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Wired to bond: The influence of computer-mediated communication on relationships

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Wired to Bond:

The Influence of Computer-Mediated Communication on Relationships

Jennifer L. Cline

A dissertation submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

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Dedication

This dissertation is lovingly dedicated to my husband, Mark, and my daughter, Jessica. Their support, encouragement, and constant love have sustained me every step of this journey.

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I am so grateful to everyone, who directly or indirectly, lent a helping hand in the completion of this project.

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Abstract

The purpose of this study was to examine young adults' use of social media, qualities of their interpersonal relationships, and the intersection of the two. This primarily qualitative research study set out to investigate the qualities of relationships under the theoretical umbrellas of attachment, existentialism, and neuroscience. In particular, this grounded theory study examined how relationships might differ in on-line and face-to-face interactions, and answered the broad question, "What is the impact of increased engagement with others through computer-mediated communication, which involves less sharing of physical space and real time, on one's perception of others and self?"

The research design was a primarily qualitative study with an embedded quantitative survey. Participants were recruited from the undergraduate student body at James Madison University, a convenient and purposeful sample. The study was conducted in three phases, using multiple sources of documentation: focus groups, on-line questionnaires, and individual interviews. The qualitative data analysis resulted in a rich, descriptive theory regarding computer-mediated communication use among young adults and its impact on the development and maintenance of meaningful relationships. Out of the data emerged eight themes: Expressed Preference for Face-to-Face Social Interactions, Tacit Preference for On-line Social Interactions, Qualities of Intimacy, Expressed Motivations for Social Media Use, Unwritten Rules Guiding Social Media Use, Tacit Motivations for Social Media Use, Self Perceptions, and Awareness of Others.

CHAPTER I

Introduction

A nineteen-year-old college student walked into my counseling office and excitedly relayed that she has met a new man and believes that he may be "relationship material." When I inquired about the details of their encounter, she revealed that she has actually only met and communicated with him on Facebook. A university professor told a story of observing two students talking before class. One student said to the other, "I sent you a birthday message on Facebook," but did not wish him happy birthday in the moment. A college resident hall director refereed a disagreement between residents on his hall. During the arbitration it came to light that the roommates had sat in their shared room, back-to-back, and cyber-argued over Facebook.

All of these stories involved computer-mediated communication, specifically the use of the social networking site, Facebook. Facebook is an on-line Internet community where individuals interact and share information. One fundamental feature includes a person's profile, which displays customized information such as interests, education, work, and contact information. Individuals communicate on Facebook through chats, personal messages, wall postings, pokes, and status updates. Interactions can be enhanced by posting photos or videos, and by joining on-line groups. Facebook is the most highly visited social media site in the world (www.newsroom.fb.com/Key-Facts).

Background of the Study

Our adoption of computer-mediated communication technology is happening at astronomical speed. It took 38 years before 50 million users adopted radio, 13 years for television, and four years for the Internet to reach the same number of users. Facebook,

however, added 100 million users in less than nine months (www.cleancutmedia.com/internet/social-media-statistics-video-growth-impact). As of today, Facebook has more than one billion active users and on any given day, more than 60% of those users access the site (www.newsroom.fb.com/Key-Facts). A 2008 survey (Sheldon) reported that 93% of college students had a Facebook account and most users spent an average of 47 minutes every day on the site. A more recent study confirmed those findings, providing statistics (Sheldon, Abad, & Hinsch, 2011) that indicated over 95% of college students had a Facebook account and 78% of them accessed their account at least twice per day.

Computer-mediated communication, such as Facebook, has distinct characteristics that make it a qualitatively different type of interaction than traditional face-to-face conversation. Computer-mediated communication is characterized by the utilization of technology to exchange information at any time, with any one, with ease, convenience, and at minimal cost. It requires neither shared physical space nor a shared sense of time. It has restricted physical and nonverbal components and is primarily text oriented (Kang, 2007).

Kang (2007) described these distinctions under the construct of disembodiment, which is the "transcendence of body constraints in cyberspace" (p. 475). He went on to state that the decline in nonverbal cues leads to more intense and intimate self-disclosures and less social responsibility than in face-to-face communication. His research strengthened Caplan's (2003) research findings regarding the perceived benefits of computer-mediated communication. Users described computer-mediated communication as easier because it required less interpersonal sophistication. In addition, it was

perceived to be less risky than face-to-face communication because it offered greater anonymity, greater control over self-presentation, less social responsibility toward others, and less social risk. Finally, computer-mediated communication was seen as more exciting due to more intense and intimate self-disclosures. These findings were consistent with themes from van Manen (2010), who reported that shy or less verbal young people found computer-mediated communication to be a safer method for communicating because it did not require engaging in extended conversation and allowed people to feel in touch with others without having to be too close. He described this phenomenon as a "virtual experience of present absence" (p. 1027).

van Manen (2010) took a phenomenological approach to capture the essence of some ineffable distinctions, such as privacy and on-line intimacy, within the context of Facebook. He stated that having secret, unrevealed parts of oneself is part of healthy psychological development. Furthermore, intimacy is created between individuals when there is a purposeful revelation of those secret parts of oneself within the context of a trusted relationship. He proposed that social media sites, such as Facebook, "exteriorize, reveal, and wear away what was secret and what was personal, what was depthful and what was innermost – now for all to see" (p. 1024). Therefore, he suggested that social media could change the meaning and significance of privacy and, more importantly, the experience of intimacy.

Although computer-mediated communication has inarguably allowed for the dissemination of information and the creation of connection with others that would have been otherwise unfeasible, it has also raised considerable concern about its impact on the authentic human experience. Ironically, in a technologically advanced world where we

are able to keep in touch at all times with all people, citizens of the United States are still reporting feeling alone, disconnected, and without meaningful interactions (McPherson, Smith-Lovin, & Brashears, 2006). The General Social Survey was conducted within the United States to collect data about confidants, the people with whom Americans discuss important matters. In 1985, before prevalent use of computer-mediated communication, participants reported having a mean and mode of three confidants. However, in 2004 when the data were replicated, participants reported a decrease to a mean of two confidants and the most commonly offered response was zero confidants. These data demonstrate that, despite the use of communicative technology to connect, people report feeling increasingly socially isolated.

Purpose of the Study

The previous literature indicates that computer-mediated communication may not be a benign technology; instead, it may have a negative impact on our ability to create and maintain meaningful interpersonal connections. However, our understanding of the potential impact it may have on our interpersonal relationships remains unclear, as the current research on the social consequences of computer-mediated communication provides contradictory findings (Ellison, Steinfield, & Lampe, 2007; Howard, Rainie, & Jones, 2001; Hu & Ramirez, 2006; Kraut et al., 1998; Kraut et al., 2002; Nie & Erbring, 2002).

The relatively small body of literature regarding the impact of computer-mediated communication on the ability to make meaningful interpersonal connections is in its infancy and is limited in several ways. First, previous research questions and designs have been drawn from existing bodies of knowledge, such as television media research

and addictions literature, and then were modified to apply to computer-mediated communication (Kandell, 1998; Papacharissi & Rubin, 2000; Pearson, Carmon, Tobola, & Fowler, 2010; Praterelli & Brown, 2002; Rubin, Perse, & Barbato, 1988). In previous studies, researchers began with a theory, modified from another body of research, and set out to prove or disprove it. The current study utilizes a grounded theory research design that is relevant and appropriate to this new and unique interactive technology, by beginning with an area of study and allowing relevant material to emerge from the data. Second, the previous research has been conducted from a non-theoretical perspective (Caplan, 2003; Sheldon, 2008), which has led to a rudder-less exploration and a piece-meal understanding of the phenomenon. Exploring the impact of computer-mediated communication under the theoretical umbrellas of attachment, existentialism, and neuroscience, organizes the data into a meaningful framework and provides the theoretic underpinnings to support the importance of this research. Finally, the research that exists is primarily quantitative in nature and qualitative research is the most holistic method of inquiry for an emerging phenomenon (Douglas et al., 2008). Therefore, at the present time, qualitative methodology appears to be the best method for answering questions about the impact and influence of social media on the development and maintenance of interpersonal relationships.

Significance of the Study

The significance of this study is of utmost importance as it contributes valuable insight and understanding into the interaction between computer-mediated communication and our interpersonal connections. This study addresses some of the gaps and inadequacies in the current body of research. Rather than drawing from

existing bodies of knowledge that may share only a few characteristics with computer-mediated communication, this study works from the ground capturing young adults' lived experience with computer-mediated communication and its effect on the development and maintenance of meaningful relationships. Additionally, the theoretical underpinning that anchors this emerging theory of social media use is understood from the primary point of consensus among the perspectives of attachment, existentialism, and neuroscience, all of which emphasize that our ability to make meaningful interpersonal connections is of profound importance. Humans are inherently social, hardwired within their brains; their social interactions impact everything from health to intellect (Cozolino, 2010). Therefore, any technology that potentially impacts our ability to meaningfully connect with others, such as computer-mediated communication, is important to study and to understand. The results of this study will result in the development of a theory of social media use, emerging directly from young adult's lived experiences, which will provide important richness and direction that has been lacking in previous studies.

Definition of Terms

Computer-mediated communication. Computer-mediated communication was an unintentional byproduct of computer networking. When computers were linked together for data transmission, users discovered that they were able to send text messages to one another as well (Walther, 1996). Therefore, computer-mediated communication is defined as any communicative transaction that occurs through the use of two or more computers (Walther & Burgoon, 1992). The term was originally coined to describe electronic mail and later, computer conferencing (Madrid & Wiseman, 2003). It has traditionally been used to describe communications that occur via a computer, including

but not limited to e-mail, blog, instant message, video chat, and social networking. More recently it has been used to describe any text-based communication, including text messaging and Internet access via cellphone. For purposes of this study, the broadest definition is used; therefore the term computer-mediated communication is used in reference to both computer-mediated and cellphone-mediated communication.

Social networking site. A social networking site is defined as a web-based service that provides a virtual community for people to share their daily activities and interests via their profile, with family and friends, with whom they have virtual connections (boyd & Ellison, 2008). There are social networking sites for dating, friendship, career, and more. Facebook, a site for socializing created in 2004, is the most frequented social networking site and is the primary focus of the current study. Facebook allows users to create an on-line profile, accumulate friends who can then view and post on one another's profile. Users can learn about each other's hobbies, interests, religious and political viewpoints, activities, and relationship status through one another's profile (Ellison et al., 2007). It is important to note that survey participants answered questions specific to their use of Facebook, however, during follow-up interviews with those participants, they included all of their social media use, which commonly included sites other than Facebook, such as Twitter, Tumblr, Pinterest, LinkedIn, and Instagram. Therefore, for purposes of this study, the term social media is used to include a variety of social networking sites. However, when referencing Facebook specifically, it is referred to by name.

Theoretical Framework

This qualitative research study examines young adults' use of social media, qualities of their interpersonal relationships, and the intersection of the two, under the theoretical umbrellas of attachment, existentialism, and neuroscience. Rather than viewing these perspectives as three separate and competing entities, this study focuses on the commonalities found between the theories and considers their combined contributions as a robust theoretical anchor. The three theories have informed our thoughts about the authentic human condition across an enormous span of time, from 19th century existentialism to cutting edge neuroscience. Additionally, these theories do not compete with one another, but instead converge in agreement regarding the fundamental importance of human connection.

Adult attachment theory. Attachment theory research asserts that the need for human connection through meaningful interaction is of critical importance for a person's physical and psychological health and growth. Observers have been noting the importance of interpersonal connection for centuries (Johnson, 2008). In 1760, a Spanish bishop noticed that although children in foundling homes were sheltered and fed, they still regularly died from sadness. Orphaned children within the United States, as late as the 1930s and 1940s, continued to die when they were denied touch and emotional contact.

A more recent example can be found in the horrifying conditions of the Romanian orphanages, discovered after the Communist government fell in 1989 (Rutter, 2002). Caregivers in the orphanages had been instructed to care for the physical, but not the emotional, needs of the children by changing diapers and propping bottles in cribs.

Tragically, this was not sufficient care for the orphans and they were found to be physically and emotionally stunted. Observers of these conditions came to the conclusion that healthy human development requires the physical touch and emotional attention of caregivers.

These are extreme conditions of deprivation; however, John Bowlby along with Mary Ainsworth, the founders of attachment theory, agreed that the quality of connection to loved ones is key to healthy childhood development (Bretherton, 1992; Fraley, 2010). In an effort to understand the distress experienced by infants when separated from their caregivers, Bowlby (1958) developed a theory of attachment. He proposed that infant distress behaviors, such as crying and searching, were attempts to maintain proximity with caregivers. Further, he postulated these were adaptive responses on the part of the infant since the infant is dependent on the caregiver for care and protection. Bowlby suggested that the infant essentially asks if the caregiver is accessible and attentive. If the answer is yes, then the infant feels loved and secure and is free to explore and socialize. However, if the answer is no, then the infant feels anxious and attempts to reconnect with the caregiver until they are either successful or worn down by their efforts (Bowlby, 1958).

Mary Ainsworth (Ainsworth & Bell, 1970) elaborated on Bowlby's basic attachment theory by formally studying infant-parent separations. Ainsworth found that approximately 60% of children when separated from their caregiver, responded as Bowlby predicted and she described these children as securely attached. In addition to Bowlby's normal attachment style, she discovered two other attachment styles. About 20% of the children she observed were distressed when separated from their caregivers,

however, they were difficult to soothe when reunited and she described these children's attachment style as anxious-resistant. The final 20% of children appeared not be distressed by the separation and actively avoided reconnection with the caregiver. She described these children's attachment style as avoidant. Finally, Ainsworth was able to correlate the differences in attachment styles with infant-parent interpersonal interactions during the first year of life (Ainsworth & Bell, 1970; Bretherton, 1992; Fraley, 2010).

Interestingly, there is growing scientific research over the past two decades that extends Bowlby and Ainsworth's theories of attachment beyond the bond between caregiver and child to the biologically hardwired need for connection in relationships among adults. Hazan and Shaver (1987) were the first to extend attachment theory, as proposed by Bowlby and Ainsworth, to adult relationships. They proposed parallels between adult romantic relationships and the infant-parent bond, finding that both children and adults feel secure when their significant other is nearby and accessible and both feel insecure when the other is inaccessible. Additionally, they found that adults exhibited the same variations in attachment style that Ainsworth had observed in her infant studies. They concluded, "The attachment-theory approach to romantic love suggests that love is a biological as well as a social process" (p. 523).

Since then, numerous studies show that interpersonally connected adults are affected both psychologically and physiologically by the quality of their attachments. For instance, a study by Rohrbaugh, Shoham, and Coyne (2006) looked at the effects of marital quality on the survival rates of patients with heart failure. They found that marital quality was the most important factor in predicting long-term survival of patients with heart failure. These results were independent of illness severity and more potent than

other protective factors. Their investigation replicated results reported in an earlier study (Rohrbaugh et al., 2004) with congestive heart failure patients, which found that a spouse's confidence in the partner's ability to recover, along with overall relationship quality, was a significant predictor of the patient's survival rate.

A fascinating study by Coan, Schaefer, and Davidson (2006) found that simply holding the hand of a loving partner mediates the experience of stress and pain. In their study, female participants engaged in an MRI were told that when a small red light flashed they might receive a small electrical shock. This information lit up in the stress centers of the brain. However, when a loving partner held the participant's hand, the brain registered less stress. In addition, when they were shocked, they also reported a lower experience of pain. The effect of the handholding was the strongest within the happiest couples.

Much of the evidence regarding adult attachment is supported by both attachment theory and neuroscience. The following study is a prime example of how attachment (or its failure) impacts the brain. A study by Eisenberger, Liberman, and Williams (2004) revealed evidence that physical and social pain overlap in the neural circuitry of the brain. In other words, social isolation was found to register as pain within the brain in the same way that physical pain was experienced. The researchers summarized by stating that, "evolution's solution to ensured nurturance might have unintentionally produced a lifelong need for social connection and a corresponding sense of distress when social connections are broken" (p. 298).

Existential theory. Existentialism developed first as a philosophical orientation in Europe and Russia and spread through philosophical and literary writers of the 19th

century. In a reaction against the determinism of psychoanalytic theory and behaviorism, European theorists worked to merge the current understanding of psychotherapy with the developing existential worldview. Existential philosophy developed during grim political, economic, and social conditions and that context flavors the existential emphasis. However, as existential philosophy translated into theory, it began to use the grim human conditions of contemporary life, such as isolation, alienation, and meaninglessness as a foil to contrast and develop subjective aspects of the internal experience that ultimately lead to the development of meaning, belonging, and hope (Corey, 2001).

The industrial revolution had left people feeling without connection, the conflict in the world left people without a sense of hope, and the rise of imperialism left people feeling like small misunderstood and unimportant cogs in a wheel that did not care about the plight of the individual. Simultaneously, the psychological theories of the time, namely psychoanalysis and behaviorism, emphasized determinism which left the person feeling even more dehumanized. Interestingly, although existentialism was a philosophy born in the 19th century, it continues to be timely and relevant in understanding the human condition in the 21st century. We have furthered our sense of disconnection, as machines are now capable of replacing humans in so many ways, even mediating our communication processes.

Existentialism lamented the loss of meaningful connection, arguing that humans are essentially relational beings and that our very identity is socially constructed. This argument could not be made any better than by the great religious thinker and philosopher, Martin Buber. Buber (1958) contended that humans have two basic modes

through which they can engage the world. The first mode he called experience, which is the mode of I-It. In this mode, one engages with the world as an objective observer rather than as a participant, involving only part of oneself and the experience involves distance between I and It. The second mode, which he stated is vital to our authentic human experience, is called encounter, which is the mode of I-Thou. In this mode, one engages in relationship with the object or person encountered and both parties are transformed by the relationship between them. Within the encounter, a person engages with one's entire self and there is no distance between I and Thou. Ultimately, Buber argued that humans can learn about the world through I-It experiences. However, those experiences will only allow for survival; authentic existence requires engagement with others through I-Thou encounters.

Neuroscience. Neuroscience is the scientific study of the nervous system and provides the third leg of theoretical support to the current study. Neuroscience, like attachment theory and existentialism, supports the premise that our interpersonal relationships are of profound importance. Over the recent decades, neuroscientists have come to the conclusion that they cannot observe the individual brain in isolation; instead observations must be expanded to include social relationships as they have such profound impact on the development of the brain (Fishbane, 2007). Our brains are formed through the attunement and attentiveness of others. In fact, Cozolino (2006) stated, "The brain is an organ of adaptation that builds its structures through interactions with others. …There are no single brains" (p. 6). He further argued, "The individual neuron or single human brain does not exist in nature. Without mutually stimulating interactions, people and

neurons wither and die" (p. 11), a fact that was evidenced within the attachment studies previously reviewed.

Neuroscientists are unraveling how biological systems implement social processes and behavior; positing that nature and nuture are recursive systems. Cozolino (2010) stated that the intersection of neuroscience and relationship is mediated by our evolutionary past (representing our nature) through the development, organization, and functioning of our nervous system as well as by our social relationships (representing our nurture) through our positive and negative interactions with others that become encoded in our neural infrastructure. In other words, experience shapes the brain by altering the connections between neurons (Fishbane, 2007). Cozolino (2010) argued that the brain is a social organ connected to others via the social synapse. Furthermore, humans have primitive reflexes, such as eye-gaze and mimicry that jump-start the attachment process. Humans are biologically driven to get and stay connected. He contended that loving connections and secure interpersonal attachments build healthy brains while neglectful or insecure attachments result in vulnerable brains. Neuroscience conclusively supports that we are biologically wired to connect.

This study focuses on the commonalities found between the perspectives of attachment, existentialism, and neuroscience that together form a robust theoretical anchor. These three theories converge in agreement to inform our thoughts about the authentic human condition and the fundamental importance of human connection across time. This theoretical anchor provides a framework for understanding the relevance of important issues relating to the development and maintenance of authentic human

connection – disembodiment, corporality, resonance, attunement, the "I-Thou"
relationship, inter-subjectivity, self-awareness, meaning making, and empathy.

Research Questions

Based on the theories of attachment, existentialism, and neuroscience, this study
is anchored by the theoretical premise that our ability to make meaningful interpersonal
connections is of profound importance to our psychological health. To that end, any
technology that impacts our ability to meaningfully connect with others, such as
computer-mediated communication, is important to explore. Therefore, this grounded
theory study examines how relationships might differ in on-line and face-to-face
interactions, and attempts to answer the following research questions:

1. How do young adult users of computer-mediated communication differentiate
   between *use* of and *preference* for computer-mediated communication in an
   effort to understand how computer-mediated communication might *supplant*
   rather than *supplement* face-to-face interactions?

2. Is there a difference in the *quality* of relationship in young adults' experience
   of on-line versus face-to-face interactions?

3. What is the impact of increased engagement with others through computer-
   mediated communication, which involves less sharing of physical space and
   real time, on one's perception of others and self?

Limitations of the Study

This study has several limitations. The participant sample is small and drawn
from a single University's undergraduate population, while congruent with qualitative
methodology, it limits generalizability of the results. Additionally, due to the sampling

method, purposeful and convenient, the sample itself is not representative of the larger

University population from which it was drawn, a further limitation on generalizability.

Furthermore, within the second phase survey, many questions required participants to

choose a categorical answer rather than the freedom of providing a continuous variable

response, eliminating nuanced answers that may have emerged within the data. Finally,

within qualitative inquiry, the researcher is the primary tool of investigation, and as

Merriam (2009) stated, the data are unable to speak without the help of an interpreter and

one cannot observe or measure a phenomenon without changing it. Therefore, it is

impossible to consider that the research presented, from the questions asked to their

ultimate interpretation, have not been impacted by the researcher. In Chapter III, issues

regarding data integrity will be discussed in more detail, but it should be considered a

limitation of the study at the outset.

Delimitations of the Study

The delimitations of this study are self-imposed boundaries set on the purpose and

scope of the study. The first delimitation occurred within the second phase of the study,

during which participants completed an on-line electronic survey regarding their social

media use. Providing participants with an electronic survey likely increased the number

of responses received. Additionally, allowing participants to complete the survey within

the privacy of their dormitories or homes may have encouraged responses that were more

honest. However, not requiring participants to come in person to complete the survey

may have decreased the level of time and personal investment that participants invested

in the research. Finally, there is some irony in surveying participants about their on-line

social media behaviors through an on-line survey. Naturally, the restrictions of on-line social interactions were present and interfered with the data collection process.

The second delimitation of the study related to the timing of the data collection. Participants in the study were recruited through the research participant pool at James Madison University. In order for participants to receive credit for their participation, all of the data collection had to occur within one semester. Therefore, the first phase data and the second phase data were collected simultaneously within the first six weeks of the semester. The data from the first phase were used to develop interview questions and the data from the second phase were used to select participants for the third and final phase of data collection, leaving only five weeks to complete the interviews before semester end. Ideally, some of the third phase interview transcripts would have been coded and interview questions revised before conducting the remaining interviews. Due to time constraints, interviews were informally reviewed before revision of protocols and all of the interviews were conducted before any formal coding began.

