (15)	5 (1)

Note: sample size = 344

News Sharing on Facebook, Frequency (percentage)

	Never	Less than once a month	Monthly	Weekly	Daily	Multiple times per day
Post a link	126 (37)	122 (35)	59 (17)	34 (10)	3 (1)	0 (0)
Post a comment, excerpt or evaluation along with link	152 (44)	92 (27)	49 (14)	38 (11)	13 (4)	0 (0)
Re-share a link posted by someone else	132 (38)	103 (30)	72 (21)	31 (9)	5 (1)	1 (0)
Like a link posted by someone else	40 (12)	71 (21)	85 (25)	112 (33)	24 (7)	12 (3)
Comment on a link posted by someone else	109 (32)	115 (33)	70 (20)	39 (11)	8 (2)	3 (1)

Note: sample size = 344

Appendix D

Direct, Indirect and Total Effects (Original Model)

Relationships	Direct Effects	Indirect Effects	Total Effects
IQ → MS	.25		.25
IQ → US		.06	.06
IQ → PSOC		.15	.15
IQ → OE		.06	.06
IQ → NS		.02	.02
SQ → MS	.52		.52
SQ → US		.12	.12
SQ → PSOC		.32	.32
SQ → OE		.13	.13
SQ → NS		.04	.04
NC → US	.30		.30
NC → PSOC	.16	.06	.22
NC → OE		.07	.07
NC → NS	.39	.03	.42
MS → US	.23		.23
MS → PSOC	.57	.04	.61
MS → OE		.25	.25
MS → NS		.09	.09
US → PSOC	.19		.19
US → OE	-.09	.08	-.01
US → NS		.01	.01
PSOC → OE	.45		.45
PSOC → NS	.04	.11	.15
OE → NS	.24		.24

Note: sample size = 344; IQ = information quality, SQ = system quality, NC = news consumption, MS = member satisfaction, US = SNS use, PSOC = psychological sense of community, OE = community-related outcome expectations, NS = news sharing