Organization of the report

This research report is presented in five chapters. Chapter I includes the background of the study, purpose of the study, significance of the study, definition of terms, theoretical framework, research questions, limitations and delimitations of the study. Chapter II presents a review of the literature, including problematic Internet use, motives and perceived benefits of on-line social interaction, impacts of on-line social interaction on interpersonal relationships and aspects of psychosocial well-being, and the need for a theory. Chapter III describes the methodology used for this research study. It includes research design and analysis, selection of participants, data collection process,

data analysis, and data integrity. Chapter IV presents the study's findings including

demographic information and the results of the quantitative and qualitative data analyses

for each of the three research questions. Chapter V provides discussion of the findings

along with relevant research, implications for practice, recommendations for further

research, and conclusions.

CHAPTER II

Review of the Literature

This chapter presents the rationale for conducting research on the use of social media, a specific form of computer-mediated communication, and its impact on one's ability to connect with others in a meaningful way. Over the past twenty years, limited research has been conducted on the social consequences of computer-mediated communication. Previous research indicates that computer-mediated communication may not be a benign technology; instead, it may have a negative impact on our ability to create and maintain meaningful interpersonal connections. However, our understanding of the potential impact it may have on our interpersonal relationships remains unclear, as the current research on the social consequences of computer-mediated communication presents contradictory findings (Ellison et al., 2007; Howard et al., 2001; Hu & Ramirez, 2006; Kraut et al., 1998; Kraut et al., 2002; Nie & Erbring, 2002).

The literature review process in a qualitative study is different than a traditional quantitative literature review (Merriam, 2009). While qualitative scholars agree that a researcher should be well read in the area of interest, they also posit that the researcher should not be unduly influenced by previous research. Rather than mold the emerging data to previous studies and models, the qualitative researcher is instructed to remain open to new ideas and theories. In an effort to balance the need to be informed with the need to remain open, a broad literature review of computer-mediated communication was conducted prior to beginning the research project and is presented in this chapter. In addition, as themes emerged during data analysis, a more specific literature review is

conducted at the conclusion of the project and presented as part of the discussion in Chapter V.

In order to examine the preliminary research literature in a meaningful way, concepts are organized in the following order: problematic Internet use (What differentiates between normal and problematic Internet use?), motives and perceived benefits of on-line social media use (Why are some individuals drawn to on-line interactions?), the relationship between on-line interactions and the quality of off-line relationships (What, if anything, do individuals give up in their off-line relationships in order to spend time on-line?), the relationship between on-line interactions and aspects of psychosocial well-being (How does on-line interaction relate to loneliness, depression, sense of belonging, social skills, etc.?), and the need for a theory to guide developing social media research (What conceptual framework offers promising implications for future studies?).

Problematic Internet Use

When Young (1998) began studying Internet addiction almost two decades ago, she found that Internet addicts reported using the Internet for an average of 38 hours per week, outside of work and academics, and their high use resulted in negative work, academic, or interpersonal consequences. In contrast, non-addicts reported using the Internet for an average of eight hours per week, outside of work and academics, and reported no significant consequences to their Internet use. However, we have come to know that time spent on-line, in and of itself, is not indicative of either benefit or harm (Caplan, 2005). Over the years, researchers have worked to understand the components of Internet addiction or problematic Internet use, beyond merely excessive use.

Young (2004) first introduced the concept of Internet addiction at the Annual

Meeting of the American Psychological Association in 1996. Although there was no

formally accepted set of diagnostic criteria for Internet addiction listed in the Diagnostic

and Statistical Manual of Mental Disorders, 4th ed. (American Psychiatric Association,

1994), Young argued that Internet addiction had characteristics similar to substance abuse

dependence and pathological gambling. Extrapolating from the diagnosis of pathological

gambling, Internet addiction was defined as a psychological dependence on the Internet

and was characterized by an increasing preoccupation and investment of resources (time,

money, and energy) on Internet-related activities. Additionally, when off-line the

addicted individual experiences unpleasant feelings, such as anxiety, depression, or

emptiness, which are relieved once the individual re-engages in on-line activities.

Furthermore, addicted individuals experience an increase in tolerance to the effect of

being on-line, which can lead to needing to spend more time on-line and often the

addicted individual denies the existence of problematic behaviors (Kandell, 1998).

Shortly after Young's introduction of the concept of Internet addiction, Morahan-

Martin and Schumacher (2000) conducted a study of what they termed pathological

Internet use. The researchers, although using a different term, used similar diagnostic

criteria, defining pathological Internet use as Internet use that resulted in four or more

symptoms of disturbance such as, evidence that use was causing work, academic, or

interpersonal problems, feelings of personal distress, withdrawal, or using the Internet to

alter one's mood. In their study of 277 undergraduate Internet users, they found that

27.2% reported no symptoms, 64.7% reported limited symptoms (one to three symptoms)

and 8.1% met the diagnostic criteria for pathological Internet use (four or more

symptoms). Pathological Internet users were more likely to be male than female, more likely to use multiple Internet sites, and had different reasons for using the Internet. Furthermore, the study found six underlying factors accounting for a total of 59.29% of the variance in Internet use, including social confidence, socially liberating, competency, ease of communication, disadvantages of use, and lurking (the last two factors were negatively correlated). Finally, pathological users were found to be significantly more lonely than participants with no or limited symptoms.

Meerkerk, Van Den Eijnden, Vermulst, and Garretsen (2009) also disagreed with the Internet addiction nomenclature, stating that an individual cannot be addicted to the Internet itself but rather to on-line activities that occur on the Internet which in turn result in compulsive use of the Internet. Thus, they preferred the term "compulsive Internet use." They did, however, essentially agree with the diagnostic criteria of Internet addiction. Similar to the work done previously by Young (1998), they drew from the diagnostic criteria for substance abuse dependence and pathological gambling, and identified seven dimensions defining compulsive Internet use. The seven dimensions included tolerance, withdrawal, loss of control, preoccupation, conflict, coping, and lying about involvement.

Using the seven identified dimensions, Meerkert et al. (2009) developed the Compulsive Internet Use Scale (CIUS). Interestingly, in the process of validating their instrument, they also provided compelling evidence about the pervasive nature of on-line activity. In one of their studies, they had a large convenience sample ($n = 16,925$) of regular Internet users; regular was simply defined as individuals who self-identified as regular rather than heavy users of the Internet. They found that regular Internet users

spent, on average, 22.5 hours per week on-line engaged in personal activities, outside of work or academic use.   This was a significantly higher report of time spent on-line than the eight hours a week of use in Young's original research twenty years prior.

Emerging out of the research on Internet addiction was a conceptualization of pathological Internet use proposed by Davis (2001), who posited that unhealthy Internet use results from problematic cognitions in conjunction with behaviors that result in negative outcomes. Previously, other theories focused on behavioral symptoms and negative consequences, but Davis proposed that an individual's cognitions are the main source of abnormal Internet use. Drawing from the cognitive symptoms of depression, he proposed that maladaptive cognitions include a ruminative cognitive style, feelings of self-consciousness, low self-worth, a depressogenic cognitive style, low self-esteem, and social anxiety. He proposed two subtypes of pathological use, specific and generalized. Specific pathological use involves overuse of content-specific functions and general pathological use involves multidimensional overuse related to the interactive nature of the on-line experience.   Additionally, Davis proposed that the cognitions associated with pathological Internet use were consequences of broader psychopathology. In other words, he hypothesized that existing psychosocial problems predisposed individuals to develop maladaptive cognitions, rather than believing that Internet use caused psychosocial problems (Caplan, 2002).

Intending to operationalize Davis's cognitive-behavioral theory of pathological Internet use, Caplan (2002) created the Generalized Problematic Internet Use Scale (GPIUS). He administered the GPIUS, along with several measures of psychosocial well-being, to 386 undergraduate students. Results from this initial study identified seven

dimensions of problematic Internet use, including mood alteration, perceived social benefits available on-line, negative outcomes associated with Internet use, compulsive Internet use, excessive amounts of time spent on-line, withdrawal symptoms when away from the Internet, and perceived social control when on-line. Additionally, Caplan reported correlations between the GPIUS results and several measures of psychosocial well-being, including depression, loneliness, shyness, and self-esteem.

LaRose, Lin, and Eastin (2003) attempted to point out inconsistencies in the discussion of problematic forms of Internet use, previously referred to as addiction, compulsive use, pathological use, and problematic use, by introducing a theory of unregulated media use. Previous research explained the development of problematic Internet use in primarily two ways. The first theory was that psychopathology, or an underlying addictive personality, predisposed a person to developing an Internet addiction (Davis, 2001). Classic principles of operant conditioning undergirded the second theory of problematic Internet use. LaRose et al., however, posited a social-cognitive model of problematic use. They hypothesized that deficient self-regulation, defined as a diminished state of conscious self-control, led to habitual use that for some users developed into problematic forms of Internet use.   They collected data on Internet usage, self-regulation, and depression from 498 undergraduate students and found support for their model. They conceptualized symptoms of problematic Internet use as indicators of deficient self-regulation that contribute to habit formation. Additionally, they found that deficient self-regulation was a continuous variable, rather than an all-or-nothing phenomenon, that emerged across a wide spectrum of Internet users.

Over the next decade, Caplan continued to revise his theories as he gained understanding and insight regarding the complexities of problematic Internet use. Caplan (2003) began the revision of his theory by focusing on preference for on-line social interaction. At this point, his theory postulated that individuals with psychosocial difficulties have more negative self-perceptions of their own social competence than individuals without these difficulties. Therefore, individuals with psychosocial difficulties were more likely to develop a preference for computer-mediated communication.

Preference for on-line social interaction was a construct characterized by the belief that individuals perceive on-line interactions to be less threatening and themselves to be more desirable on-line. Thus, a preference for on-line social interaction may develop from users' perceptions that computer-mediated communication is easier for several reasons. First, it requires less interpersonal sophistication. Second, it is less risky than face-to-face communication because it offers greater anonymity, greater control over self-presentation, less social responsibility toward others, and less social risk. Third, it is more exciting due to more intense and intimate self-disclosures. Finally, he proposed that these perceived benefits of on-line communication would likely lead to excessive computer-mediated communication usage, which would ultimately worsen the original psychosocial difficulties. Using the data that he had collected a year earlier, Caplan (2003) reported that preference for on-line social interaction did mediate the relationship between psychosocial difficulties and negative outcomes resulting from Internet use and he believed his new model was an improved fit for the data.

A couple of years later, Caplan (2005) integrated research on social skills and self-presentation, as well as compulsive use of the Internet into his theory of problematic Internet use. Since 2002, Caplan had been looking at correlations between psychosocial difficulties and problematic Internet use. In 2005, however, he included a deficit in social skills, defined as a lack of interpersonal competence, resulting in interpersonal rejection, embarrassment, and relationship failure. Individuals who are perceived as more socially skilled are generally perceived as more likeable and more successful (Madrid & Wiseman, 2003). Furthermore, Caplan (2005) focused specifically on one aspect of social skills, identified as social control skills – one's competence with self-presentation. He postulated that individuals who struggle with self-presentation would be drawn to computer-mediated communication to enhance their limited social skill abilities, hence creating a preference for on-line social interaction. This preference may in turn result in compulsive Internet use, which included not only excessive use of the Internet but also difficulty with impulse control relating to use of the Internet, resulting in negative outcomes. Caplan administered several measures related to social skill, preference for on-line social interaction, compulsive Internet use, and negative outcomes to 251 undergraduate students and found support for his hypothesized model.

The following year, Caplan and High (2006) conducted another study looking to differentiate between excessive use of the Internet and problematic Internet use. At this point, he emphasized that cognitive preoccupation with the Internet was the moderating factor between excessive use of the Internet and resulting negative outcomes. He administered the GPIUS to 428 undergraduate students and reported that participants

with both high levels of use and high levels of preoccupation were, in fact, more likely to report negative outcomes related to their Internet use.

In 2007, Caplan revisited his earlier theory that problematic Internet use was mediated by a deficit in social skills. However, this time he posited that a deficit in social skills is experienced as social anxiety and specifically leads to preference for on-line social interaction, which in turn leads to negative outcomes. Caplan (2007) purported that in social interactions, all people are motivated to engage in strategic self-presentation as well as identity management in an effort to make a positive impression on others. However, individuals with social anxiety are more likely to lack confidence in these areas and be drawn to low-risk interpersonal encounters, such as computer-mediated communication. After administering measures of loneliness, social anxiety, preference for on-line social interaction, and negative outcomes to 343 undergraduate students, Caplan found that perceived self-presentation efficacy was a factor in preference for on-line social interaction and consequently on negative outcomes of Internet use.

Kim and Davis (2009) provided further support for Caplan's theory of problematic Internet use. They administered measures of positive activities, negative outcomes, self-esteem, and sensation seeking as predictors of problematic Internet use to 315 undergraduate students. Results indicated that low self-esteem was significantly related to problematic Internet use, which was consistent with Caplan's emphasis on the role of psychosocial difficulties in the development of problematic Internet use. In a second study (Kim & Davis, 2009), conducted with 279 undergraduate students, the researchers added two additional measures, anxiety and flow. Again, they found that two

psychosocial difficulties, low self-esteem and anxiety, were related to the development of problematic Internet use.

As Caplan's research evolved, it seems reasonable that in 2010, he revised his earlier assessment scale to look more specifically at key cognitive symptoms of generalized problematic Internet use, including preference for on-line social interaction, the use of the Internet to regulate mood, deficient self-regulation resulting in cognitive preoccupation with the Internet, as well as compulsive Internet use, and negative outcomes of these behaviors. The Generalized Problematic Internet Use Scale 2 (GPIUS2) included two new factors, preference for on-line social interaction, which was a combination of the former social benefits and social control subscales, and deficient self-regulation, which related to both cognitive preoccupation and compulsive Internet use. The revised scale no longer included a measure of excessive use, as time spent on-line was not necessarily a predictor of problematic use of the Internet. Caplan (2010) employed a total of 785 participants, both students and non-students, to validate his revised instrument and found support for his model.

Most recently, Acier and Kern (2011) designed a qualitative study addressing the question of problematic Internet use. The researchers asked current addiction counselors to participate in focus groups to share their experience and expertise with people struggling with problematic Internet use. The counselors reported that most young adults with problematic Internet use present as inhibited, introverted, and withdrawn. Additionally, they saw the Internet as a way to fulfill unmet needs or to compensate for social or interpersonal difficulties. The results of this study are congruent with the findings reported by Douglas et al. (2008), in which they described a similar Internet

addiction profile (discussed in depth later in this chapter) as well as Caplan's social skills explanation of problematic Internet use (Caplan, 2003; Caplan, 2005; Caplan, 2007; Caplan 2010).

Based on the problematic Internet use literature, we have come to understand that the answer to the question of "What differentiates between normal and problematic Internet use?" is complicated. Over the past two decades, research has reported that an excessive amount of time on-line is not necessarily an indication of problematic use of the Internet, especially since an average user was reported to be on-line for 22.5 hours per week, outside of work and academic use (Meerkert et al., 2009). Early on, there was general consensus that problematic Internet use could be operationally defined as similar to substance abuse dependence and pathological gambling, including symptoms of tolerance, withdrawal, loss of control, preoccupation, conflict, coping, and lying about involvement (Meerkerk et al., 2009; Morahan-Martin & Schumacher, 2000; Young, 1998; Young, 2004).

However, over the more recent decade, Caplan (2010) emerged as the most influential conceptualizer in the field and developed a more specific approach to problematic Internet use that included the following cognitive symptoms: preference for on-line social interaction, use of the Internet to regulate mood, deficient self-regulation, cognitive preoccupation, and negative outcomes resulting from use of the Internet. Finally, although there is disagreement about the direction of the relationship, there seems to be general consensus from both quantitative and qualitative perspectives (Acier & Kern, 2010; Caplan, 2003; Caplan, 2005; Caplan, 2007; Caplan, 2010; Kim & Davis,

2009) that problematic Internet use is related to deficits in psychosocial skills, particularly social competency and social anxiety.

Computer-Mediated Communication Motives

Much of the research regarding the motivation for use of computer-mediated communication has been conducted under the theoretical framework of the Uses and Gratifications model. The Uses and Gratifications theory is a psychological perspective emerging from the field of mass media, emphasizing the active role of people in choosing media that fulfill their needs and wants (Blumler & Katz, 1974; Rubin et al., 1988). There are five underlying assumptions of Uses and Gratifications theory, beginning with the first assumption, which posits that communication is goal-directed, purposeful, and motivated. Additionally, people actively select and use various communication vehicles and are able to self-identify their own communication motives and gratifications. Furthermore, media compete with other forms of communication for attention, selection, and use and finally, people are influenced by various social and psychological factors when selecting from various communication alternatives (Blumler & Katz, 1974; Flaherty, Pearce, and Rubin, 1998).

Conceptualizing motives for engaging in computer-mediated communication begins with an understanding of general interpersonal communication motives. Rubin et al. (1988) set out to conceptualize and measure individuals' motives for engaging in interpersonal communication. Building from the literature regarding interpersonal communication, as well as mass media's Uses and Gratifications research, Rubin et al. (1988) developed the Interpersonal Communication Motives (ICM) Scale. After several administrations of the scale, the results indicated six prominent motives for interpersonal

communication, including pleasure, affection, inclusion, escape, relaxation, and control. Interestingly, these motives reflect a desire to form and maintain social bonds, a theme that is congruent with the theoretical anchor guiding the current research project. In addition, Rubin et al. (1988) reported that participants who were low in anxiety regarding communication were more likely to use interpersonal communication for pleasure, affection, and control, while those high in communication anxiety were more likely to engage in interpersonal communication for purposes of inclusion.

More than a decade later, Papacharissi and Rubin (2000) examined Internet use from the Uses and Gratifications theory perspective. They posited that people choose from various communication channels, some face-to-face and some mediated, to fulfill various wants and needs, depending on the availability of the communication channel and the type of want or need to be fulfilled. Using a combination of interpersonal and television viewing motives, they developed the Computer-Mediated Communication (CMC) Motives Scale. In the construction of their scale, they combined interpersonal motives, such as affection, inclusion, and control, with television viewing motives, such as entertainment, habit, information, and escape, with motives specific to Internet use, such as convenience, economy, and expressive need. They administered the Computer-Mediated Communication Motives Scale to 279 undergraduate students along with several other measures regarding Internet use and satisfaction, in addition to an unwillingness-to-communicate assessment.

Based on their results, Papacharissi and Rubin (2000) summarized that Internet users who were mobile, financially secure, satisfied with life, and socially confident used the Internet for its instrumental value, such as information seeking. However, those who

felt less socially confident or less interpersonally valued used the Internet as a functional

alternative to interpersonal communication. Interestingly, Flaherty et al. (1998) while

drawing similar conclusions regarding motivations, argued that the Internet cannot serve

as a functional alternative for face-to-face communication. These researchers surveyed

132 undergraduate students about their communication motives, using the Interpersonal

Communication Motives Scale, as well as locus of control and computer-mediated

communication apprehension. Their results indicated that participants viewed the face-

to-face context as the preferred venue to fulfilling communication needs, both

interpersonal and media specific, hence they argued the Internet was not a functional

alternative to face-to-face communication.

Almost a full decade later, Sun, Rubin, and Haridakis (2008) reviewed

motivations for using the Internet, by integrating the Uses and Gratifications theory and

media dependency research. The researchers administered the Computer-Mediated

Communication (CMC) Motives Scale, along with measures of both cognitive and

affective Internet involvement and Internet dependency (extrapolated from the Television

Dependency Scale) to 471 participants, ranging from 18 to 74 years of age. They found

that cognitive and affective Internet involvement mediated the relationship between

motives and dependency, which provided support for the work done by both Davis

(2001) and Caplan (Caplan, 2002; Caplan, 2003; Caplan, 2005; Caplan & High, 2006;

Caplan, 2007; Caplan, 2010) regarding the importance of cognitive factors in the

understanding of problematic Internet use.

In a very recent study by Sheldon et al. (2011) regarding the use of Facebook, in

particular, the researchers reported a two-process construct for satisfying one's

interpersonal needs on-line, addressing the complex and frequently contradictory results in computer-mediated communication research. In a study of 1,002 undergraduates, participants completed measurements of Facebook use and relatedness need-satisfaction. Paradoxically, results indicated that participants' Facebook use correlated with both an increase in relatedness satisfaction (feelings of connection) and an increase in relatedness dissatisfaction (feelings of disconnection). They hypothesized that feelings of disconnection motivate an increase in Facebook use as a coping strategy and once users are on Facebook they experience an increased sense of connection. Hence, the researchers theorized that feelings of disconnection drive Facebook use while the reward of Facebook use is feeling connected.

Almost all the research regarding the motivation for use of computer-mediated communication has been conducted under the theoretical framework of the Uses and Gratifications model. While it may, in fact, be the best measure of computer-mediated communication motives, it is a theory borrowed from the mass media field, which is inherently different than computer-mediated communication and therefore should be seen as a possible limitation of the current body of research. Sheldon (2008) warned that the classifications of the Uses and Gratifications theory were developed for media use and would need further development to capture Internet use. Additionally, there is an inherent flaw to the theory of Uses and Gratifications in understanding any problematic form of Internet use (LaRose et al., 2003). By definition, problematic Internet use indicates that individuals feel compelled to use the Internet despite potential negative consequences, which is in direct contrast to the Uses and Gratifications theory's view that individuals rationally, actively, and consciously seek out media that gratify their needs.

All of the aforementioned studies indicate that technology users have various and complex motivations for using technology. While researchers came to varying conclusions, they frequently presented evidence that social and psychological factors, such as communication anxiety and social confidence, are prominent features in the choices that individuals make regarding computer-mediated communication (Papacharissi & Rubin, 2000; Rubin et al., 1988; Sun et al., 2008). Additionally, much like the problematic Internet use literature, the before and after effects of Internet use create a complicated picture for understanding the motives behind computer-mediated communication (Sheldon et al., 2011). Finally, this body of research is a good fit with the theoretical framework of the current study, as computer-mediated communication motives reflect a desire to form and maintain social bonds (Rubin et al., 1988).

Perceived Benefits of Computer-Mediated Communication

Regardless of the motivation for using computer-mediated communication, scholars agree that electronic sociability is nearly epidemic, particularly in college-age populations. A recent study reported that more than 95% of participants had a Facebook page and of those, 78% accessed their page at least twice a day (Sheldon et al., 2011). The quantitative numbers alone indicate that Facebook and other forms of social media are especially appealing to young adult users. Caplan's (2003) research provided details regarding the perceived benefits of computer-mediated communication. He reported that users described it as easier because it requires less interpersonal sophistication. In addition, it was perceived to be less risky than face-to-face communication because it offers greater anonymity, greater control over self-presentation, less social responsibility

toward others, and less social risk. Finally, computer-mediated communication was seen as more exciting due to more intense and intimate self-disclosures.

His findings were consistent with qualitative themes from van Manen (2010), who reported that shy or less verbal young people found computer-mediated communication to be a safer method because it does not require engaging in extended conversation and allows people to feel in touch with others without having to be too close. Additionally, Kang (2007) confirmed Caplan's research in a quantitative study in which he reported that the experience of disembodiment results in a decline in nonverbal cues, leading to more intimate self-disclosures and less social responsibility than face-to-face communication.

Bargh and McKenna (2004) reported similar perceived benefits of computer-mediated communication, including offering relative anonymity, reducing the risks of self-disclosure, as well as providing a group setting for meeting others with similar interests and values. Additionally, the researchers provided new insight regarding the appeal of on-line interpersonal interactions. Participants reported they were better able to express their true selves on-line; free to share aspects of themselves that they felt were important but that were typically unable to be presented in face-to-face public settings. Furthermore, they found that when individuals liked one another on-line, they tended to project the qualities of their ideal friends onto one another. The researchers believed that these two tendencies contributed to the appeal of on-line interaction because they created connection and closeness between the users.

Psychosocial Constructs

Early research has come to various conclusions regarding the relationship between computer-mediated communication and the quality of face-to-face interpersonal interactions, as well as other psychosocial constructs, including well-being, belongingness, loneliness, depression, and social anxiety. Some have argued that Facebook, and other forms of computer-mediated communication, could be an addiction (Meerkerk et al., 2009; Young & Rogers, 1998; Young, 2004), while others believed it to be a technological advancement that enhances our ability to connect with others (Ellison et al., 2007). Even when correlations have been found between computer-mediated communication and face-to-face interpersonal interactions, along with other constructs of psychosocial well-being, it is difficult to discern which came first. In other words, do psychosocial difficulties lead to potentially abnormal uses of the Internet (Caplan, 2003; Caplan, 2005; Caplan 2007; Caplan 2010; Davis, 2001)? Or as Sheldon et al. (2011) suggested, do computer-mediated communication and psychosocial factors relate to one another in a recursive fashion? As seen in the following literature review, there is little agreement amongst scholars about the relationship between computer-mediated communication and interpersonal skills and other psychosocial constructs.

Social connection. In the mid 1990s, researchers and academics were concerned that the Internet and its social capabilities could result in an over-reliance on computer-mediated communication that would detract from the quality of one's off-line interpersonal relationships (Hu & Ramirez, 2006). Early on, two theories were proposed regarding the potential problematic features of social use of the Internet (Kraut et al., 1998). The first was time displacement, simply meaning that an individual may be giving

up off-line interpersonal interactions in order to engage in on-line interpersonal interactions. The other theory was concerned that weak ties would replace strong ties, meaning that using the Internet for social interaction substituted a poorer quality on-line relationship for a deeper, richer off-line relationship. In a later publication, Hu and McDonald (2008) debated the merits of the previous theories, regarding the problematic aspects of social use of the Internet. First, they refuted the time displacement theory with evidence that the Internet is being used to facilitate off-line social interactions rather than replace them. They refuted the second theory regarding strong and weak ties by challenging the assumption that strong ties are supported by physical proximity rather than time investment, emotional intimacy, and reciprocity, which they argued can happen on-line as well as face-to-face.

In one of the earliest studies on Internet use, Katz and Aspden (1997) examined patterns of friendship and community involvement among several different groups of Internet users. In 1995, they carried out a national random telephone survey, which yielded 2,500 respondents. Despite the literature of that era's concern with the potential negative impact of the Internet on relationships, they found no evidence of Internet users decreasing their involvement in the community. Instead, they reported Internet users were likely to be using the Internet to augment their traditional social connectivity.

Yielding different results, another early study by Kraut et al. (1998) reported that greater use of the communicative aspects of the Internet correlated with small but significant declines in social involvement and increases in loneliness and depression. However, in a follow-up study by Kraut et al., (2002), the negative effects of Internet use seemed to have dissipated and the researchers were unable to replicate their previous

findings. Nevertheless, the researchers did report that socially engaged and socially disengaged people use the Internet differently and that the positive or negative effects of Internet use seem to depend on the quality of the on-line relationships, as well as what people were giving up to spend time on-line.

Since these early studies, the communicative nature of the Internet has expanded greatly, making computer-mediated communication a continuous part of everyday life. While the use of computer-mediated communication has continued to grow, so have the conflicting reports on the possible outcomes of high use. For example, Nie and Erbring (2002) found that the more time people spent on-line, the more likely they were to spend less time in face-to-face contact with family and friends, less time talking on the telephone with family and friends, and less time attending events outside home. In a subsequent survey by Nie, Simper, Stepanikova, and Lu (Hu & Ramirez, 2006), consistent results were reported. The researchers found that, for an average Internet user who spent three hours per day on-line, face-to-face communication time decreased by 70 minutes.

On the other hand, Howard et al. (2001) reported that approximately 60% of their survey respondents communicated more often with their families and friends than they did before using the Internet. In addition, they found that Internet use was positively associated with face-to-face social activity.   Their results were confirmed by a 2007 study by Ellison et al. They found that Facebook usage was positively correlated with the formation and maintenance of social capital, broadly defined as the resources acquired through relationship with other people. Putnam (2000) distinguished between bridging and bonding social capital. Bridging, sometimes referred to as weak ties, was commonly

attributed to social networking, as users have many connections with people that may provide information but not emotional support. Bonding social capital, on the other hand, was a strong tie to an individual in an emotionally close relationship. As a result of their research, Ellison et al. (2007) added an additional dimension of social capital to their research findings, which they referred to as maintained social capital. They found that Facebook contributed to both bridging social capital and maintained social capital, particularly with high school friends.

More recent studies, including an enormous study by Chen and Peng (2008), which included 49,406 undergraduate students, examined Internet use and its relationship to academic performance, interpersonal relationships, psychosocial adjustment, and self-evaluation. Interestingly, the researchers began by defining heavy users of the Internet based on Young's research from 20 years earlier, in which she defined heavy users at those who used the Internet for personal reasons for more than 38 hours per week. In their study, however, Chen and Peng found that number needed to be readjusted to accurately represent heavy users. They found that heavy users, those who scored a full standard deviation above the mean, spent just under 34 hours per week on-line. Results indicated significant differences between heavy and non-heavy users on all measures, including interpersonal relationships, psychosocial adjustment, self-evaluation, and academic performance. To summarize, non-heavy users had better relationships with university staff, better grades, and higher learning satisfaction while heavy users were more like to be depressed, physically ill, lonely and introverted.

The initial concern that social functions of the Internet might negatively impact the quality of off-line relationships continues to be a controversial debate amongst

scholars. On one hand, research has shown that the more individuals engage in on-line interactions, the less they are motivated to invest in their face-to-face relationships. On the other hand, research showed that on-line activity was positively related to face-to-face social activity. In fact, in the research presented in this review, there are almost an equal number of supporters for each side of the debate. The literature indicates that it is less important to examine whether or not individuals engage in on-line interactions, and more important to examine how they engage, the quality of their relationships on- and off-line, and what they give up to spend time on-line.

Academic performance. Kirschner and Karpinski (2010) looked specifically at Facebook use and academic performance. The researchers posited that Facebook users often multitask or toggle back and forth between Facebook and other study activities, which inevitably slows the learning process and increases the likelihood of making a mistake. The researchers queried 102 undergraduate and 117 graduate students about their Facebook use, grade point average, and hours of study time. The results indicated that Facebook users, approximately 64% of the study participants, had lower grade point averages and spent fewer hours per week studying. As recently as 2011, the American Psychological Association's publication, *Monitor*, was still seeking answers to the basic question, "Is Facebook friend or foe?" Chamberlin (2011) cited current research of Larry Rosen that children and teenagers who use Facebook more are prone to mental health problems, have poorer grades, and are more likely to be physically ill than their peers who use Facebook less frequently.

The role of personality. Personality is defined as an individual's tendency to behave in the same way across situations over a period of time (van der Aa et al., 2008).

There are five broad dimensions of personality, including emotional stability, extraversion, openness, agreeableness, and conscientiousness. McKenna and Bargh (1998) identified introversion, emotional instability, and low agreeableness as potential signs of vulnerability for developing problematic Internet use. Caplan (2003) agreed with this assessment of vulnerability, as individuals with these traits are deficient in interpersonal skills.

In an early study, Bonebrake (2002) examined the relationship between Internet use, relationship formation, and personality. She was particularly interested in studying characteristics, such as the personality traits, social skills, and conflict management styles of individuals who are drawn to the Internet to form relationships. She queried 104 undergraduate students and found no character differences between people who were drawn to the Internet to form relationships versus people who were not. Her findings were broad sweeping, including no difference in factors of loneliness, anxiety, social skills, and time spent between groups. She did, however, report that the group drawn to the Internet to form relationships found it less difficult to find similar others on-line and were more comfortable trying out new roles.

Utilizing Young's (1998) 20-item Internet addition test, Hardie and Tee (2007) surveyed 96 adult respondents about Internet addiction, personality, loneliness, social anxiety, support networks, and Internet activities. The researchers measured personality traits of extraversion, representing the degree of sociability, and neuroticism, representing the level of emotional maladjustment. Only 8% of the sample met the criterion for Internet addiction, but an additional 52% were described as over-users, defined as users who experience frequent problems due to their Internet use. The groups reported similar

levels of interpersonal support and moderate levels of social loneliness. However, over-users and addicts had higher levels of neuroticism and introversion, higher social anxiety, and greater emotional loneliness than average users.

Moore and McElroy (2012) recently took another look at the role of personality factors and use of Facebook. The researchers took a unique approach to the research, utilizing both a survey of personality and use of Facebook, in addition to examining actual Facebook data, such as friends, photos, and profile posts. They examined several factors of personality, including emotional stability, neuroticism, introversion, and extraversion. Of the 219 undergraduate participants, 143 gave access to their Facebook profiles. The study results indicated that neurotic users spent more time on Facebook, which the researchers theorized as a desire to have more control over self-presentation. On the other hand, results indicated emotionally stable and introverted users were more likely to use Facebook to keep up with friends.

In summary, while there is limited research regarding the role of personality and computer-mediated communication, there does seem to be an emergent theme. Although there are divergent results around the personality attributes of introversion and extraversion, there is more agreement amongst scholars that neuroticism has a positive relationship with computer-mediated communication. Neuroticism represents the opposite end of the continuum from emotional stability and is seen as distrustfulness, sadness, anxiety, embarrassment, and difficulty with stress management (Moore & McElroy, 2012). Interestingly, some of these features of neuroticism overlap with social anxiety, which is congruent with the previous literature regarding both problematic use and perceived benefits of computer-mediated communication.

Well-being outcomes. Symptoms of stress, loneliness, self-esteem, and depression are a few indicators of the psychosocial construct of well-being. Cotten (2008) reported on the pervasive nature of technology use, particularly among young people, in addition to the impact of technology use on overall well-being. She reviewed 227 undergraduate participants' responses to the College Internet Use Study. Results of the study indicated that participants spent six hours per week using e-mail, 21 hours per week using instant message, eight hours per week surfing the Internet, and five hours per week gaming (this is an average total of 40 hours per week on-line). Additionally, results indicated a relationship between specific types of Internet use and changes in the number of social contacts; instant messaging and surfing were both related to increases in social contact, but gaming was related to decreases in social contact. Furthermore, results indicated instant messaging was associated with an increase in mattering, defined as a perception that the individual matters to others, and gaming was associated with a decrease in mattering. Lastly, as an individual's sense of mattering increased, his or her self-esteem also increased and feelings of depression decreased. Thus, Cotten created a tenuous series of relationships linking symptoms of well-being to Internet use via changes in social contacts and feelings of mattering.

Kalpidou, Costin, and Morris (2011) also examined the impact of Facebook use, specifically on undergraduate students' sense of well-being. The researchers anticipated that Facebook use would be positively correlated to social adjustment and negatively correlated to emotional adjustment and self-esteem. They queried 70 undergraduate students and found support for their hypotheses. However, they did find that results were mediated by year in school and speculated that participants use Facebook more

effectively for social connection later in their college careers then they do early on. Interestingly, the researchers suggested that time spent on Facebook was not nearly as predictive in their study as the number of Facebook friends, indicating a need for further research in that area.

Finally, as the previous research recommended, Kim and Lee (2011) examined the relationship between Facebook friends and self-presentation on the subjective experience of well-being. The researchers surveyed 391 undergraduate students regarding five variables, including number of Facebook friends, positive self-presentation, honest self-presentation, interpersonal support, and subjective well-being. They posited that Facebook friends may be fundamentally different than real life friends, as on-line friendships do not take much effort nor do they indicate strong or close connections. Additionally, they examined Facebook users' ability to be selective in their presentation style on-line, although they believed that users would feel some pressure to be honest in their presentation on Facebook since it is bound to off-line interactions.

Kim and Lee (2011) reported that the number of Facebook friends and positive self-presentation of an individual were both positively correlated with subjective well-being, but varied in terms of perceived social support. The researchers hypothesized that having Facebook friends might remind users of their social connections, consequently enhancing their feelings of self-worth. Additionally, positive self-presentation, defined as selectively revealing the socially desirable parts of one's self, was also related to subjective well-being, leading the researchers to believe that users' felt affirmed by their positive self-presentation. Interestingly, honest self-presentation was associated with higher perceived social support, which then had an indirect positive effect on subjective

well-being. In this case, the researchers' speculated that when Facebook users presented themselves honestly and engaged in self-disclosure, they were able to feel meaningful support from their Facebook friends and consequently improved feelings of well-being.

The research suggests that Facebook users may be able to fulfill their social needs, an aspect of psychological well-being, by stimulating both on- and off-line social interaction. However, emotional needs are not as well met on Facebook, because Facebook displaces time spent on emotionally gratifying relationships in favor of less close and meaningful on-line relationships (Kalpidou et al., 2011).

Belongingness. Baumeister and Leary (1995) offered a theory regarding the construct of social connectedness. According to belongingness theory, individuals are motivated to develop and maintain positive social relationships in order to experience a sense of belonging as well as enhanced well-being. They concluded that "the desire for interpersonal attachment may well be one of the most far-reaching and integrative constructs currently available to understand human nature" (p. 609).

In the interest of studying the construct of belongingness, Pearson et al. (2009) studied the motives of undergraduate students in the use of a variety of technologies, including cell phones, televisions, computers, and MP3 players. To measure motives, the researchers extrapolated six motivating factors based on the Television Viewing Motives Scale, including escape, entertainment, information, companionship, social interaction, and pass time. In addition to motives, participants completed scales measuring two psychosocial constructs – loneliness and belongingness. Participants included 708 undergraduate students and results suggested that participants used electronic devices for entertainment, companionship, social interaction, and passing time, however, the

relationships between various technologies and the two psychosocial constructs were varied. Most notably, results indicated that participants who used their cell phones and televisions for social interaction and companionship reported lower levels of loneliness. However, participants who used their MP3 players and computers for social interaction and companionship reported higher levels of loneliness. Finally, the more participants engaged in all four modes of technology, the less likely they were to feel accepted by others, indicating a decrease in a sense of belongingness.

In a very recent study of belongingness, Grieve, Indian, Witteveen, Tolan, and Marrington (2013) examined the possibility of developing feelings of belonging, or social connectedness, on-line. They reported a clear and positive relationship between Facebook connectedness and beneficial psychological outcomes, such as well-being and improved mental health, comparable to the benefits obtained through face-to-face relationships.

Loneliness. Research has explored the relationship between computer-mediated communication and specific psychosocial dimensions, such as loneliness, depression, and social anxiety, the most studied construct, by far, is the relationship between computer-mediated communication and loneliness. Findings, however, have been inconsistent and inconclusive. Loneliness is surprisingly difficult to define. In the broadest sense, scholars have agreed that a sense of loneliness results when there is a discrepancy between the social relationships a person needs or wants and the social interactions that one actually has (Hu, 2007; Hu & Ramirez, 2006; Russell, Cutrona, McRae, & Gomez, 2012). This discrepancy is further complicated by the differentiation between feelings of loneliness versus the experience of being alone. In other words, a person may be socially isolated but feel satisfied with limited interactions while others may be very socially

involved but feel dissatisfied by the quality of their interactions or still miss a particular relationship, such as a romantic partner or best friend (Russell et al., 2012).

Hu (2007) provided further differentiation between emotional and social loneliness. Emotional loneliness is a more specific loneliness that results from not having a meaningful personal attachment, such as a family member or romantic partner. Social loneliness is a more generalized loneliness that results from not feeling attached to a larger group or community. Most research does not differentiate between emotional and social loneliness, although the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980) does capture both with questions such as, "I feel in tune with others" and "I am no longer close to anyone." Finally, Hu and McDonald (2008) divided loneliness into chronic, situational, and transient.

Earlier in the literature review, several studies found a positive correlation between Internet use and loneliness (Caplan, 2002; Caplan, 2003). Around the same time, a study by Madrid and Wiseman (2003) examined the relationships between computer-mediated communication, social skills, and perceived loneliness. Their results differed from Caplan's findings, indicating that greater use of computer-mediated communication did not result in an increase in loneliness nor a decrease in social skills. Interestingly, however, they did find a significant negative correlation between social skills and loneliness, indicating that as social skills increased, loneliness decreased.

Hu and Ramirez (2006) surveyed 281 undergraduate students about several psychosocial measures including loneliness, sociability, social use of the Internet, perceptions of social skills, and evaluation of interpersonal relationships. The most notable results of their study included no relationship between social use of the Internet

and the experience of loneliness. They did find that individuals who feel interpersonally rejected, who perceive themselves as less socially skilled, and who have less interpersonal satisfaction are more likely to engage in social use of the Internet. These findings are congruent with Caplan's (2003) theory that less socially skilled individuals develop a preference for on-line social interaction.

Similar to the two-process construct (Sheldon et al., 2011) proposing the recursive relationship between psychosocial difficulties and problematic Internet use, Kim, LaRose, and Peng (2009) examined loneliness as both cause and effect of problematic Internet use. The researchers proposed that individuals are motivated to use the Internet in an effort to relieve feelings of loneliness. However, the increased consumption of the Internet results in further isolation and eventually further loneliness. They surveyed 635 undergraduate students about their on-line preferences, compulsive Internet use, negative outcomes, loneliness, deficient social skills, and preference for on-line social interaction. Results did not support their proposition, instead finding that downloading, an entertainment application of the Internet rather than a social one, was the only activity significantly related to increased loneliness.

Finally, Stepanikova, Nie, and He (2010) used a time-diary to measure Internet use, loneliness, and life-satisfaction data. This was a large study, recruiting 13,776 adults over a two-year period through random digit dialing. Participants were asked to complete two psychosocial assessments, including life satisfaction and loneliness, in addition to completing a six-hour sample of time use and a 24-hour global recall of time use. Results indicated that time spent at home surfing or engaged in social Internet use (such as chat

and instant message) was negatively related to life satisfaction and positively related to loneliness.

It seems reasonable that some deficiency in off-line relationships, which could be experienced as loneliness, might drive individuals to use the Internet to meet their social needs. Hence, the high number of studies examining the psychosocial construct of loneliness and computer-mediated communication. However, the results simply do not support the assumption, because the majority of the studies show no relationship between the use of computer-mediated communication and feelings of loneliness.

Shyness and social anxiety. Interestingly, the research exploring the relationship between computer-mediated communication and shyness or social anxiety, another psychosocial dimension, has more consistent, although complex, results. Chak and Leung (2004) examined the relationship between shyness, locus of control, and addictive Internet use. They described shyness as the fear to meet people, as well as discomfort in the presence of others. Additionally, at the core of the construct is fear and anxiety about being evaluated by others and consequently being rejected. They hypothesized that the Internet provides a valued communication alternative for shy individuals to meet social and emotional needs. Locus of control refers to the extent individuals believe they have influence over the events of their life. The researchers hypothesized that individuals with an external locus of control would be drawn to having power within on-line settings, perhaps because they felt out of control of events within their own life. They queried 722 individuals on five aspects, including Internet addiction, shyness, locus of control, Internet use, and on-line activities. They found that shyness and external locus of control were good predictors of Internet addiction. Interestingly, they also reported that full-time

college students were more likely to be addicted to the Internet due to free and unlimited Internet access, as well as flexible time schedules.

Similarly, Ward and Tracey (2004) hypothesized a relationship between shyness and on-line relationship involvement. They gathered data from 414 undergraduate students on measures of interpersonal competence, socially supportive behaviors, relationship satisfaction, on-line relationships, shyness, and computer attitudes. Results indicated that shy individuals were more likely to be involved in on-line relationships. Interestingly, shyness was associated with interpersonal difficulties both off-line and on-line, but to a greater degree in face-to-face communications, indicating that neither is a particularly great option for a shy person, but on-line was less difficult than off-line.

In addition to the construct of shyness, Sheeks and Birchmeier (2007) examined the use of computer-mediated communication in the context of expressing one's true self. True self was defined as an individual's personal characteristics that may not be displayed in social interactions. The researchers examined how different types of personality (shy versus sociable) view expression of their true selves and form relationships on-line by measuring shyness, true self-expression, computer-mediated communication use, and relationship development. The primary results from the 220 participants indicated that individuals whose motivation toward sociability was inhibited by their internal characteristic of shyness used computer-mediated communication to assist in relationship development, a finding congruent with Ward and Tracey (2004).

Finally, Reid and Reid (2007) investigated the relationship between social anxiety, loneliness, and cell phone use. Social anxiety was defined as a combination of fear, apprehension, and worry regarding one's ability to make a positive impression on others.

For purposes of their study, loneliness was defined as not just absence of social relationships, but particularly a lack of intimate contact, like a true best friend or romantic partner (similar to Hu's (2007) definition of emotional loneliness). They queried 158 individuals about social anxiety, loneliness, uses and gratifications of text messaging, and preferences for texting and talking on the cell phone. Interestingly, their study issued divergent results, indicating that lonely individuals preferred talking and considered texting to be a less intimate method of contact, while socially anxious individuals preferred texting and considered it a superior method for expressive and intimate contact. These divergent results are congruent with the work done by Caplan (2005; Caplan, 2007) who posited that social anxiety, rather than loneliness, is the leading psychosocial factor in the development of a preference for on-line social interaction.

When examining the social anxiety literature in direct comparison to the loneliness literature, one can see that although most of the research has not supported loneliness as a large factor in predicting preference for on-line social interaction, social anxiety has definitely been shown to be a factor in the development of preference.

Unwillingness-to-communicate. Unwillingness-to-communicate is a chronic tendency to avoid and/or devalue oral communication (Burgoon, 1976). Research explaining this construct includes sociological and psychological variables such as anomia, alienation, introversion, self-esteem, and communication apprehension. However, the most directly linked variable to the unwillingness-to-communicate construct is communication apprehension. For this person, anxiety about communication greatly outweighs any perceived benefit, leading to an unusually quiet, hesitant, and withdrawn presentation. Based on the sociological and psychological variables presented,

Burgoon developed the Unwillingness-to-Communicate Scale, a 26-item scale, which measured communication trust and communication apprehension. Burgoon was quite forward thinking, as she suggested that unwillingness-to-communicate might be a factor in the consumption of mass media.

Papacharissi and Rubin (2000) conducted an early study of the relationship between unwillingness-to-communicate and computer-mediated communication motives. They administered the Computer-Mediated Communication Motives Scale and the Unwillingness-to-Communicate Scale along with several other measures regarding Internet use and satisfaction to 279 undergraduate students. They found that Internet users who felt less socially confident or less interpersonally valued use the Internet as a functional alternative to interpersonal communication.

In 2007, Leung investigated the relationship between unwillingness-to-communicate and Short Message Service, commonly known as text messaging via cell telephone technology. He reported that young adults preferred text messaging because they found it less intrusive than a telephone call and more immediate than e-mail. Furthermore, younger people were more likely to be satisfied by a lower depth of interaction in their social connections. He gathered data about gratifications of text-message use, unwillingness-to-communicate, and shortcomings of text from 532 undergraduate students. In general, he found users' motivations included convenience, low cost, and utility for coordinating events. However, unwillingness-to-communicate was not positively related to text messaging as he had hypothesized; instead those individuals seemed put-off by the process of text messaging.

Sheldon and Honeycutt (2009; Sheldon, 2008) specifically examined the relationship between the unwillingness-to-communicate construct and Facebook use. They surveyed 172 undergraduate students regarding their Facebook use, gratifications of Facebook use, and unwillingness-to-communicate. Results indicated that individuals primarily used Facebook for relationship maintenance, to pass time, or for entertainment purposes. Additionally, respondents who felt anxiety or fear in face-to-face communication reported using Facebook to pass time and to feel less lonely. However, individuals who were unsatisfied with their face-to-face interactions tended to have fewer on-line friend contacts but logged on more frequently than their satisfied counterparts. They hypothesized that for these less skilled individuals, visiting Facebook is a way to occupy time in place of spending time with others. Ironically, like Leung's previous research (2007), Sheldon and Honeycutt reported that individuals who struggled with face-to-face communication also communicated less on-line, supporting the rich-get-richer hypothesis that social media primarily benefits extroverted individuals.

In summary, with regard to social connection, it seems that it is less important to examine whether or not individuals engage in on-line interactions than to examine how they engage, the quality of their relationships on- and off-line, and what they give up to spend time on-line. While there is little agreement amongst scholars regarding the impact of computer-mediated communication and social connection, there is little disagreement regarding its impact on academics. Scholars agree that academics suffer when students multitask between social media and academic work. Furthermore, the research demonstrates that individuals with neurotic personality traits are more likely to be drawn to the qualities of computer-mediated communication. Finally, although it is apparent

that computer-mediated communication has some impact on psychosocial variables, such as well-being, belongingness, loneliness, social anxiety, and unwillingness-to-communicate, it is unclear how to capture the subtle nuances of the effects. Kang (2007) explained it nicely when he stated "there is no simple main effect of the Internet on the average person" (p. 477).

Non-theoretical Grounding

The current research has provided inadequate understanding of computer-mediated communication, in part, due to a lack of theory-guided research questions and designs (Caplan, 2003; Sheldon, 2008). As previously stated, much of the research regarding motivation for use of computer-mediated communication has been done under the theoretical umbrella of the Uses and Gratifications theory (Flaherty et al., 1998; Rubin et al., 1988). This theory is borrowed from mass media and posits that individuals play an active role in choosing media that fulfill their needs and wants (Katz & Blumler, 1973). However, according to this theory, if the goal is known, then the outcome could easily be predicted, no matter what media are chosen, but researchers have not found that to be true with Internet use (McKenna & Seidman, 2006).

In order to understand some of the variances in outcome that are particular to computer-mediated communication, many researchers have used Sproull and Kiesler's (1985) reduced social cues model. According to this perspective, compared to traditional face-to-face communication, computer-mediated communication limits the bandwidth of social interactions. The physical environment, in addition to nonverbal behavior, conveys social cues in face-to-face interactions. Therefore, the reduced available cues in computer-mediated communication produce an impoverished experience, resulting in a

greater sense of anonymity or a deindividuating effect on the individuals involved. These feelings, in turn, induce behavior that is more self-centered and less socially regulated than usual, such as an increase in excited and uninhibited communication – insults, swearing, and hostile behaviors. However, the absence of social cues also creates a tendency for members of all status levels to contribute equally to the discussion (Bargh & McKenna, 2004; Chung, 2003; McKenna & Seidman, 2006).

While these theories, borrowed from other forms of media, shed light on the investigation of computer-mediated communication, they are deficient in positing a theory that is specific to social technology. In an attempt to fill this void, Douglas et al. (2008) conducted a meta-synthesis of qualitative research on the topic of Internet addiction. The primary focus of their study was to integrate findings from the current qualitative literature and secondarily to use those findings to propose a theory on Internet addiction. Using a grounded theory approach, the researchers analyzed ten qualitative articles and developed two sets of organizing constructs. First order constructs came directly from the literature and included themes around antecedents, pull factors, push factors, negative effects, and control strategies. Second order constructs reflected inferences that the authors made regarding the meaning of each of the primary constructs. After analyzing the constructs, the researchers proposed a conceptual model of Internet addiction that is primarily defined by push factors, focusing on inner needs and motivations, and secondarily by the individual's predispositions, such as antecedents and addict profile. The researchers' findings are congruent with the findings of Kraut et al. (2002), who stated that socially engaged and socially disengaged people use the Internet in different ways.

In summary, previous research questions and designs have drawn from existing bodies of knowledge, such as television media research and addictions literature, and then were modified to apply to computer-mediated communication (Papacharissi & Rubin, 2000; Pearson et al., 2010; Rubin et al., 1988). Using those theories, researchers began with a theory, modified from another body of research, and set out to prove or disprove it. Additionally, the research that exists is primarily quantitative in nature and qualitative research is the most holistic method of inquiry for an emerging phenomenon (Douglas et al., 2008). Therefore, at the present time, qualitative methodology, such as grounded theory, beginning with an area of interest and allowing relevant material to emerge from the data, appears to be the best method for answering questions about the impact and influence of social media on the development and maintenance of interpersonal relationships.

CHAPTER III

Methodology

This research study was designed to holistically understand the emerging

phenomenon of computer-mediated communication. Research undeniably demonstrates

that human beings are genetically hardwired to seek and maintain connection with others.

To that end, any technology that impacts our ability to meaningfully connect with others,

such as computer-mediated communication, is important to explore. Therefore, this

grounded theory study examines how relationships might differ in on-line and face-to-

face interactions, and attempts to answer the following research questions:

1. How do young adult users of computer-mediated communication differentiate

   between *use* of and *preference* for computer-mediated communication in an

   effort to understand how computer-mediated communication might *supplant*

   rather than *supplement* face-to-face interactions?

2. Is there a difference in the *quality* of relationship in young adults' experience

   of on-line versus face-to-face interactions?

3. What is the impact of increased engagement with others through computer-

   mediated communication, which involves less sharing of physical space and

   real time, on one's perception of others and self?

The methodology employed to test the research questions is presented in this chapter.

The chapter is organized into five broad sections: research design and analysis, selection

of participants, data collection by study phase, data analysis by methodology, and data

integrity.

Research Design and Analysis

This research study addresses some of the gaps and inadequacies in the current research. Rather than drawing from existing bodies of knowledge that may share only a few characteristics with computer-mediated communication, this study works from the ground capturing young adults' lived experience with computer-mediated communication and its effect on the development and maintenance of meaningful relationships.

According to Merriam (2009), qualitative researchers are "interested in how people interpret their experiences, how they construct their worlds, [and] what meaning they attribute to their experiences" (p. 14). Therefore the purpose of qualitative research is to understand how people make sense of their experiences. To that end, the primary researcher serves as the instrument of data collection and data analysis works inductively to make meaning from the data. The product of qualitative analysis is a richly descriptive understanding of a phenomenon that emerges directly from the words of the participants. Computer-mediated communication is an emerging phenomenon and therefore qualitative research is the most holistic method of inquiry for this topic (Douglas et al., 2008).

This is a primarily qualitative study, however, quantitative data were gathered in the second phase of research to supplement the qualitative data. The purpose of the quantitative data was twofold; first, the quantitative data collected in the second phase were analyzed and used to select a sample of participants, representative of the maximum variation, to participate in follow-up individual interviews. Second, the quantitative data were triangulated with the qualitative data to strengthen internal validity and to enhance

understanding of the qualitative results. The following figure, 3.1, illustrates this grounded theory study with embedded quantitative data collection.

Figure 3.1

Grounded Theory Research Design with Embedded Quantitative Data

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┌──────────┐              ┌──────────┐  quant data  ┌──────────┐
│ QUAL –   │  Recruited   │ Gathered │  used to     │ QUAL –   │
│ Focus    │ Participants │ quant data│ select       │ Individual│
│ Groups   │ ───────────▶ │ on 187   │ purposeful   │ Interviews│
│ (4)      │              │participants│ sample     │ (24)     │
└──────────┘              └──────────┘              └──────────┘
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Data gathered in focus groups informed development of interview questions
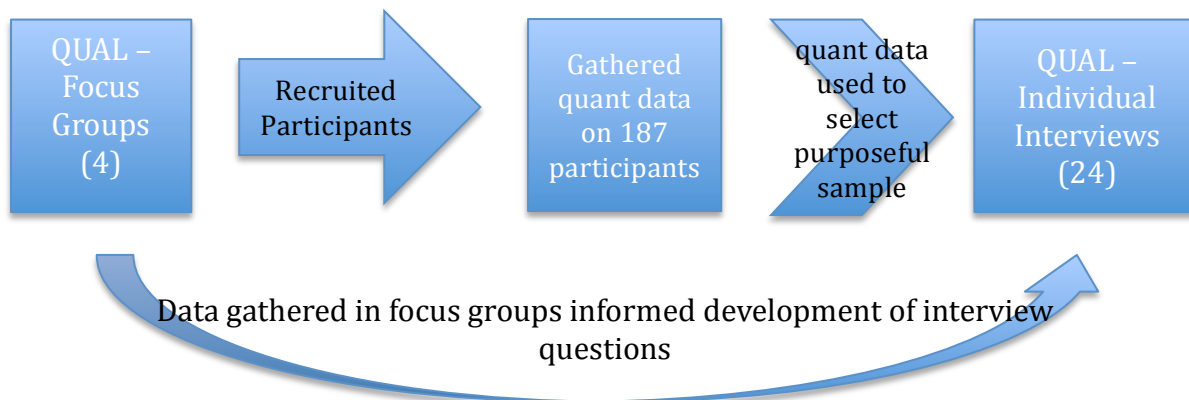
Selection of Participants

Probability sampling, in quantitative research is done with the intention of generalizing results of the study from a sample to the larger population (Merriam, 2009). However, generalization is not a goal of qualitative inquiry, therefore this study utilized a nonprobability sampling technique, called purposeful sampling. Purposeful sampling is an intentional choosing of participants who have expertise in the proposed area of study. With regard to social media use, particularly Facebook, undergraduate college students are definitively the experts on the subject area. The generation born since the end of the 1980s has grown up in an entirely digital era, making their experience of the world different that any generation before them. Today's youth are known as digital natives, or

Homo Zappiens, a tongue-in-cheek reference to the young adult generations' tendency to zap between multiple technologies (Veen & Vrakking, 2006).

Undergraduate students are voracious consumers of social media; a recent study reported that over 95% of college students have a Facebook account and 78% of them access their account at least twice per day (Sheldon et al., 2011). Another study reported that full-time college students are particularly vulnerable to overuse of the Internet due to free and unlimited Internet access on campus, as well as flexible time schedules (Chak & Leung, 2004). Finally, as indicated in the literature review, the majority of research on social media use has been conducted with the undergraduate college population. Therefore, undergraduate students are ideal for this research because of their age, high usage of computer-mediated communication, and emic position as digital natives.

All participants, in all three phases of the study, were undergraduate students at James Madison University, an institution with an enrollment of approximately 20,000 students, located in Harrisonburg, Virginia. This population of undergraduate students was convenient and accessible to the researcher. All participants were enrolled in PSYC 101, General Psychology or PSYC 160, Life Span Human Development. Both courses fulfill undergraduate general education requirements. Each course included a class assignment in which students may choose to read and critique research articles or to participate in research experiences. If the course participants elected to participate in research experience to fulfill their class assignment, they joined James Madison University's research participant pool, a system through which students are matched with ongoing research projects. In order to sign up for this research study, participants accessed an on-line list of available research projects through Sona Systems software.

Students reviewed available research projects and the requirements of each project and created a reservation to participate in the study of their choice. All participants received research credit to meet course requirements in exchange for participating in the research study.

First phase. The first phase of this study involved recruiting 30 undergraduate students to participate in four focus groups to discuss their use of computer-mediated communication. Focus groups were conducted as a preliminary step in the research study to strengthen the investigation's validity and to assist the researcher in bracketing her biases during the development of third phase semi-structured interview protocols. Participants were recruited through the research participant pool to engage in a "Social Media Focus Group." The recruitment site posted the following abstract: "Participants will meet in a group format with other JMU undergraduate students in an open discussion about Facebook." The group was scheduled to last for up to 120 minutes and was worth two research credits. The detailed description stated:

> In focus groups, participants will be asked questions about the amount of time
> they communicate on-line, what topics they discuss on-line, with whom they
> confide on-line and off-line, what purposes they have for communicating on-line
> and off-line, what benefits and limitations they perceive in both on-line and off-
> line communication, rules or norms of mediated communication use, how can
> intimacy be defined and maintained both on- and off-line, and what qualities
> make for a strong relationship.

Two groups were scheduled in the late morning and two groups were scheduled in the early evening to maximize access to participants. Allowing for attrition, each focus

group timeslot permitted a maximum of nine participant registrations, aiming for an ideal number of seven to eight attendants in each group.

In actual attendance, the first focus group consisted of seven participants, including five females and two males. The second focus group was the largest with 10 participants, including eight females and two males. All seven of the participants in the third group were females. Finally, the fourth focus group, which was the smallest with six participants, included four females and two males. The participants did not provide any demographic information beyond the researcher's observations; of the 30 participants, 10% were students of color while the remaining participants were White.

Second phase. The second phase of the research project involved recruiting a minimum of 100 undergraduate students to provide quantitative data about their use of computer-mediated communication. Participants were recruited through the research participant pool to engage in an on-line "Social Media Survey." The recruitment site posted the following abstract: "Participants will participate in an on-line survey regarding their use of mediated communication with an emphasis on Facebook." The survey was scheduled to take up to 120 minutes and was worth two research credits. The detailed description stated:

> Participants will provide information regarding their use of mediated communication, specifically Facebook, through an on-line survey. They will be asked basic demographics, such as age, gender, race, year in school, major, number of years using mediated communication, and type of mediated communication used. They will also be asked a series of questions related specifically to their Facebook use, including the amount of time they spend on the

site daily, how long ago they joined, frequency of logging on, number of Facebook friends, number of Facebook friends they have never interacted with in person, number of Facebook friends with whom they interact regularly off-line, and overall satisfaction with Facebook. Additionally, participants will be asked about their recent interpersonal interactions, such as how frequently participants engaged in a variety of solitary activities (ie., eating dinner alone) and a variety of social activities (ie., eating dinner with a friend) during the previous two weeks, as well as the nature of their current romantic relationship status. In addition, participants will be asked to complete several instruments, including the Revised UCLA Loneliness Scale, the Generalized Problematic Internet Use Scale 2, the Thomas-Kilmann Conflict Mode Instrument, the Facebook Motives Scale, and the Revised Adult Attachment Scale-Close Relationships Version. It is possible that participants may be contacted for a follow-up interview to be conducted later in the semester.

After signing up for the on-line survey, participants were provided with a website URL to complete the research study. Participants were able to access the study at their convenience; the study was to be completed at any time over a four-week time period. The research project was granted 250 administrations of the on-line survey.

In actuality, 291 on-line surveys were submitted. After removing incomplete, non-consenting, and duplicate surveys, 241 surveys remained. Remaining surveys were reviewed with list-wise deletion of all cases missing a value for any instrument variable. List-wise deletion ensured consistent results across various analyses, leaving a total of 187 surveys for the final quantitative analysis; 122 of the participants agreed to be

contacted for a follow-up individual interview. The research sample was not a diverse

group; the James Madison University (www.jmu.edu/about/fact-and-figures.shtml)

population is 60% female and 40% male, but the participant sample was

disproportionately female, representing 87.7% of the sample. With regard to ethnicity,

the sample was more representative of the University population, neither of which are

particularly diverse; the University reports an 80.9% White demographic and the sample

reported a 90.4% White demographic. Detailed demographic data regarding the survey

participants' age, gender, and ethnicity are presented in their entirety in the results

chapter.

Final phase. The quantitative data collected in the second phase were analyzed

and used to select a sample of participants, representative of the maximum variation of

survey participants, to participate in follow-up individual interviews. Using quantitative

extreme values, 47 invitations were extended to previous survey participants, 26

participants accepted the invitation and 24 were interviewed. Of the 24 interviewees, 19

were female, one of whom identified as an international student and the remainder as

Caucasian, and five were male, one of whom identified as African American and the

remainder as Caucasian. The interviewees ranged from 18 to 22 years of age. Nine were

freshmen, eight were sophomores, five were juniors, and two were seniors.

Data Collection

This study was conducted in three phases, using multiple sources of

documentation: focus groups, on-line questionnaires, and individual interviews. Prior to

beginning the data collection process, permission to conduct the research study was

obtained from James Madison University's Institutional Review Board (see Appendix A).

The researcher submitted a brief introduction to the study, a thorough explanation of the data collection procedure, including informed consent forms for each phase of study, focus group protocols, and copies of instrument questions, and the planned data analysis procedures for board review. This study employed both qualitative and quantitative research methodology for data collection, which will be explained by research phase.

Phase one: The focus group process. The first phase of data collection employed four focus groups, each comprised of six to ten undergraduate students, to talk about their use of social media. A focus group is a group interview or discussion (Merriam, 2009). Ideally, it is comprised of six to ten participants, who are strangers to one another, and knowledgeable about the subject area. The issue of social media is an ideal topic for a focus group discussion as it is not sensitive, highly personal, or culturally inappropriate to discuss. Furthermore, the primary researcher was a licensed professional counselor, an ideal moderator due to her understanding and awareness of group processes.

Participants signed up to participate in the focus group via the research participant pool. All of the focus groups were conducted in a classroom on the campus of James Madison University that was specifically scheduled and designated for the purpose of conducting a confidential focus group. When participants arrived they each received two copies of the Informed Consent document (see Appendix B), one purple and one white, each marked with a unique alphanumeric code identifier. Additionally, they received a name tag marked with the corresponding alphanumeric code for identification purposes within the group, a writing utensil, and a note card to jot down any thoughts to be shared with the group or the researcher. The consent form was reviewed and after all questions had been answered, participants were asked to sign the white copy of the consent form

and return it to the researcher. The purple copy was for participants to keep in case of further questions.

After introduction to the research project, the moderator followed a semi-structured focus group protocol (see Appendix C) asking participants a series of questions regarding the amount of time they communicate on-line, what topics they discuss on-line, with whom they confide on-line and off-line, what purposes they have for communicating on-line, what benefits and limitations they perceive in both on-line and off-line communication, rules or norms of mediated communication use, how intimacy can be defined and maintained both on- and off-line, and what qualities make for a strong relationship. Each focus group lasted approximately 90 minutes, and each focus group interview was digitally recorded and transcribed by a paid professional transcriptionist, with specific permission of each participant. All focus group data, including signed Informed Consent documents, note cards, original recordings, and written transcripts were stored in the primary researcher's locked counseling office that meets HIPAA requirements for confidentiality.

Focus groups were conducted as a preliminary step in the research study to strengthen the investigation's validity and to assist the researcher in bracketing her biases during the development of third phase semi-structured interview protocols. The focus group process was intended as an opportunity for the researcher to be brought into the lived experiences of undergraduate college students and their relationship with social media. The focus group data were used to inform the development of semi-structured individual interview protocols used in the final phase of the research project.

Phase two: The survey process. The second phase of the research project was conducted simultaneous to the first phase. It included the administration of an on-line survey about undergraduate college students' use of computer-mediated communication, specifically Facebook. Participants elected to participant in the on-line survey via the participant research pool. After registering, participants were provided with a website URL to access the on-line survey; the survey was developed using Qualtrix software. As soon as the survey was accessed, participants were provided with an Informed Consent document, which required electronic consent in order to proceed (see Appendix D). After providing electronic consent, participants were informed about the third phase of the research study and asked if they were willing to be contacted for participation in follow-up individual interviews. Of the 187 survey participants, 122 agreed to be contacted to participate in the third phase of research. All survey data were stored electronically on a password-protected computer in the primary researcher's locked counseling office that meets HIPAA requirements for confidentiality.

As part of the on-line survey, participants were asked basic demographics, such as age, gender, race, year in school, major, number of years using computer-mediated communication, type of computer-mediated communication used, and the environment in which they use it. They were also asked a series of questions related specifically to Facebook use, including the amount of time they spend on the site daily, how long ago they joined, frequency of logging on, number of Facebook friends, number of Facebook friends they have never met in person, number of Facebook friends with whom they interact regularly off-line, and overall satisfaction with Facebook (Sheldon, 2008). Additionally, participants were asked about their recent interpersonal interactions, such as

how frequently they engaged in a variety of solitary activities (ie., eating dinner alone) and a variety of social activities (ie., eating dinner with a friend) during the previous two-week time period. Finally, participants were asked the nature of their current romantic relationship status (Russell et al., 1980) as stated on their Facebook account.

Additionally, participants were asked to complete several instruments, including the Revised UCLA Loneliness Scale (Russell, 1996; Russell et al., 1980), the Generalized Problematic Internet Use Scale 2 (Caplan, 2010), the Thomas-Kilmann Conflict Mode Instrument (Thomas & Kilmann, 1974), the Facebook Motives Scale (Sheldon, 2008), and the Revised Adult Attachment Scale-Close Relationships Version (Collins, 1996).

Instrumentation. All of the quantitative data collection instruments were purposefully selected for this study with the intent to either replicate or extend previous research. Previous quantitative research has examined the effect of computer-mediated communication on aspects of psychosocial well-being, such as loneliness, depression, and social anxiety. Out of all the psychosocial constructs, loneliness has been the most frequently studied and although it seems to have a logical relationship to computer-mediated communication, it has not been empirically validated as a definitive predictor of problematic use of the Internet. In a effort to shed additional light on this debate, the Revised UCLA Loneliness Scale (Russell et al., 1980) was included to provide further clarification of the relationship between computer-mediated communication and loneliness.

The Revised UCLA Loneliness Scale (Russell et al., 1980) is a 20-item self-report assessment designed to measure subjective feelings of general loneliness (see Appendix E). The scale consists of ten items reflecting satisfaction with social relationships, such

as "I feel in tune with people around me" and "I can find companionship when I want it." In addition, the scale has ten items reflecting dissatisfaction with social relationships, such as "I lack companionship" and "My social relationships are superficial." Participants are asked to indicate how often the given statements describe how they feel on a four-point scale ranging from (1) never to (4) often. To score, the items indicating satisfaction with social relationships are reversed and then the twenty items are summed into an aggregate score. For interpretative purposes, the higher the numerical score, the greater the loneliness.

The Revised UCLA Loneliness Scale has high internal consistency with an alpha coefficient of .94 (Russell et al, 1980). The scale's concurrent validity is high as indicated by significant correlations with other emotions commonly associated with loneliness, such as depression, hopelessness, isolation, and social dissatisfaction. One of the criticisms of the Revised UCLA Loneliness Scale (Russell, 1996) is that the scale has been primarily normed on the college age population. Due to the undergraduate student sample of the current study, this limitation was not problematic.

The Generalized Problematic Internet Use Scale 2 (Caplan, 2010) is designed to define and measure cognitions and behaviors related to problematic Internet use, not linked to specific content, such as pornography, gambling, or shopping (see Appendix F). This is a revised assessment scale designed to specifically measure key cognitive symptoms of generalized problematic Internet use, such as preference for on-line social interaction, the use of the Internet to regulate mood, deficient self-regulation, resulting in cognitive preoccupation with the Internet, as well as compulsive Internet use, and negative outcomes of these behaviors. The Generalized Problematic Internet Use Scale 2

was chosen for the current study because this recently revised scale has an operationalized subscale for preference for on-line communication, which directly addresses one of the research questions regarding use of versus preference for computer-mediated communication.

The Generalized Problematic Internet Use Scale 2 (Caplan, 2010) consists of 15 items, such as "On-line social interaction is more comfortable for me than face-to-face interaction" and "I think obsessively about going on-line when I am off-line." Participants are asked to endorse each statement by rating the extent to which they agree or disagree with each item on a scale ranging from (1) definitely disagree to (8) definitely agree. The strength of the agreement is indicative of the intensity of the presence of problematic Internet use. Within the assessment, there are five subscales, each consisting of three questions that measure four constructs: preference for on-line social interaction, mood regulation, deficient self-regulation (which includes the compulsive use subscale and the cognitive preoccupation subscale), and negative outcomes. To score, results of the 15 items are summed, with a possible range of scores from 15 to 120 and the higher number indicates greater problematic Internet use.

The Generalized Problematic Internet Use Scale 2 is a recently developed scale and has limited information regarding validity and reliability. In a recent study, Caplan (2010) found that the scale demonstrated good reliability on individual subscales, with Cronbach's alpha ranging from .82 to .87 and an overall reliability composite score of .91. The confirmatory factor analysis indicated good face validity and adequate construct validity with beta coefficients ranging from .40 ($p < .001$) to .78. The scale needs future research to confirm reliability and validity as well as test-retest reliability.

In the researcher's clinical practice, one of the notable themes was client use of computer-mediated communication to avoid risk and conflict. There is no research, however, on use of computer-mediated communication and conflict management approaches. Therefore, the Thomas-Kilmann Conflict Mode Instrument (Thomas & Kilmann, 1974) is included to explore a potentially uncharted area of research.

The Thomas-Kilmann Conflict Mode Instrument (Thomas & Kilmann, 1974.) was published in 1974 and is designed to identify interpersonal conflict-handling modes. It consists of 30 forced-choice pairs. Each pair is associated with one of five conflict-handling modes and participants must choose one of the statements in each pair that better describes their own typical behavior. For example, participants are asked to choose between "(A) I am usually firm in pursing my goals" and "(B) I attempt to get all concerns and issues immediately out in the open."

Five modes for handling conflict are identified and described along two dimensions ranging from assertiveness (concern for self-interest) to cooperativeness (concern for others). The five conflict modes include competing (assertive and uncooperative), avoiding (unassertive and uncooperative), accommodating (unassertive and cooperative), collaborating (assertive and cooperative) and compromising (intermediate assertive and cooperative). To score the instrument, results are summed by conflict mode. Each mode score can range from 0-12. For interpretative purposes, scores are divided into quartiles. Approximate cut-off points for the bottom quartile are scores of three or below for competing and accommodating, scores of four or below for avoiding and compromising, and a score of five or below for collaborating. Cut-off scores for the upper quartile are a score of seven or above for accommodating, a score of

eight or above for avoiding, scores of nine or above for competing and compromising, and a score of ten or above for collaborating.

The Thomas-Kilmann Conflict Mode Instrument (Thomas & Kilmann, 1974) demonstrates adequate internal consistency with alpha coefficients ranging from .43 to .71. The average test-retest reliability is .64. However, one reviewer (Womack, 1988) cautioned against use of the Thomas-Kilmann Conflict Mode Instrument, stating that social desirability effects account for approximately 17% of the variance across mode scores. Additionally, the two-underlying factors, assertiveness and cooperativeness only account for 56% of the variance across the five conflict modes, an indication of weak construct validity. A second review by Konovsky, Jaster, and McDonald (1989) confirmed that factor analysis of the measurement tool did not support the underlying two-dimension configuration.

The Facebook Motives Scale (Sheldon, 2008) was included to examine what motivates some people to supplement their face-to-face interactions, while others supplant their face-to-face communication with computer-mediated communication (see Appendix G). The Facebook Motives Scale is constructed from a pool of motivations and gratifications was assembled from prior Internet gratification studies (Flaherty et al., 1998; Papacharissi & Rubin, 2000) and then reworded to specifically apply to Facebook users' needs. The scale consists of six subscales labeled relationship maintenance, passing time, virtual community, entertainment, coolness, and companionship. The scale consists of 26 items related to motivation for using Facebook, such as "To stay in touch with friends" and "It is entertaining." Participants' motivation is assessed on a five-point Likert scale ranging from (1) not at all to (5) exactly "like my reason for using Facebook."

To score, results of the individual subscales are summed, with a varied range of possible scores. The subscales, relationship maintenance, consists of six items and possible scores range from 6-30; passing time, consists of four items and possible scores range from 4-20; virtual community and entertainment, both consist of five items each and each subscales' possible scores range from 5-25; and coolness and companionship, both consist of three items each and possible scores range from 3-15.

In a recent study, Sheldon (2008) found that the scale demonstrates good reliability on individual subscales with Cronbach's alpha ranging from .76 to .90. Additionally, the combined scales accounted for 60% of the variance in Facebook use. In a second study (Sheldon & Honeycutt, 2009) only two subscales were used, passing time, $\alpha = .84$ and virtual community, $\alpha = .80$. Additional analysis confirmed convergent validity as indicated by the variance extracted estimate of .56 for both subscales and discriminate validity as indicated by the squared inter-construct correlations of .04 for both subscales. The scale is newly constructed and needs future research to confirm reliability and validity as well as test-retest reliability.

Finally, the Revised Adult Attachment Scale-Close Relationships Version (Collins, 1996) was selected to capture styles of adult attachment that may highlight the differences in connection between high users of computer-mediated communication and low users of computer-mediated communication. The Revised Adult Attachment Scale-Close Relationships Version (Collins, 1996) is an 18-item self-report assessment designed to measure subject feelings about relationships with important, significant others (see Appendix H). The scale consists of items such as, "I find it difficult to trust others completely," and "I know that people will be there when I need them." Items are

measured on a five-point Likert scale ranging from (1) not at all characteristic of me to (5) very characteristic of me. Participants are asked to indicate how characteristic the given items describe their general feelings in a close relationship.

To score, seven of the items are reverse scored and then the items are summed and averaged along three subscales, including a Close, Depend, and Anxiety subscale score. The Close subscale measures a person's comfort with closeness and intimacy. The Depend subscale measures the extent to which a person feels he or she can depend on others to be available when needed. The Anxiety subscale measures a person's worry about being rejected or unloved. For interpretative purposes, the higher the numeric scores on a given subscale, the greater the participant's feeling of closeness, dependence, or anxiety.

Collins (1996) reported strong internal consistency for the Revised Adult Attachment Scale-Close Relationships Version. In two studies, the Close and Depend subscales were strongly positively correlated (study one $r =.53$; study two $r = .67$) and the Anxiety subscale was moderately negatively correlated with the Close subscale (study one $r =-.34$; study two $r = -.28$) and the Depend subscale (study one $r =-.46$; study two $r = -.46$). Additionally, Cronbach's alphas ranged from .77 to .85 across the three subscales in both studies. A later publication (Collins, 2008) provided three additional samples with Cronbach's alphas ranging from .78 to .85 across the three subscales. Finally in a 25-year review of the utility of 29 instruments measuring attachment (Ravitz, Maunder, Hunter, Sthankiya, & Lancee, 2010), the Adult Attachment Scale was reported to have moderate levels of reliability and high levels of validity in comparison with other popular attachment assessments.

Phase three: The interview process. The third and final phase of data collection employed semi-structured individual interviews. An interview is a conversation between the researcher and a participant focused on questions related to the area of research interest (Merriam, 2009). Interviews were employed to gain a personalized perspective on the topic of social media and the influence on interpersonal relationships.

Interview participants were selected out of the larger pool of phase two survey participants; 122 survey participants had agreed to be contacted for participation in a follow-up interview. The quantitative data collected in the second phase were analyzed, and using quantitative extreme values, initially delivered 16 participants, representative of the maximum variation of survey participants, to participate in follow-up individual interviews. Participants were solicited for participation via e-mail (see Appendix I). If there was no response, participants were sent a second request for an interview three days after the first e-mail. The initial 16 invitations yielded nine interviews. A second round of invitations, again based on quantitative extreme values, resulted in an e-mail solicitation of an additional 31 participants. Of these, 16 accepted and were interviewed, resulting in a total of 24 interviews. This resulted in a 51% acceptance rate.

Individual interviews were conducted in a classroom on the campus of James Madison University that was specifically scheduled and designated for the purpose of conducting a confidential interview. Upon arrival to the interview, the participant received two copies of the Informed Consent document (see Appendix J), one purple and one white, each with a unique alphanumeric identifier that corresponded with his or her phase two quantitative survey data. The consent form was reviewed and after all questions had been answered, the participant signed the white copy of the consent form

and returned to the researcher. The purple copy was for the participant to keep in case of further questions.

After introduction to the research project, the interviewer followed a semi-structured interview protocol (see Appendix K). The semi-structured protocol is an interview guide of interview questions and issues to be explored in a flexible process (Merriam, 2009). Questions for the interview protocol were drawn from and guided by information gathered during the phase one focus groups, and follow-up questions were developed spontaneously based on the interviewee's responses. The structured questions were purposefully worded as open-ended questions, designed to elicit information about the interviewee's experience with social media. Based on the emerging themes, questions for subsequent interview protocols were revised to further explore the emerging theory of computer-mediated communication (see Appendices L, M, and N). Depending on the protocol, interviews lasted 40 to 60 minutes, and each interviewee received one research credit for their participation. Each interview was digitally recorded and transcribed by a paid, professional transcriptionist, with the specific consent of each interviewee. All individual interview data, including signed Informed Consent documents, original recordings, and written transcripts were stored in the primary researcher's locked counseling office that meets HIPAA requirements for confidentiality.

Data Analysis

This study employed both qualitative and quantitative methodology for data analysis. The two methodologies will be explained separately.

Phase one and phase three: Qualitative method. The qualitative analysis of the focus group and interview data was completed using grounded theory methodology,

which is a systematic method involving the discovery of theory through the analysis of data (Charmaz, 2006). Unlike traditional scientific research, grounded theory is conducted in reverse fashion, beginning with data collection and ending with a hypothesis. After the data is collected, codes are extracted from the text, which are eventually condensed into workable themes that come together to form a theory about the studied phenomenon. Through the process of coding and categorizing the researcher is analyzing the data for similarities and differences through constant comparison.

Three focus groups and 22 individual interviews were digitally recorded and transcribed by a paid, professional transcriptionist. Transcripts were initially coded with open, line-by-line coding, meaning that each line of written data was given a name. These were not pre-existing names or codes; instead codes were provisional, comparative, and grounded in the data (Charmaz, 2006). A coding team was created that included the primary researcher, a retired university faculty member, a seasoned psychotherapist, and a student affairs university professional. The team was purposefully given little information about the specific content of the project. They were, however, provided with multiple sources, including articles and YouTube videos, explaining the coding process.

After basic training in the coding process, every team member was provided with duplicate copies of all three focus group transcripts, containing no identifying participant information, to engage in open, line-by-line coding, which they noted by hand in the margins of printed transcripts. The coded transcripts were returned to the primary researcher who consolidated all of the proposed codes into one document. The team then met to discuss, revise, and come to consensus on every code; inter-coder agreement enhances internal reliability. The researcher team's agreed upon codes were entered into

NVivo 10, a research software designed for collection, organization, and analysis of qualitative data.

Next, each team member was provided with five different individual interview transcripts to engage in open, focused coding, handwritten in the margins of the transcripts. Focused coding is a process of coding that uses the most significant or frequently occurring earlier codes to sift through large amounts of data (Charmaz, 2006). In other words, one team member worked on transcripts one through five, while another worked on transcripts six through ten, and the final member worked on transcripts eleven through fifteen. The primary research independently coded all of these transcripts, came to consensus with each individual team member, and entered the agreed upon codes into NVivo 10. At this point, not only was the data reaching saturation, it was clear that team members were coding similarly, so the primary researcher independently engaged in focused coding of interviews 16 through 22.

The open coding process yielded 1,113 unique data codes. At that point, codes were sorted into 159 categories or buckets of related data codes. Eventually those categories were merged into 47 constructs that had relational value within and between categories of data. Those constructs were used to build a richly descriptive theory regarding computer-mediated communication use among young adults and its impact on the development and maintenance of meaningful relationships. Out of the data emerged eight themes: Expressed Preference for Face-to-Face Social Interactions, Tacit Preference for On-line Social Interactions, Qualities of Intimacy, Expressed Motivations for Social Media Use, Unwritten Rules Guiding Social Media Use, Tacit Motivations for Social Media Use, Self Perceptions, and Awareness of Others. Finally, themes from the data

were compared to existing research provided in the initial literature review as well as a secondary literature review, resulting in an enlightening discussion of important issues pertaining to young adult users' of social media.

Phase two: Quantitative method.   Phase two data was collected through an on-line survey developed using Qualtrix software. The data from the survey were exported into an Excel spreadsheet for tidying and scoring before being transferred to SPSS 20.0, where the quantitative analysis of the data was conducted. Initially, 291 surveys were submitted on-line. It was apparent that there were duplicate surveys; after consulting with a fellow doctoral student, the primary researcher decided to retain the first survey completed and eliminate the duplicate (there was a time stamp on each survey). After eliminating non-consenting, unfinished, and duplicate surveys, 241 surveys remained. Again, the primary researcher consulted with a fellow doctoral student and decided to exclude cases list-wise for any survey missing an instrument value in order to maintain a constant *n* value, retaining 187 surveys.

Before beginning analysis, instruments were scored as directed. Additionally, two composite measures, Use of Facebook and Time Alone, were calculated for inclusion in the data. To make these two measures more robust, each variable reflected three individual survey variables. The Use of Facebook variable was a composite variable indicating the amount of Facebook use. It combined data from three individual survey variables, Hours of Facebook Use, Number of Facebook Log-Ons, and Number of On-line Facebook Friends. Using statistical quartiles, each of the individual variables were divided into categories of low, medium, and high and assigned nominal values of 1, 2, and 3, respectively. An average of the three individual values was calculated and used to

represent a robust Use of Facebook variable. The Time Alone variable was a composite

variable indicating how much time an individual spent alone. It combined data from

three individual survey variables, Solitary Activities, Facebook Friends Never Met, and

Number of Confidants (reverse scored). Parallel to the Use of Facebook process, using

statistical quartiles, low, medium, and high categories were developed, assigned

numerical values and averaged to create the composite Time Alone variable.

The purpose for collecting quantitative data was twofold; first, the quantitative

data were analyzed and used to select a sample of participants, representative of the

maximum variation, to participate in follow-up individual interviews. Second, the

quantitative data were triangulated with the qualitative data to strengthen internal validity

and to enhance understanding of the qualitative results. In order to select third phase

participants, the survey data was transferred to SPSS 20.0 for analysis of extreme values.

The researcher generated a list of extreme values or statistical outliers in the data. These

values were found upon examination of the interactions between the Use of Facebook

Variable and the Time Alone Variable with the Problematic Internet Use score, the

Preference for On-line Social Interaction score, each of the three Attachment Style scores,

Close, Depend, and Anxiety, and the UCLA Loneliness score, resulting in eight lists of

extreme values. Additionally, the researcher created a boxplot of each interaction for

visual confirmation of outlying data points. The selection of variables was based on

important concepts previously identified in the literature review, specifically relating to

problematic Internet use, preference for on-line social interaction, and psychosocial

constructs.

In addition to selecting third phase participants, quantitative data were used to compliment the qualitative data in research questions one and two. The quantitative analysis included both descriptive and inferential statistical analysis. Descriptive statistics were performed to describe the participant sample as well as to describe each individual variable (mean, median, mode, etc.). Inferential statistics were used to explore the first research question of this study, *"*How do young adult users of computer-mediated communication differentiate between *use* of and *preference* for computer-mediated communication in an effort to understand how computer-mediated communication might *supplant* rather than *supplement* face-to-face interactions?" through a series of bivariate correlations between the following variables: Social Activities, Solitary Activities, Facebook Friends Never Met, Facebook Friends Interact Regularly, Use of Facebook, Preference for On-line Social Interaction and Compulsive Use of the Internet. The first four variables were survey questions, the fifth was a composite variable of survey data, and the final two variables were scores from the Generalized Problematic Internet Use Scale 2 subscales (Caplan, 2010).

In order to explore research question two, "Is there a difference in the *quality* of relationship in young adults' experience of on-line versus face-to-face interactions?" ineffable qualities such as intimacy and connection were explored. Research question two was explored by performing a series of bivariate correlations between the following variables: Use of Facebook, Time Alone, Preference for On-line Social Interaction, Attachment Styles – Close, Depend and Anxiety, and UCLA Loneliness. The first two variables were composites of survey data, the third variable was a subscale score from the Problematic Internet Use Scale 2, and the final two scores were scores from the Revised

Adult Attachment Scale – Close Relationships Version (Collins, 1996) and the UCLA

Loneliness Scale (Russell et al., 1980) respectively.

Data Integrity

Merriam (2009) addressed procedural fidelity within qualitative research studies

by attending to internal validity, reliability, external validity, and ethics. Internal validity

addresses the question of how well research findings mirror reality. In other words, do

the results capture the phenomenon under observation? As previously stated, within

qualitative research methodology, the research results, are observed, measured, and

reported through the researcher, which makes reality a moving target. However, internal

validity can be reached by establishing true relationships that can be compared to false

relationships in order to enhance the study's credibility (Lunenberg & Irby, 2008).

Keeping that in mind, in an effort to increase internal validity, this research study

employed triangulation in a variety of ways – using multiple methods, multiple sources of

data, and multiple research coders. With regard to multiple methods, this study compared

gathered data against previous research conducted about social media and it embedded

quantitative methodology within the primarily qualitative framework. Additionally, this

study explored multiple sources of data: focus groups, survey data, and individual

interviews. The survey data employed multiple sources of data, including the research

questionnaire and multiple validated instruments.

Further triangulation included having each team member independently code

duplicate transcripts and then compare results allowing for an examination of consistency

within the coding process, increasing internal validity (Merriam, 2009; Richards, 2005).

The team was purposefully composed of professionals with varied interests and expertise

to ensure a variety of worldviews and perspectives when examining the data. Open, line-by-line coding was engaged to ensure that coders refrained from inputting their own thoughts and ideas into the data analysis. In a sense, coding by line is arbitrary and requiring a name for a single line of data does not allow the researcher to stray from the collected data (Charmaz, 2006). Finally, not providing specific content or literature regarding the area of study ensured that the research team would code without bias, as they did not know what the research study was looking to uncover.

Additionally, the research employed focus groups specifically to gather information that would guide and inform the development of research questions for individual interviews. Interview questions were drawn directly from focus group participants' experiences and provided to interviewees to validate the data gathered early on. The process of asking for respondent validation (Merriam, 2009) strengthens internal validity. A final element of internal validity relates to the researcher's position within the project, or researcher reflexivity, which is covered in detail in the next section of this chapter.

Reliability refers to the extent that research findings can be replicated (Merriam, 2009). Within qualitative work, reliability focuses on consistency between results and data. The aforementioned processes, triangulation, respondent validation, and reflexivity all enhance internal validity as well as ensure reliability. Additionally, reliability is enhanced through an audit trail, which documents the research process and how the researcher arrived at conclusions. The primary researcher kept copious notes throughout the process that document the research journey.

Although the goal within qualitative research is not to generate data that are generalizable in the quantitative sense, it does seek to inform the research field through external validity or transferability (Merriam, 2009). In order to enhance the transference of qualitative knowledge, the results of this study were written in rich, thick description, a "highly descriptive, detailed presentation of the setting and in particular, the findings of a study" (p. 227). This allows the reader to so thoroughly understand the results that he or she could sense the similarity between the current study and any replication. Additionally, this study employed a maximum variation sampling technique, further strengthening external validity.

Finally, this study was conducted under high ethical standards. The researcher received the approval of James Madison University's Institutional Review Board and followed all of their recommendations and requirements to ensure ethical treatment of human subjects. Participants were provided with both written and oral explanations of the informed consent process, including an assessment of potential risk, an explanation of confidentiality, and access to follow-up services, if needed.

Researcher as instrument. In order to enhance rigor (Mayan, 2008) within this study, the researcher has examined and recorded her own biases regarding computer-mediated communication. This process, known as reflexivity, includes both personal reflexivity and epistemological reflexivity (Lunenberg & Irby, 2008). Personal reflexivity requires awareness of what the researcher has contributed to the research process. Epistemological reflexivity requires awareness of how worldview assumptions have contributed to the research process.

Certainly, the researcher acknowledges the impossibility of staying outside of the observed phenomenon while conducting the research. Within qualitative inquiry, the researcher is the primary tool of investigation, and as Merriam (2009) stated, the data are unable to speak without the help of an interpreter and one cannot observe or measure a phenomenon without changing it. Therefore, it is impossible to consider that the research presented, from the questions asked to their ultimate interpretation, have not been impacted by the researcher.

The researcher acknowledges a significant bias from the outset of the research process. Initial interest in the research project was generated by anecdotal observation that young adults seeking counseling services were describing interpersonal losses due to social media use. Additionally, parenting an adolescent provided opportunities to observe first hand the pervasiveness of social media and to reflect on the difference between her own generation and "kids these days." Therefore, initial observation of the phenomenon was done through the lens of concern.

Epistemologically, assuming the philosophical stance of a constructivist, the researcher believes that reality is socially constructed. Constructivists purport that there is no objective reality, but multiple truths based on an individual's experiences and beliefs. Congruent with this outlook, the researcher believes there is an enormous amount of observable data, but we notice or tend to the data that resonates with our belief system. In other words, unconsciously, information that is congruent with our worldview is the information that we observe in the foreground of our perceptions. Believing this, and recognizing bias in the researcher's outlook from the very beginning, indicates an important limitation of the current study. While the researcher took many precautions, as

delineated in the earlier section on data integrity, it is impossible for the researcher not to have impacted the outcomes of the study.

Summary

This chapter restated the purpose of the research and the research questions. This research design is a primarily qualitative study that works from the ground capturing young adults' lived experience with computer-mediated communication and its effect on the development and maintenance of meaningful relationships, with an embedded quantitative survey. Participants were recruited from the undergraduate student body at James Madison University, a convenient and purposeful sample. Undergraduate students are ideal for this research because of their age, high usage of computer-mediated communication, and emic position as digital natives. Data collection was reviewed by study phase, including phase one focus groups, phase two survey data, and phase three individual interviews. The review of survey data collection included a detailed discussion of instrumentation. Data analysis included both qualitative and quantitative methodology and was discussed by methodology. Finally, data integrity was addressed in a discussion of reliability and validity as well as reflexivity of the researcher's position within the data. Results of the data analysis are presented in the following chapter.

CHAPTER IV

Results

The purpose of this mixed methods study was to examine young adults' use of

social media, qualities of their interpersonal relationships, and the intersection of the two.

This primarily qualitative research study investigated relationship under the theoretical

umbrellas of attachment, existentialism, and neuroscience. In particular, this grounded

theory study examined how relationships might differ in on-line and face-to-face

interactions, and answered the broad question, "What is the impact of increased

engagement with others through computer-mediated communication, which involves less

sharing of physical space and real time, on one's perception of others and self?"

This chapter presents the results of the analysis of the data for the three stated

research questions; it begins with basic demographic information regarding the

participants in each phase of the study, and continues with sections describing the

findings for each of the research questions. The first research question, "How do young

adult users of computer-mediated communication differentiate between *use* of and

preference for computer-mediated communication in an effort to understand how

computer-mediated communication might *supplant* rather than *supplement* face-to-face

interactions?" is answered through a series of bivariate correlations between variables,

Social Activities, Solitary Activities, Use of Facebook, Facebook Friends Never Met,

Facebook Friends Interact Regularly, Preference for On-line Social Interaction and

Compulsive Use of the Internet. Additional qualitative data are provided to enhance

understanding of times when computer-mediated communication is preferable for

interpersonal interactions and when face-to-face communication is the preferred mode.

The second research question, "Is there a difference in the *quality* of relationships in young adults' experience of on-line versus face-to-face interactions?" is explored through a series of bivariate correlations between the following variables: Use of Facebook, Time Alone, Preference for On-line Social Interaction, Attachment Style – Close, Depend, or Anxiety, and UCLA Loneliness. In this case, however, the quantitative data are provided as a secondary data source; research question two is answered primarily through qualitative data related to qualities of intimate relationships and perceived differences between on-line and face-to-face interactions.

Finally, research question three, "What is the impact of increased engagement with others through computer-mediated communication, which involves less sharing of physical space and real time, on one's perception of others and self?" explores the heart of the investigation and is addressed entirely through qualitative data creating a comprehensive picture of both young adults' specialized use of social media and social media's impact on perceptions of others and self.

Demographic Statistics

All participants were undergraduate students at James Madison University, an institution with an enrollment of approximately 20,000 students, located in Harrisonburg, Virginia. They were enrolled in PSYC 101 General Psychology or PSYC 160 Life Span Human Development. Both courses fulfill undergraduate general education requirements. Each course included a class assignment in which students may choose to read and critique research articles or to participate in research experiences.

First Phase

The first phase of this study involved recruiting 30 undergraduate students to participate in four focus groups to discuss their use of computer-mediated communication. Focus groups were conducted as a preliminary step in the investigation to strengthen the research project's internal validity and to assist the researcher in bracketing her biases during the development of third phase semi-structured interview protocols. The first focus group consisted of seven participants, including five females and two males. The second focus group was the largest with 10 participants, including eight females and two males. All seven of the participants in the third group were females. Finally, the fourth focus group, which was the smallest with six participants, included four females and two males. The participants did not provide any demographic information beyond the researcher's observations, which are recorded in Table 4.1.

Table 4.1

Ethnicity and Gender of Focus Group Participants

	Students of Color		White Students		
	Female	Male	Female	Male	**Totals**
Group A	1	0	4	2	7
Group B	2	0	6	2	**10**
Group C	0	0	7	0	7
Group D	0	0	4	2	6
Totals	**3**	**0**	**21**	**6**	**30**

Note. Demographic information is based entirely on researcher observation

Second Phase

The second phase of the research project set a minimum goal of 100 undergraduate students to provide quantitative data about their use of computer-mediated communication. In actuality, 291 on-line surveys were submitted. After removing incomplete, non-consenting, and duplicate surveys, 241 remained. Remaining surveys

were reviewed with list-wise deletion of all cases with a missing value for any instrument variable. List-wise deletion ensured consistent results across various analyses, leaving a total of 187 surveys for the final quantitative analysis; 122 participants agreed to be contacted for a follow-up individual interview. Demographic data regarding the survey participants' age, gender, and ethnicity are provided in Table 4.2.

Table 4.2

Ethnicity, Gender, and Age of Survey Participants

Gender			Ethnicity						Total
			Asian/Pacific Islander	African American	Caucasian	Hispanic	Inter-national	Multi-ethnic	
Female	Age	18	1	1	74	1	0	1	78
		19	0	2	47	1	0	0	50
		20	1	0	19	0	1	1	22
		21	0	1	7	2	0	0	10
		22	1	0	3	0	0	0	4
	Total		3	4	150	4	1	2	164
Male	Age	18	1	0	4	0	0	0	5
		19	1	0	9	0	0	0	10
		20	0	2	3	0	0	0	5
		21	0	0	1	0	0	0	1
		22	0	0	2	0	0	0	2
	Total		2	2	19	0	0	0	23
Total	Age	18	2	1	78	1	0	1	83
		19	1	2	56	1	0	0	60
		20	1	2	22	0	1	1	27
		21	0	1	8	2	0	0	11
		22	1	0	5	0	0	0	6
	Total		5	6	169	4	1	2	187

Final Phase

The quantitative data collected in the second phase were analyzed and used to select a sample of participants who represented the maximum variation for participation in follow-up individual interviews. Using quantitative extreme values, 47 invitations were extended to previous survey participants, 26 participants accepted the invitation and 24 were interviewed. Of the 24 interviewees, 19 were female, one of whom identified as an international student and the remainder as Caucasian, and five were male, one of whom identified as African American and the remainder as Caucasian. The interviewees ranged from 18 to 22 years of age. Nine were freshmen, eight were sophomores, five were juniors, and two were seniors.

Organization of Results

This chapter presents the results of the data analysis for the three stated research questions; it is divided into sections describing the findings for each of the research questions. Research questions one and two begin with quantitative data analysis, to enhance the contextual understanding of the subsequent qualitative data results. Research question three presents only qualitative data results. The qualitative data are organized into four major categories and presented sequentially, by research question.

Relationships within the data are illustrated at the beginning of each section with an organizational chart. Each chart is headed by a broad category of data, which directly relates to the research question explored. Each research question describes one or two broad categories of data, which are divided into themes, representing the theoretical constructs emerging from the qualitative data. All themes are divided into subthemes, which are clusters of data, representing the various elements included under the theme.

Some subthemes are further divided into factors, which are subdivided into nodes. Nodes are the smallest units of data presented in the research. Figure 4.1, below, is an illustration of the four major categories of qualitative data – Interpersonal Communication Preferences, Qualities of Intimacy, Specialized Use of Social Media, and Perceptions of Others and Self – as they are presented in the chapter. Each category is explored by themes, subthemes, and factors as results are presented.

One final note regarding the presentation of the qualitative data; the qualitative data are gleaned from verbatim transcripts of participants' focus group and individual interview experiences. However, when reporting the results, paralinguistic utterances and words, such as "like," "kinda," and "you know," were removed from the report when those words detracted from understanding the qualitative data statement.

Figure 4.1

Young Adult Users' Lived Experience with Social Media
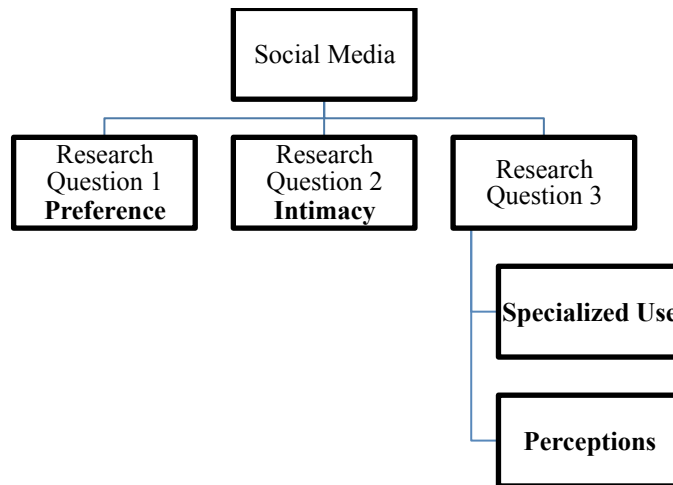
Research Question One

Previous social media research has presented inconsistent results regarding the impact of computer-mediated communication on an individual's ability to create

meaningful interpersonal connections (Ellison et al., 2007; Howard et al., 2001; Hu & Ramirez, 2006; Nie & Erbring, 2002). When considering the potential impact of computer-mediated communication on interpersonal relationships, use of computer-mediated communication, in and of itself, was not indicative of either benefit or harm (Caplan, 2005). Inarguably, social media and other forms of computer-mediated communication have been used in beneficial ways that *supplement* face-to-face interpersonal interactions. However, for some social media users, it has *supplanted* face-to-face communication and therefore, is potentially problematic. In an effort to differentiate between normal social media use and problematic social media use, this study considers users' expressed preference for social media over face-to-face interactions. This consideration led to the first research question of this study, "How do young adult users of computer-mediated communication differentiate between *use* of and *preference* for computer-mediated communication in an effort to understand how computer-mediated communication might *supplant* rather than *supplement* face-to-face interactions?"

Research Question One: Quantitative Results

Both descriptive and inferential statistics were used to address the first research question.   This section begins with descriptive statistics for the following variables: Social Activities, Solitary Activities, Use of Facebook, Facebook Friends Never Met, Facebook Friends Interact Regularly, Preference for On-line Social Interaction and Compulsive Use of the Internet. Prior to analysis, participants were removed from the data list-wise, resulting in a consistent *n* of 187 participants.

Social activities. The Social Activities variable was a self-report measure of the number of face-to-face social activities survey participants had engaged in over the previous two-week time period.   Participants had the option of choosing (1) none, (2) less than 5, (3) 6 to 15, (4) 16 to 25, (5) 26-35, or (6) more than 36 activities. Based on the mean, 4.36, median, 4, and mode, 4, results indicated participants engaged in an average of 16 to 25 social activities over the previous two-week time period. Using the category's mid-point, 20.5, results indicated that participants engaged in at least one, and on several days two, social activities every day over the previous two weeks. No participant chose the category of no social activities, creating a range of 4 and a slight negative skew in the result distribution. Finally, the standard deviation equaled 1.198, an indication that results were widely distributed around the mean.

Solitary activities. The Solitary Activities variable was a parallel self-report measure of the number of solitary activities survey participants engaged in over the previous two-week period. Participants had the option of choosing (1) none, (2) less than 5, (3) 6 to 15, (4) 16 to 25, (5) 26-35, or (6) more than 36 activities. As indicated by the measures of central tendency, mean, 2.90, median, 3, and mode, 3, participants engaged in an average of 6 to 15 solitary activities over the previous two-week time period. Using the category's mid-point, 10.5, results indicated that participants engaged in one solitary activity most, but not every day over the previous two-week time period. There were data in every category, range equaled 5, the results were normally distributed around the mean, and the standard deviation equaled .987.

Use of Facebook. The Use of Facebook variable was a composite variable measuring the amount of Facebook use. It combined data from three individual survey

variables, Hours of Facebook Use (M = 1.42, SD = .637), number of Facebook Log-Ons (M = 7.44, SD = 1.336), and number of on-line Facebook Friends (M = 744.07, SD = 377.104). Using statistical quartiles, each of the individual variables was divided into categories of low, medium, and high and each category was assigned nominal values of 1, 2, or 3 respectively. Averaging the three individual value scores resulted in the Use of Facebook variable. There were data points in every possible category of Use of Facebook, range equaled 2. The mean, 2.00, median, 2, and mode, 2, with a standard deviation of .31157 indicate a leptokurtic distribution with the data tightly distributed around the mean. Based on the results, the average participant indicated that he or she was on Facebook for less than one hour per day, accessed Facebook 2-3 times per day, and had 744 Facebook friends.

Facebook friends never met. The Facebook Friends Never Met variable was a self-report measurement indicating the percentage of Facebook friends participants have never met off-line. Participants were able to choose any percentage between 0 and 100 percent and results were recorded across the full range of options, range equaled 100. As indicated by the mean, 18.15, median, 10, and mode, 0, data points created a positively skewed distribution. Results were widely distributed around the mean as indicated by the standard deviation of 20.136. Based on the results, on average, participants had never met 18%, or almost 1 out of every 5, of their 744 (mean) Facebook friends; an average total of 134 Facebook friends never met off-line.

Facebook friends regularly interact. The Facebook Friends Regularly Interact variable was a self-report measurement indicating the percentage of Facebook friends with whom participants regularly interact off-line. Participants were able to choose any

percentage between 0 and 100 percent and the range equaled 100. The data points

resulted in a positively skewed distribution, as indicated by the mean, 24.41, median, 20,

and mode, 10. The standard deviation equaled 19.095, indicating that the data was

widely distributed around the mean. Based on the results, on average, participants

regularly interact with 24%, or 1 out of every 4, of their 744 (mean) Facebook friends

off-line; an average total of 179 friends with whom participants regularly interact off-line.

Preference for on-line social interaction. The Preference for On-line Social

Interaction variable was calculated from the score on the Preference for On-line Social

Interaction subscale of Caplan's (2010) Generalized Problematic Internet Use Scale, 2

(GPIUS2). Participants were asked three questions:

1. I prefer on-line social interaction over face-to-face communication.

2. On-line social interaction is more comfortable for me than face-to-face
   interaction.

3. I prefer communicating with people on-line rather than face-to-face.

Participants were instructed to rate the extent to which they agreed with each of the

statements on a scale that ranged from (1) definitely disagree to (8) definitely agree.

Possible scores ranged from 3-24 and the range equaled 19 because no data were

collected for the two uppermost scores. The resulting distribution was positively skewed,

as indicated by the mean, 7.82, median, 7, and mode, 3. The standard deviation equaled

3.995. For interpretation, higher scores indicated more Preference for On-line Social

Interaction, however there is no cut-off score. Certainly, since 7.82 was below the mid-

point, 13.5, of possible scores, it appears that study participants demonstrated a low

Preference for On-line Social Interaction. Interestingly, in comparison to a study by

Caplan (2010), this participant sample scored higher on Preference for On-line Social Interaction than his sample of 424 undergraduate students whose mean score equaled 6.26.

Compulsive use. The Compulsive Use variable was computed from the score on the Compulsive Internet Use subscale of Caplan's (2010) Generalized Problematic Internet Use Scale, 2 (GPIUS2). Participants were asked three questions:

1. I have difficulty controlling the amount of time I spend on-line.

2. I find it difficult to control my Internet use.

3. When off-line, I have a hard time trying to resist the urge to go on-line.

Participants were instructed to rate the extent to which they agreed with each of the statements on a scale that ranged from (1) definitely disagree to (8) definitely agree. Possible scores ranged from 3-24 and the range equaled 20 because no data were collected for the uppermost score. The resulting distribution was positively skewed, as indicated by the mean, 8.28, median, 6, and mode, 3. The standard deviation equaled 5.012, indicating that scores were widely distributed around the mean. For interpretive purposes, higher scores indicated more Compulsive Use of the Internet, however there is no cut-off score. Since 8.28 was below the mid-point, 13.5, of possible scores, it appears that study participants demonstrated low Compulsive Use of the Internet. However, in comparison to Caplan's (2010) study, this participant sample scored higher in Compulsive Use of the Internet than his sample of 424 undergraduate students whose mean score equaled 7.27.

Inferential statistics. A series of bivariate correlations were conducted between the aforementioned variables: Social Activities, Solitary Activities, Use of Facebook,

Facebook Friends Never Met, Facebook Friends Regularly Interact, Preference for On-line Social Interaction and Compulsive Use. Pearson's correlation coefficients were calculated between the variables to identify statistically significant relationships. As seen in Table 4.3, Preference for On-line Social Interaction was negatively correlated with Social Activities, $r = -.232$ and Facebook Friends Regularly Interact, $r = -.239$ (both ps $< .01$). Additionally, Preference for On-line Social Interaction was positively correlated with Compulsive Use, $r = .452, p < .01$, Solitary Activities, $r = .186, p < .05$ and Use of Facebook, $r = .175, p < .05$. The correlation results explain how preference for on-line social interaction relates to both use of Facebook and face-to-face interactions. Based on the correlation results, as Preference for On-line Social Interaction increased, so did the number of Solitary Activities, Use of Facebook, and Compulsive Use of the Internet. More revealing, however, as Preference for On-line Social Interaction increased the number of Social Activities decreased, as well as the number of Facebook friends with whom participants regularly interact off-line, an indication that Preference for On-line Social Interaction may result in users who supplant, rather than supplement, their off-line interactions.

Table 4.3

Intercorrelational Matrix

	Social	Solitary	Never Met	Regular Interact	Use	POSI	Comp. Use
Social Activities							
Solitary Activities	.017						
FB Friends Never Met	-.119	-.057					
FB Friends Regular Interact	.061	-.089	-.108				
Use	.153*	-.092	.218**	.042			
GPIUS2-POSI	-.232**	.186*	.119	-.239**	.175*		
GPIUS2-Compulsive Use	-.063	.110	.038	-.097	.248**	.452**	

Note. In all cases, N = 187
* Correlation is significant at the .05 level (2-tailed).
** Correlation is significant at the .01 level (2-tailed).

Additionally, as seen in Table 4.3, Use of Facebook was positively correlated with not only Preference for On-line Social Interaction, as previously discussed, but also Social Activities, $r = .153$, $p < .05$, Facebook Friends Never Met, $r = .218$, $p < .01$, and compulsive use of the Internet, $r = .248$, $p < .01$. The Use of Facebook variable was positively correlated with all three variables, indicating that as one variable increased so did the other. However, this particular combination of results appears to be counter-intuitive, in that Preference for On-line Social Interaction and Use of Facebook were positively correlated with each other but have opposing correlations with Social Activities; Preference for On-line Social Interaction was negatively correlated with Social Activities and Use of Facebook was positively correlated with Social Activities. These results mirror the contradictions found in previous research and may be explained by the qualitative data in which some participants indicated they use Facebook to make off-line social plans.

Results indicated that Preference for On-line Social Interaction and Use of Facebook are important factors in differentiating between normal and problematic use of computer-mediated communication. While both variables had multiple statistically significant correlations, it is important to consider the level of practical significance by examining the power of the correlation, as determined by the coefficient of determination. The coefficient of determination, R^2, indicated that Preference for On-line Social Interaction accounted for 3.4% of the variability in Solitary Activities, 5.3% in Social activities, 5.7% in Facebook Friends Regularly Interact, 3.1% in Use of Facebook, and 20.4% in Compulsive Use of the Internet, meaning that Preference for On-line Social Interaction accounted for 37.9% of the total variability. Additionally, Use of Facebook

accounted for 2.3% of the variability in Social activities, 4.8% in Facebook Friends Never Met, and 6.2% of Compulsive Use of the Internet, ultimately accounting for 13.3% of the total variability.

Research Question One: Qualitative Results

While the quantitative results indicated that there were statistically significant, albeit small, correlations between multiple variables of preference and use, the qualitative data revealed that participants have a complicated and ambivalent relationship with social media. Research question one focused on the qualitative category, Interpersonal Communication Preferences. Within this category, two themes emerged, an Expressed Preference for Face-to-Face Social Interactions and a Tacit Preference for On-line Social Interactions. In the exploration of themes, subthemes emerged as participants articulated perceived benefits and challenges of both face-to-face and on-line social interaction. Additional factors emerged within a single subtheme, Perceived Challenges of on-line social interactions, relating to Time Spent, Compulsive Use, and Choosing On-line Social Interactions over Face-to-Face Social Interactions. The following figure, 4.1, illustrates the qualitative themes, subthemes, and factors explored under research question one, "How do young adult users of computer-mediated communication differentiate between *use* of and *preference* for computer-mediated communication in an effort to understand how computer-mediated communication might *supplant* rather than *supplement* face-to-face interactions?"

Figure 4.2

Interpersonal Communication Preferences

```
                        ┌──────────────┐
                        │  Preference  │
                        └──────────────┘
              ┌───────────────────┴───────────────────┐
      ┌──────────────┐                         ┌──────────────┐
      │ Face-to-Face │                         │   Facebook   │
      └──────────────┘                         └──────────────┘
              │                           ┌───────────┴───────────┐
      ┌──────────────┐           ┌──────────────┐        ┌──────────────┐
      │   Benefits   │           │   Benefits   │        │  Challenges  │
      └──────────────┘           └──────────────┘        └──────────────┘
              │                           │          ┌──────────┴──────────┐
      ┌──────────────┐           ┌──────────────┐ ┌──────────────┐ ┌──────────────┐
      │  Challenges  │           │  Time Spent  │ │ Compulsive   │ │ Choose Over  │
      └──────────────┘           └──────────────┘ │    Use       │ │ Face-to-Face │
                                         │        └──────────────┘ └──────────────┘
                                 ┌──────────────┐ ┌──────────────┐
                                 │ Checking for │ │  Attempt to  │
                                 │   Updates    │ │  Manage Use  │
                                 └──────────────┘ └──────────────┘
                                 ┌──────────────┐ ┌──────────────┐
                                 │ Frequency of │ │   Negative   │
                                 │   Checking   │ │   Outcomes   │
                                 └──────────────┘ └──────────────┘
                                 ┌──────────────┐
                                 │ Multiple Log-│
                                 │     Ons      │
                                 └──────────────┘
```
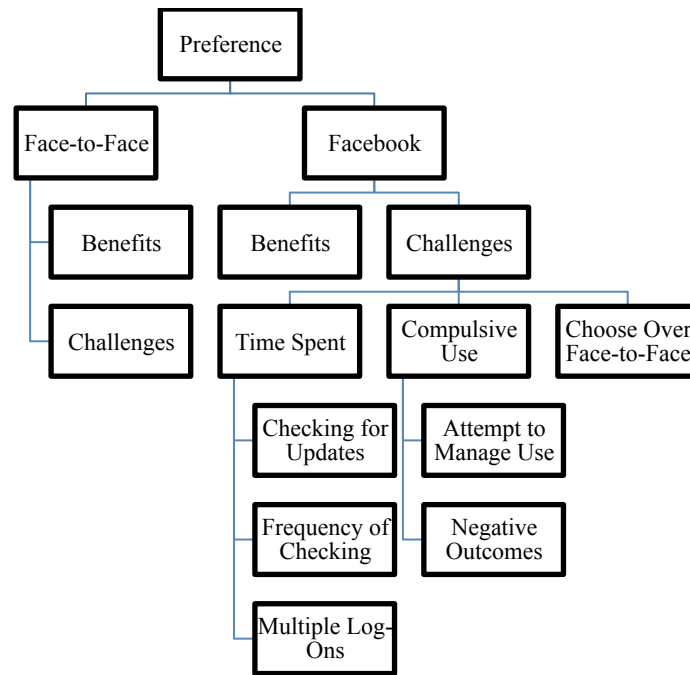
Theme: Expressed preference for face-to-face social interactions. The first

qualitative theme emerging from the data was an Expressed Preference for Face-to-Face

Social Interactions. When participants were questioned about their interpersonal

interactions, most expressed a direct preference for face-to-face communication, making

statements such as, "as much as I can…I like talking to people face-to-face." Others

indicated, "with tiny details e-mailing can be beneficial but face-to-face is better overall."

One participant agreed, indicating that face-to-face conversations are better for lengthy or

detailed conversations:

> [I] would much rather have face-to-face conversations with people than Facebook
>
> conversations with them. A lot of times I don't have the time to sit there and type
>
> everything out. If it's going to be a long conversation, I'd rather go grab lunch
>
> with them…have a good time with somebody rather than just talking on Facebook.

Perceived benefits of face-to-face social interactions. While exploring the theme, Expressed Preference for Face-to-Face Social Interactions, Perceived Benefits of in-person communication emerged as a subtheme. Within this subtheme, participants identified attributes of face-to-face interaction that make it the superior mode for interpersonal communication. They described face-to-face communication as more effective, genuine, and engaging – qualities of an interpersonal encounter (Buber, 1958).

Some participants attributed their preference for face-to-face communication to the perception that face-to-face interpersonal interactions are *more effective* for conveying thoughts and feelings, especially in conversations that were complicated, meaningful, or consequential. For example, one young woman recounted that she had been asked to respond to interview questions on-line and she explained her reservations, "I do better face-to-face just because I feel like writing I don't get everything across. But once I'm talking they can ask more questions and prompt you on and then I do better." Another participant concurred, stating that the current research interview would be less meaningful if it were conducted on-line because she would not be able to express herself as well through written text. She said, "I'd rather talk something than type it. I feel like you can't fully get everything you want out on a blank sheet." Both participants indicated that in the direct encounter with the physical presence of another individual, the prompts and spontaneous feedback improve the process of communication and assists in fully expressing the content they wish to convey.

For others, it is the dynamic *fluidity and spontaneity* of face-to-face interactions that enhance the interpersonal communication process. For instance, one participant said, "my thoughts can be a thousand miles per second and I just can't keep up with it

sometimes when I'm trying to type it out, so I feel like I wouldn't be communicating as well." For her, and a few others, they felt that face-to-face communication benefited from its real time speed, what another interviewee described as conversational flow, adding to the authenticity of the communication process. He believed that in face-to-face communication "you can integrate body language and emotions…you can build off ideas, but when you're talking on-line…one person says something then they hit 'enter' and then you have to wait for their response. There is no flow to it."

In addition to being a more effective mode of communication, other interviewees explained that they preferred face-to-face interactions because they were better *able to truly understand* the other person with whom they were interacting. One participant articulated it in the following way:

> When you spend actual real time or physical time with somebody, you learn more about them. You don't even necessarily have to be talking or anything like that. You can pick up vibes or read their body language and it's a lot easier to realize if you're compatible with them or if you like them.

A similar perspective was captured in this interviewee's statement, "[With] the people that are immediately around me I would much rather be spending time with them in person talking to them, rather than being on Facebook and kind of looking at their life through Facebook." This particular statement revealed the participant's sense that spending time with someone was an active interpersonal interaction, while being on Facebook, "looking at their life," was simply a passive observation of another person.

As one interviewee had previously indicated, much of what can be understood about another needs to occur in person because it includes information beyond the

exchange of words; what he described as "vibes or body language." Many participants agreed that the face-to-face process of receiving and interpreting *nonverbal information* is a key factor in getting a better sense of others and consequentially creating a stronger connection. One young woman said that being able to "really see" someone's reaction creates a stronger interpersonal connection. Another interviewee elaborated:

When I'm talking to someone in person, it's a lot easier to see what they're going through with their nonverbals and so it's easier to gauge where they're going, what my response should be, if I should just be quiet and listen or offer any advice. It's a lot easier to gauge that in person. And if someone needs a hug, you can't really hug them through a computer, so…

Most every participant agreed with the previous statements; there was consensus among participants that one can only really know someone's true thoughts and feelings through an "I-Thou" encounter with another human (Buber, 1958).

Perceived challenges of face-to-face interactions. A second subtheme emerging within the theme, Expressed Preference for Face-to-Face Social Interactions was Perceived Challenges of in-person communication. Interestingly, some of the attributes that participants described as benefits of face-to-face communication were the same qualities that made it more challenging than on-line social interaction. For instance, while the fluidity and spontaneity of face-to-face communication make it a more efficient and more genuine mode of communication, some interviewees described *feeling pressured* by its real time speed.

For instance, one young woman's response alluded to the ambivalence that many participants described when discussing the challenges of face-to-face communication.

She said, "I like to write out what I'm going to say before I actually say it. I have a hard time thinking right on the spot what I'm going to say." This participant described feeling pressured by face-to-face interactions because it puts her on the spot and she might not know what to say "right off the top of [her] head." Like many others, she felt more in control when she wrote out her thoughts than when she expressed herself spontaneously, because she had time to think over her responses, potentially take a break in the communication process, and censor her thoughts. All of these factors are discussed in depth later in the results, under research question three's Specialized Use of Social Media category.

Other participants found face-to-face interactions to be challenging due to the effort required to overcome issues of *accessibility*. One interviewee explained, "It's just hard to make plans with people, they're busy or whatever." While another said, "[The effort] is kind of useless sometimes because you're on different schedules and it's hard to all link up." The challenge of accessibility speaks to the participants' desire to have easy access to one another at all times, hence the appeal of on-line social interactions.

Finally, a few participants discussed the *risk of rejection* in face-to-face interactions. One young woman disclosed that it was risky to say something to someone when you do not know how the other person might react. She felt that written text protects both parties from feeling awkward – a way to "save face" by not having to see the other person's reaction. A young man agreed, simply stating that face-to-face interactions are "harder because [others] might blow you off." They both indicated that the distance created by technology allows interpersonal rejection to feel more tolerable than it would in person.

Interestingly, participants were able to directly express what they perceived as the benefits of face-to-face interpersonal interactions, but expression of the challenges of face-to-face communication were tacitly implied primarily through explanations regarding the appeal of on-line social interactions. Participants seemed to believe that they should prefer face-to-face conversation, and therefore directly expressed that preference. With further discussion, however, they began to express their fears around the demands of face-to-face communication and shared how Facebook, and other forms of social media, allows them to be connected without needing to work through their communication anxieties.

For example, when participants reflected on their preferences, they indicated that they knew they *should* have emotionally laden conversations face-to-face, but social media provides a tempting way out of those difficult conversations, a temptation they often do not resist. One participant elaborated:

> Certain things would be easier on-line, but it's kind of disrespectful. You shouldn't break up with someone on Facebook or anything like that....When you're close to someone you kind of owe them a face-to-face interaction and an actual conversation instead of [being] on Facebook, typ[ing] a sentence to each other.

Another participant agreed that hard conversations should be had in-person but admitted that on-line interactions are, "easier but not maybe better sometimes. It would be better to talk face-to-face but it's kinda easier to talk on-line." These statements indicated that participants understood that the easiest mode of communication sometimes cheats the

person out of the meaningful impact of face-to-face moments, and yet they acknowledged that they often still chose that route.

Theme: **Tacit preference for on-line social interactions.** A second qualitative theme emerging within the category of Interpersonal Communication Preferences was a Tacit Preference for On-line Social Interactions. When directly questioned about times that social media might be preferable to face-to-face interactions, participants gave a wide range of responses. A few participants said, "I wouldn't say it's ever preferable." More often, however, participants conceded that while Facebook was not preferable, they sometimes felt it was the only option available at some given time, saying, "I probably wouldn't prefer it over face-to-face interactions any time, but when there's not face-to-face connections or if I can't contact you face-to-face then it's in place of that." A couple participants openly stated that they generally preferred on-line social interactions over face-to-face interactions, however, it became apparent through further discussion that while most participants directly expressed preference for face-to-face, their actual use and perceptions of Facebook tacitly implied an underlying preference for on-line social interactions.

Perceived benefits of on-line social interactions. A subtheme emerging within the theme, Tacit Preference for On-line Social Interactions was Perceived Benefits of on-line social interactions. All of the participants identified several perceived benefits of on-line social interaction; the most common factor was the *utility* of social media. Participants described Facebook as an easy and convenient way to share information with both close and distant friends as well as individuals and groups.

Participants gave pragmatic answers about the utility of Facebook interactions. For instance, Facebook friends are always accessible, even when real life friends are not. One participant described the easy access afforded by social media interaction:

> You can do it anytime. You don't both have to be in the same place at the same time. When something comes into your head you can just post on somebody's wall or tweet to somebody or whatever. It doesn't matter if they're awake or they're busy. They'll see it whenever they have time.

Others focused on the convenience of on-line interactions, saying that on Facebook, one is not limited by schedules and time conflicts. One young woman reflected, "It's harder for face-to-face interactions a lot of times just because everybody is on different schedules." While time and distance impact the accessibility of face-to-face interactions, participants appreciated the fact that Facebook is not limited by those variables and saw Facebook as a way to stay connected because "even though you're in two different cities, you're both on Facebook at the same time." Statements such as this one revealed a blurring of the line between real and virtual worlds, indicating a perception of being able to share time and space on Facebook.

Additionally, participants revealed that Facebook is not limited to maintaining personal relationships with geographically distant friends; it is also an easy way to *learn about close-by friends*. For instance, one young man said, "I mean events and stuff like what are you doing this weekend. That's a lot easier to find from Facebook than to get that information from person-to-person 'cause everyone's schedules don't match up." Again, his response referred to the difficulties of face-to-face scheduling.

Other participants commented on how convenient Facebook was for making contact with or *conveying information to large numbers of people*, making it preferable to face-to-face interactions, which require significantly more effort. One participant explained the utility of on-line event planning, "Planning events is really good over social media 'cause you can put very specifically what's going on, where it is, what time, when, and stuff like that. It's very straight-forward." Another young woman agreed, stating that Facebook mass messages are "easy to send out to everybody and most of the time you know that everyone's going to see it 'cause I think a lot of people log on at least once a day." In some ways, it seemed as if Facebook allows users to avoid the inconveniences of face-to-face interactions – there is no need to schedule a mutually acceptable time, no need to come out in the cold to meet up, and no need to even say something more than once – it is one stop communication shopping. One participant elaborated on this benefit and discussed how it is more difficult to have the same interaction face-to-face, stating:

> You don't have to pick up the phone. You don't have to dial any… it just seems easier, less effort… you don't have to deal with the small talk and all that stuff. You can just kinda get to the point.

In addition, to citing the utility of individual Facebook social interactions, participants continued the other pragmatic factors, citing the *efficiency of Facebook groups* as a primary reason that social media is preferable over face-to-face communication. Some participants shared that they use Facebook groups to facilitate face-to-face meetings, "We'll make a Facebook group so that everybody gets the notifications of when we can meet," while others disclosed that they use Facebook groups

to avoid needing to meet in person. For example, one young woman talked about the practicality of utilizing a Facebook group for a recent class project:

> Sometimes it's just easier to have a document and then everyone can put their input into the document rather than actually be talking to each other because sometimes people are afraid to say a certain criticism of someone else's writing or someone else's work. They'd rather just type it up and then it's more efficient.

Interestingly, the previous participant alluded to her perception that an added benefit of on-line group work was the ability to *manage conflicts* that arise that she might not feel comfortable addressing face-to-face. Another participant echoed a similar observation:

> Let's say [something is] bothering me about…someone…I'm put in a group with. [It is] something that…I wouldn't necessarily feel comfortable saying to their face but I could over Facebook, to the entire group, not singling the person out and being like "we need to start doing this." So instead of saying, "You need to stop coming late to meetings," I can be like, "We have to be sure that we get to all the meetings on time." Talking to everybody makes it less intense and [doesn't] single a person out. [It] kind of relieves the stress on both ends so it's not as intense.

Many participants began by explaining their practical reasons for using Facebook and ended up sharing ways that they use Facebook to manage difficult interpersonal situations, such as conflict and emotionally laden topics. For instance, one interviewee felt that Facebook was preferable for managing her angry feelings. She stated, "sometimes you're too angry to face somebody [and] it's just better to write. That would just calm you down so you can express your feelings." Another young woman elaborated

by saying that she felt that people would be less likely to say something they would regret on-line, stating, "It's a good way for people to actually think about what they're saying and not just say it right off the top of their head." Another participant theorized that not having to see a person's face-to-face reaction makes it easier to deal with difficult topics on-line. Providing an example, she stated that it would be easier for her to turn down a guy on-line, explaining, "When he says "hey" on Facebook to just be like, "Hey, I don't really want to hang out anymore" [rather] than saying that to his face and having to deal with his reaction."

Perceived challenges of on-line social interaction. Perceived Challenges emerged as a second subtheme within the Tacit Preference for On-line Social Interaction theme. It was a well developed subtheme and therefore divided into several factors, including Time Spent, Compulsive Use, and Choosing On-line Interactions over Face-to-Face Interactions.

Time spent. Given that participants consistently reported a direct preference for face-to-face interpersonal interactions as well as their tacit implication of preference for on-line social interaction, the time participants spent using social media was a particularly revealing factor. Interviewees indicated a wide variance in the amount of time they invested in on-line interaction, ranging from only 20-30 minutes per day up to 17 hours per day. Of the total qualitative participants, low users, those who reported using social media for less than one hour per day, comprised less than 25% of the qualitative sample. Another 25% represented high users, those who reported using social media for three or more hours per day. The middle 50% represented average users who reported being on-line one to two hours per day. Although it was a very small sample, it

is interesting to note that during their individual interviews, participants revealed higher levels of social media use than they had indicated on their surveys. This could be due to the fact that the survey specified Facebook, while the interview was less restrictive, or it could be an indication that participants censored their answers, perhaps in an effort to provide more socially desirable responses.

The qualitative data regarding time spent on-line revealed not only the number of hours spent on social media but how pervasive social media was within participants' days. Some participants factually responded, without much self-reflection on how their use impacts their day, saying, for instance, "I'd say probably [an] hour or two. It's mostly get on [and] check something. If there's someone I want to talk to I probably stay on longer. But usually it's scroll through, laugh at some things, move on." Others minimized the amount of time they spent on-line, making comments such as:

> I'd definitely say two hours. I don't spend a lot of time just on the computer
> scrolling, but in between classes or if I'm just like walking somewhere I'll like
> open up Twitter and see what's new in the last couple minutes. Just casual.

The previous participant seemed to indicate she would find sitting at home behind her computer as problematic but "casually" viewing social media between classes was less likely to detract from anything important. Another participant also reported her use in a carefree manner, stating, "I'd say an hour just because between classes, if I'm waiting and I don't have anything to study….but that's pretty much it."

Other interviewees, however, indicated concern about the fact that social media absorb a large amount of time. When asked about the amount of time she spent on-line, one participant stated, "It's bad, between…three and five hours." Interestingly, her

awareness did not seem to be solely driven by her high social media use. Another participant who was on-line for two hours a day, meaning that she qualified as an average user stated, "It definitely absorbs a lot of my time, or anybody's time." Some participants, particularly low users, were aware of the amount of time that other people spend on-line and shared their own use in comparison to others. One young woman stated, "I check it in the morning, probably for about five or ten minutes just to see where my notifications are. I feel like I don't use it as much as a lot of people." While another commented on her roommates and the amount of time she observes them on-line, "It's just like [they] continue to scroll and scroll and scroll. My roommates get very distracted by that. They'll stay on it for hours."

Related to the factor, Time Spent, were groups of nodes pertaining to Frequency of Checking, Checking for Updates and Multiple Log-ons per Day. The data coded in these nodes provided further evidence of the pervasive nature of social media for young adult users. F*requency of Checking* related to how frequently participants reported checking their Facebook accounts. When directly queried, one participant reported, "I just pull out my phone and open up Facebook…unlimited times a day." Another interviewee agreed that she also checked Facebook constantly, saying, "It's all day, constantly, I'm always checking…I usually check it until I go to sleep so it's probably all day, here and there." Still another explained a specific checking pattern that requires her to rotate through various social media venues:

> I check my Facebook probably I'd say over a whole day maybe every other hour.
> Instagram, I'm on every other 15 minutes, even though it doesn't really change.
> And Twitter, I just got into that so I'm not on that as much but it's kinda like the

Facebook thing, maybe like every, like, couple hours I'm on that. So all together,

you know a couple hours a day.

Also under the Time Spent factor, a second group of nodes, *Checking for Updates*,

investigated participants' motivation behind their frequent checking. Many participants,

similar to the interviewee in the previous section, indicated awareness that they check

Facebook and other social media sites more frequently than needed. One young woman

revealed how often she sees others checking Facebook during her lectures and

commented, "In that hour and fifteen minutes, what could possible change?" In response

to her rhetorical question, others reported engaging in frequent checking out of fear that

they would miss out on something important. One participant, a frequent checker, had

the following to say about her own checking behavior, "I think it's just that idea that you

think that people are always looking at what you're posting or that something new

is...like something's going to happen. If you don't know about it then you're not in the

loop." Another young woman divulged a similar fear, saying she checked frequently

because she was afraid of "missing something [she] should know."

The final nodes under the Time Spent factor, were *Multiple Log-ons per Day*,

which captured the number of times participants accessed the Facebook website on a

daily basis. Most every participant reported logging on Facebook multiple times

throughout the day. The motivation to access Facebook varied from habit and boredom

to having something to occupy free time. Many participants stated they habitually

accessed Facebook between classes and before and after meals. Others reported that

every time they get on their computer, the very first thing they open is Facebook or

Twitter, even when they are getting on-line to research or study. One young man stated,

"As soon as you open up the computer, first thing you type in is Facebook, and then the next thing you go to is Blackboard or something for homework or something like that." Others indicated that Facebook was a way to occupy time and avoid boredom, such as this participant who scrolled through Facebook during her meals, "I'll use Facebook while I'm eating [because] I'm bored and I don't have anything else to do. I'm always reading or Facebooking when I'm eating. I constantly have to be doing something or I'm bored." It was common for participants to agree with the previous interviewee's statement, reporting that they also used Facebook simply because there was nothing else for them to do. For example, others commented, "I just kind of pull it up 'cause I have nothing else to do," or "whenever I don't have anything else to do, I go on Facebook."

In conclusion, participants shared awareness that even average users spend a large portion of every day using social media. In addition to the actual hours spent, participants shared that they engage in frequent checking, fearing that they will miss something important and therefore feel compelled to constantly check for updates, and access the Facebook website multiple times every day. Interestingly, the data explored in this category does not support the pragmatic use of Facebook that participants discussed initially, instead it begins to point to use that appears out of control, which leads to the next factor under the subtheme of Perceived Challenges of on-line social interaction, which was Compulsive Use.

Compulsive use. Compulsive Use was a second factor emerging within the Perceived Challenges of on-line social interactions data. Rather than assume that a constant tether to technology negatively impacts social media users, participants were directly asked to reflect on how Facebook, and other forms of social media impacted their

lives. Participants, almost without fail, described their use of social media as *distracting*, at the very least, and at the far end of the continuum, addictive. The qualitative nodes, Distracting and Addictive, fall under the Compulsive Use factor, which provided qualitative data that paralleled the research on problematic use of the Internet in the literature review. It was common for study participants to make statements such as, "[Facebook] is very distracting. I log onto the computer to pull up Blackboard or to do homework and I find myself on Facebook and Twitter. It's definitely distracting."

Participants commonly reported that social media distracted them from their academic focus, either as a way to purposefully procrastinate, accidentally getting drawn into it, or toggling back and forth between Facebook and schoolwork. One participant shared how he used Facebook to put off doing his schoolwork, "It definitely can be distracting because sometimes if it's like I really don't want to write this paper, I'll go on Facebook. It's something to do so you don't have to do what you don't want to." Several interviewees discussed their unintended tendency to get drawn-in on Facebook. One young man commented:

I know that I have failed to do a lot of homework when I should have because I got on Facebook or I was on-line and I was like, just let me check it real quick, then I'll get off and do homework and you end up being on there for hours at a time and not know it.

Other participants shared that they frequently toggle back and forth between schoolwork and social media. One young woman stated:

I find that whenever I go on the Internet to research something for a paper, I'll have a whole bunch of different windows open and the first one's going to be

Facebook, the second one's going to be Twitter, and then it's going to be the rest

of what I need to do and then a word document, if I'm writing a paper.

Another agreed with the previous statement and shared how even when wanting to

concentrate on schoolwork, checking for updates is a distracting temptation, a temptation

that she witnesses herself and others succumbing to. She articulated, "Pretty much

everybody I know who has Facebook, they'll have their homework page open and then

the Facebook page right next to it. It's really distracting to keep pressing the update

button and see the new things streaming in." A last example comes from a participant

who shared that she witnesses others unable to stay off Facebook, even during classroom

lectures. She reported, "I even see it in my lectures sometimes. The people I'm sitting

next to, they're just on their Facebook not paying attention to the lecture…I just think

some people…go on Facebook and it just consumes all their time."

Just as Caplan (2005) reported that use of the Internet, in and of itself was not a

predictor of problematic Internet use, only being distracted by Facebook is not a

sufficient indicator of compulsive use. However, many participants' indicated that

Facebook distracted them from their academic studies, which they perceived as a

negative consequence to time spent on-line, one indicator of problematic use.

Additionally, the sense of being out of control of their Facebook use as indicated by

either not intending to use and being compelled to do it anyway, or needing to work to

limit or manage one's use, would be additional indicators of compulsive and therefore

problematic use. Interestingly, participants identified both of these indicators in their use

of social media.

Examples of *not intending to use* Facebook include one participant who elaborated on how even when she does not intend to spend time on Facebook she accidently gets drawn in. "I do find that when I go on to look at [a] specific thing, I end up kind of like getting hooked and staying on for an hour or so." Another young woman vividly described Facebook as a vacuum that sucks her in and distracts her from her real life interactions. She explained that she could be having a face-to-face interaction and if, "[I] was on Facebook, [I'd be] so focused on reading the statuses and clicking on pictures to see them larger, [that] even if we were trying to have a conversation, I wouldn't be hearing it." Interestingly, as these participants described their use of Facebook, they seem to describe an external locus of control, as if something outside of themselves compels them to get on-line. In fact, one participant said that her notifications, "make her check," Facebook.

Another factor in differentiating between normal and compulsive use is an *attempt to manage or limit use*. In an effort to limit their use of social media, some participants indicated that they have to stay completely off Facebook while others shared the strategies they employ to use it less. One interviewee stated that he tries, "to avoid it as much as possible because I feel like once you log on then you're hooked. But if you just avoid it fully you're good to go." Others attempted to limit use by deleting their Facebook account when they need to be able to focus on schoolwork. One participant explained, "During midterms and finals week I have to delete my Facebook just because I know that I'm going to get distracted." Another participant shared that she disconnects from the Internet when she needs to study in order to manage her use of Facebook. She explained, "I'm in a dorm in the Village and it's not wireless so when I really want to

focus I unplug my cord and go out in the common room so that I can't go on the Internet at all."

Especially fascinating, one participant described using a computer application called "self control" to manage her time on-line, explaining:

There's this app that you can get on your computer called 'self-control' and you put it on websites that you don't want your computer to let you onto and you can put in Facebook or whatever and say I don't want to be allowed on this until 10 p.m. and it won't let your computer go there.

Still others admit that they have been unsuccessful at controlling their own use and have asked their parents or roommates to change their passwords to eliminate their access to their social media accounts.

The previous qualitative data indicate attributes of compulsive use, negative consequences, feeling compelled to use, and attempts to manage use, which support participants' use of the term *addictive* in relation to their social media use. It was, therefore, not surprising to hear statements such as, "I don't know what it is about it, but I feel like it's an addiction. I'm always tracking it." Another young man described his struggle with Facebook, stating:

I would say that Facebook is definitely addictive. I've been guilty of this. I've been trying to get better. As soon as you open up the computer, first thing you type in is Facebook, and then the next thing you go to is Blackboard or something for homework or something like that. But it's just addicting.

He went on to reflect on his use of Facebook, stating, "I don't know what it is about [Facebook]…[I think to myself] this is so boring…but I'll still constantly see myself

doing it and I don't know why. It's just a way, I guess, to feel connected..." Another

participant had the following observation about other's use of Facebook, "I see people on

Facebook all the time. I see people Facebooking in class. One of my good friends

recently wrecked his car because he was Facebooking and driving." Many participants

stated that they have tried to use Facebook less but found that "it's harder than it seems,"

a typical response from anyone struggling to overcome an addiction.

Under the factor Compulsive Use, participants shared that at best, Facebook is

distracting to even normal users. At worst, Facebook is addictive. In addition, many

describe attributes that are associated with addiction, including feeling compelled to use,

attempts to manage use, and experiencing negative consequences. Interestingly, time

spent was not a sufficient predictor of problematic social media use for participants in the

current study. Some participants who fell in the normal range of time spent still struggled

with factors of compulsive use.

Choosing Facebook over face-to-face social interactions. The final factor to

emerge within the subtheme, Perceived Challenges of on-line social interactions was

Choosing Facebook over Face-to-Face Social Interactions. Participants varied in

perception of how their time spent on-line impacted the time they spent in face-to-face

social interactions. Some believed that the time they spent on-line detracted from the

time they spent face-to-face, while others felt that it had no effect. Interestingly, the

perception was not logically mitigated by the participant's use of social media. In other

words, participants who were high users of social media reported both, that it did and did

not, impact their time spent in face-to-face interactions, as did low users of social media.

There were a couple participants who stated they made a conscious choice and took

deliberate action to not allow social media activities to consume their daily lives. One such participant commented, "I have made it a personal rule to try my best to steer as clear of my phone and Facebook while in the company of others. In general, [I] try to make face-to-face interactions come first."

However, a more frequently occurring response was to hear how respondents found themselves choosing Facebook interactions over face-to-face interactions despite their direct statement of preference for face-to-face interpersonal communication. Early on in the project investigation, a participant brought up the ironic observation that Facebook actually detracted from face-to-face connections despite its stated intention of creating connections. He found it difficult to make new friends at college because people were unavailable for interacting due to Facebook or texting. He remarked:

> I'll see people sit down with maybe people you don't know or even maybe that you just met, and people will all be on Facebook, on their phone…they'll pull it out immediately if they don't feel comfortable in a situation or they don't know people, and they'll get on Facebook and it keeps them from actually meeting someone new face-to-face.

Another participant agreed and made the following statement:

> I think that the more time you spend on Facebook the less time you're going to spend interacting with other people because you don't need to. You don't need to say, "Hey, what's up man? How's your life?" when they're posting every ten minutes on their Facebook or Twitter on what they're doing. What's the point in calling them if you already have a minute-by-minute update on their life?

When asked about these observations, many participants offered examples of when they could be meeting new people or interacting with real life friends and they have chosen to engage in social media instead. A common time to choose social media over face-to-face interaction was "probably before classes" or while riding the bus. Additionally, one participant revealed that she used social media when she was home with her family, stating, "if my family was in the family room watching TV or something, I could be talking to them. I have a little brother and I'd be playing with him, but I guess sometimes I'm on Facebook during that, too."

One female participant confessed that she gets on Facebook at work so that she does not feel obligated to interact with her co-workers in the break room. She said,

I would say like 95% of the time when I'm at work and I go on my break, we have a break room where you know usually other employees are on break, and with the exception of two people I will always sit there on Facebook rather than talk to people sitting around me 'cause it's just awkward.

Interestingly, her mention of using Facebook to avoid feeling socially awkward was a saturated node in the qualitative data and is discussed in depth later in this chapter, under the category, Specialized Use of Social Media. Finally, one participant shared that she frequently avoids her real life roommates by immediately getting on Facebook, "I'll find as soon as I come home from class, I will just go right to into my room and go right on Facebook. My roommates will be upstairs socializing…all together eating dinner." She, like many others, reflected on feeling that she *should* go interact with her roommates but confessed that those relationships were much more challenging, while her Facebook interactions were much more comfortable.

The previous interviewee seemed to feel self-conscious about her use of Facebook and this was mirrored in other participants' hesitation when asked to self-reflect on how their use of social media might impact time spent face-to-face. When directly asked if she thought her social media use had any impact on her interpersonal interactions, one young woman stated, "I want to say 'no,' but I know the answer is probably 'yes.' Like I said, if I didn't have Facebook I'd be forced to go talk to people and make friends…so yes." Other participants offered similar disclosures about how they thought their social media use might be impacting their interpersonal relationships. One participant observed, "It's distracting from having a real conversation with someone or really connecting with them 'cause you're too busy trying to connect with them on a media level or trying to just see other things." When discussing the fact that one young woman spent a significant amount of her time socializing on-line, she divulged, "It's hard to balance that and I find myself just not really interacting with a lot of people." Another participant realized that she has spent so much time interacting on-line that it had blurred her awareness of what is real. When asked about perceived congruence between her Facebook friends' on-line and off-line presentations, she revealed, "I don't have that many close relationships with people in the real world. I just really like following them on Twitter or am friends with them on Facebook, so I don't really know the difference at that point."

In addition to their self-reflections, participants were quick to offer their *observations of others' use of social media* and their perceptions of how it interfered with their ability to be present in the moment. One interviewee offered the following observation of her best friend on a recent trip abroad, saying, "she felt this need to constantly check in with Facebook to see what's going on. She was like, I hate being so

disconnected." The interviewee reflected that her best friend's constant checking of Facebook caused her to miss out on meaningful real world experience.

Another shared her confusion and hurt when she would go visit her long-distance boyfriend and observe how much time he was spending on Facebook even in her presence. She said:

> Even when I'm with my boyfriend…when I visit him on weekends he'll be
>
> checking Facebook on his computer and I'm like, why? I'm here, you don't have
>
> to. I guess it's just habit 'cause we both do the same thing but he'll be on
>
> Facebook and Twitter and stuff and I'm [thinking], we could talk. I'm right here.

In her explanation, it is possible to hear her confusion over why her boyfriend would choose to spend his time on Facebook when he has the opportunity to share real time and space with her. It makes logical sense to her that he would use Facebook to stay in touch with her when they are geographically separated, but she is confused when he continues to be on-line and she is fully accessible to him.

It seems reasonable that social media users would sometimes use social media to fulfill interpersonal needs when face-to-face interactions are not available, but many interviewees gave examples of times that they used Facebook not as a substitute for face-to-face interactions but to actually *avoid face-to-face interactions*. They revealed that they often used Facebook, particularly on their phones, to appear occupied and send a message to others that they were unavailable for conversation. Many participants made statements such as, "I would just look down at my phone, scroll through so it looks like I'm doing something." The desire to avoid interactions was echoed in other participants'

statements, "you would just look down at your phone and pretend that you don't see anyone." Another participant elaborated:

> When you're waiting to go into a class and you don't really want to be confronted by anyone, you just kind of take out your phone, look at Facebook. It kind of makes you seem like you're doing something when you're not really doing anything.

> While many participants stated that they wanted to send "a closed off message" because they "don't want to be bothered," one particular participant revealed that she used Facebook to avoid her own feelings of social awkwardness. Quite candidly, she stated:

> I want to look really busy over there so no one tries to talk to me, 'cause it's more of an effort for me to try to talk to someone than it is enjoyable. To me I never know what to say, it just always makes me feel weird so I'd rather just sit there and look at what other people are doing, I guess.

In her answer, the participant also revealed that it is more comfortable for her to passively observe others on Facebook than to actively engage in her own face-to-face communication.

In conclusion, the data indicate that participants have a complicated relationship with Facebook and other forms of social media. Participants directly stated that they prefer face-to-face interactions for interpersonal communication and yet revealed that they spend extraordinary amounts of time using some form of computer-mediated communication. They seem to wish that they could be avid users of social media without experiencing any negative outcomes, but gave compelling evidence of problematic use as

indicated by their statements regarding compulsive use, negative consequences, and attempts to manage excessive use. Finally, participants began to scratch the surface of how they believed their social media use impacts their interpersonal relationships, reluctantly admitting that they often choose to use social media even when they have the opportunity to interact with others face-to-face.

Research Question Two

Every generation seems to believe the upcoming generation to be troubled in some way, hence the commonly heard phrase, "kids these days". Consider this quote, "The children now love luxury; they have bad manners, contempt for authority; they show disrespect for elders and love chatter in place of exercise" (Platt, 1989). Surprisingly, this is not a statement on modern day youth, instead it is a quote attributed to Socrates (469-399 BC), an indication that one generation's worries about the next are seemingly as old as time. However, with the passage of time it has become apparent that while no generation is without troubles, one seems to be no better or worse than the one before or after, only different. Therefore, it seems logical to view computer-mediated communication as simply the newest method for interpersonal connection in a long list of technological advancements from telegraph to telephone to Skype. However, according to this study's theoretical anchor, human connection is fundamentally important; therefore, any technology that potentially impacts our ability to meaningfully connect with others, such as computer-mediated communication, is important to fully understand. It is important to examine, not assume, what impact, if any, computer-mediated communication is having and will have on the quality and experience of intimacy within the confines of a meaningful relationship. Emerging from this line of thought is the

second research question, "Is there a difference in the *quality* of relationships in young adults' experience of on-line versus face-to-face interactions?"

Research Question Two: Quantitative Results

Both descriptive and inferential statistics were used to address the second research question. This section begins with descriptive statistics for the following variables: Use of Facebook, Time Alone, Preference for On-line Social Interaction, Attachment Style – Close, Depend or Anxiety, and UCLA Loneliness. Prior to the analysis, participants were removed from the data list-wise resulting in a consistent *n* of 187 participants.

Use of Facebook. The Use of Facebook variable was a composite variable indicating the amount of Facebook use. It combined data from three individual survey variables, Hours of Facebook Use, number of Facebook Log-Ons, and number of on-line Facebook Friends. Using statistical quartiles, each of the individual variables was divided into categories of low, medium, and high, and each category was assigned nominal values of 1, 2, or 3 respectively. Averaging the three individual value scores resulted in the Use of Facebook variable. There were data points in every possible category of Use of Facebook, range equaled 2. The mean, 2.00, median, 2, and mode, 2, with a standard deviation of .31157 indicate a leptokurtic distribution with the data tightly distributed around the mean. Based on the results, the average survey participant indicated that he or she was on Facebook for less than one hour per day (M = 1.42, SD = .637), accessed Facebook 2-3 times per day (M = 7.44, SD = 1.336), and had 744 Facebook friends (M = 744.07, SD = 377.104).

Time alone. The Time Alone variable was a composite variable indicating the amount of time a participant spent alone. It combined data from three individual survey

variables, Solitary Activities (M = 2.90, SD = .987), Facebook Friends Never Met

(M=18.15, SD = 20.136), and Confidants (M = 2.95, SD = .750). Using statistical

quartiles, each of the individual variables was divided into categories of low, medium and

high, and each category was assigned nominal values of 1, 2, or 3 respectively.

Averaging the three individual value scores resulted in the Time Alone variable. There

were data points in every possible category of Time Alone, range equaled 2. The mean,

1.96, median, 2, and mode, 1.67 and 2.00, with a standard deviation of .40427 indicated a

leptokurtic, bi-modal distribution with the data tightly distributed around the mean.

Based on the results, the average survey participant indicated he or she engaged in 9 to 15

solitary activities over the previous two week time period, had never met 18% of their

Facebook friends, and had three to four confidants.

   Preference for on-line social interaction. The Preference for On-line Social

Interaction variable was calculated from the Preference for On-line Social Interaction

subscale of Caplan's (2010) Generalized Problematic Internet Use Scale, 2 (GPIUS2).

Participants were asked three questions:

1. I prefer on-line social interaction over face-to-face communication.

2. On-line social interaction is more comfortable for me than face-to-face
   interaction.

3. I prefer communicating with people on-line rather than face-to-face.

Participants were instructed to rate the extent to which they agreed with each of the

statements on a scale that ranged from (1) definitely disagree to (8) definitely agree.

Possible scores ranged from 3-24 and the range equaled 19 because no data were

collected for the two uppermost scores. The resulting distribution was positively skewed,

as indicated by the mean, 7.82, median, 7, and mode, 3. The standard deviation equaled 3.995. For interpretation, higher scores indicated more Preference for On-line Social Interaction, however there is no cut-off score. Since 7.82 was below the mid-point of possible scores, 13.5, it appears that study participants demonstrated a low Preference for On-line Social Interaction.

Attachment style – close. The Close variable was calculated from the Close subscale of Collin's (1996) Revised Adult Attachment Scale – Close Relationships Version. The Close variable measures the extent to which a person is comfortable with closeness and intimacy. Participants were asked six questions such as, "I find it relatively easy to get close to people," and "I don't worry about people getting too close to me." Participants were instructed to rate the extent to which each statement described them from (1) not at all characteristic of me to (5) very characteristic of me. Possible scores ranged from 1-5, with actual minimum, 1.33 and maximum, 5.00, range equaled 3.67. The resulting distribution was normally distributed, as indicated by measures of central tendency – mean, 3.76, median, 3.83, and mode, 3.83. The data was tightly distributed around the mean with a standard deviation of .64321. For interpretative purposes, higher scores indicated higher comfort with closeness and intimacy, which are compared with other subscales.

Attachment style – depend. The Depend variable was based on the Depend subscale of Collin's (1996) Revised Adult Attachment Scale – Close Relationships Version. The Depend variable measures the extent to which a person feels able to depend on others to be available when needed. Participants were asked six questions such as, "I am comfortable depending on others," and "I know that people will be there when I need

them." Participants were instructed to rate the extent to which each statement was descriptive of them from (1) not at all characteristic of me to (5) very characteristic of me. Possible scores ranged from 1-5, with actual minimum, 1.33 and maximum, 4.33, range equaled 3.00. The resulting distribution was normally distributed, as indicated by the mean, 3.10, median, 3.17, and mode, 3.00. The data was tightly distributed around the mean with a standard deviation of .55626. For interpretative purposes, higher scores indicated higher comfort with dependence on others, which are compared with other subscales.

Attachment style – anxiety. The Anxiety variable was calculated from the Anxiety subscale of Collin's (1996) Revised Adult Attachment Scale – Close Relationships Version. The Anxiety variable measures the extent to which a person is worried about being rejected or unloved. Participants were asked six questions such as, "I often worry that romantic partners don't really love me," and "I find that others are reluctant to get as close as I would like." Participants were instructed to rate the extent to which each statement was characteristic of them from (1) not at all characteristic of me to (5) very characteristic of me. Possible scores ranged from 1-5, with actual minimum, 1.00 and maximum, 5.00, range equaled 4.00. The resulting distribution had a slight positive skew, as indicated by the mean, 2.58, median, 2.50, and mode, 2.00. The data was more widely distributed around the mean with a standard deviation of .86008. For interpretative purposes, higher scores indicated less comfort with closeness and intimacy, which are compared with other subscales. In conclusion, participants scored highest on the Close subscale (M = 3.76, SD = .64321), then the Depend subscale (M = 3.10, SD

= .55626), and lowest on the Anxiety subscale (M = 2.58, SD = .86008), an indication

that this participant sample appears to be securely attached.

UCLA loneliness. The UCLA Loneliness variable was calculated from the

Revised UCLA Loneliness Scale (Russell et al., 1980). The UCLA Loneliness variable

measures subjective feelings of general loneliness. The scale consists of ten items

reflecting satisfaction with social relationships, such as "I feel in tune with people around

me" and "I can find companionship when I want it." Additionally, the scale has ten items

reflecting dissatisfaction with social relationships, such as "I lack companionship" and

"My social relationships are superficial." Participants were asked to indicate how often

the given statements describe how they feel on a four-point scale ranging from (1) never

to (4) often. Possible scores ranged from 20-80, actual range equaled 38.00; no data was

collected for scores totaling over 58. The resulting distribution had a slight positive skew,

as indicated by measures of central tendency, mean, 32.99, median, 31, and mode, 34.

The data was widely distributed around the mean with a standard deviation of 8.405. For

interpretative purposes, the higher numerical value indicated greater loneliness, however,

there is no cut-off score. Given that the mean, 32.99, was below the scale's midpoint, 50,

it appears that this participant sample demonstrated low subjective experience of

loneliness.

Inferential statistics. A series of bivariate correlations was conducted between

the aforementioned variables: Use of Facebook, Time Alone, Preference for On-line

Social Interaction, Attachment Style – Close, Depend or Anxiety, and UCLA Loneliness.

Pearson's correlation coefficients were calculated between the variables to identify

statistically significant relationships. There were no significant correlations between Use

of Facebook, Time Alone, and Preference for On-line Social Interaction with any of the three styles of attachment – Close, Depend, or Anxiety. Based on the results, attachment style does not mediate Use of Facebook, Time Alone, or Preference for On-line Social Interactions.

However, as seen in Table 4.4, UCLA Loneliness was significantly correlated with Use of Facebook, Time Alone, and Preference for On-line Social Interaction. The UCLA Loneliness variable was negatively correlated with Use of Facebook, $r = -.155$, $p < .05$, indicating that as one variable increased the other decreased. UCLA Loneliness was positively correlated with Time Alone, $r = .346$, and Preference for On-line Social Interaction, $r = .279$ (both ps < .01). Both were positively correlated, indicating that as one increased so did the other.

Table 4.4

Intercorrelational Matrix

	UCLA Loneliness	Use of Facebook	Time Alone	POSI
UCLA Loneliness				
Use of Facebook	-.155*			
Time Alone	.346**	-.027		
GPIUS2-POSI	.279**	.175*	.235**	

Note. In all cases, N = 187
* Correlation is significant at the .05 level (2-tailed).
** Correlation is significant at the .01 level (2-tailed).

Although UCLA Loneliness had multiple statistically significant correlations, it is important to consider the level of practical significance. The coefficient of determination, R^2, indicates the power of those correlations and demonstrated that UCLA Loneliness accounted for 2.4% of the variability in the Use of Facebook, 12.0% of Time Alone, and

7.8% of Preference for On-line Social Interaction, ultimately accounting for 22.2% of the total variability.

Based on the results, the negative correlation between UCLA Loneliness and Use of Facebook could indicate that participants' use of Facebook resulted in a decrease in subjective feelings of loneliness. However, this is a non-causal relationship the direction of the results remains unknown. Additionally, the results indicated a positive correlation between UCLA Loneliness and Time Alone, which supports the validity of the Time Alone variable and indicates a relationship between actual time alone and the subjective experience of loneliness. Finally, as UCLA Loneliness increased so did Preference for On-line Social Interaction, which would support some of the earlier research (Caplan, 2002; Caplan, 2003; Stepanikova et al., 2010), which found that loneliness was a factor in predicting problematic Internet use.

Research Question Two: Qualitative Results

While the quantitative results indicated that there were statistically significant correlations between loneliness, which could be viewed as a deficiency in the quality of interpersonal relationships, and multiple variables of use and preference. However, qualitative variables relating to the quality of attachment were found to be unrelated to variables of use and preference. Therefore, the qualitative data related to the qualities of meaningful, interpersonal relationships was especially valuable and revealing. Within research question two, participants were queried about the qualities of strong intimate relationships and perceived differences between on-line and face-to-face interactions. Research question two focused on the second qualitative category, Qualities of Intimacy. Within this theme, participants articulated six subthemes, including Long History, Shared

Experiences, Privacy and Intimate Disclosures, Comfort, Vulnerability, and Familiarity. Additionally, in the process of defining qualities of intimacy, participants discussed the context for intimate experiences, either face-to-face or on-line. The following figure, 4.2, illustrates the qualitative theme and subthemes explored under research question two, "Is there a difference in the *quality* of relationships in young adults' experience of on-line versus face-to-face interactions?"

Figure 4.3

Qualities of Intimacy

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│  Long  │ │ Shared │ │Privacy&│ │Comfort │ │Vulnera-│ │Famili- │
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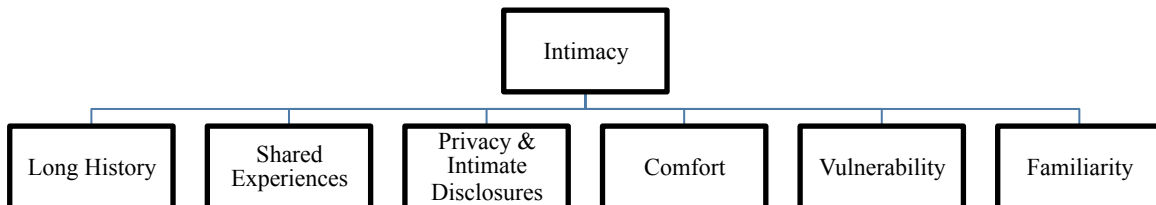
Theme: Qualities of Intimacy. The second qualitative theme emerging from the data was Qualities of Intimacy. Participants were queried about what qualities define a close, intimate relationship. They found qualities of intimacy to be deeply personal and difficult to articulate. However, six subthemes emerged with the data: Long History, Shared Experiences, Privacy and Intimate Disclosures, Comfort, Vulnerability, and Familiarity.

Long history. The subtheme most frequently mentioned within the theme, Qualities of Intimacy, was relationships with a Long History. Long history was understood as a shared time investment the development of intimate knowledge of another person. Participants commonly defined their most valued connections by the length of their relationships, saying, "I say best friend because I've known her for over 10

years," or "one of them I've known since she was born and the other one I've known since kindergarten." Participants equated sharing a long history with feeling truly known by another as evidenced by the following statement:

> If I have a problem or I want to talk about something, I'm obviously going to go to the people who know me to my core rather than the people that just know the surface me right now…So if I want to talk to someone who I know to their core and they know me fully, I'll talk to my friends at home.

The theme of sharing a long relationship history was intertwined with feeling that *high school friendships* were stronger, primarily due to the time investment, which explained why participants would spend time on Facebook maintaining high school relationships. For instance, one participant stated, "I definitely feel like you're closer to your friends at home just because most of my friends have been my friends for years and years so they know me the best." When reflecting on how their long history with high school friends impacted their more recent collegiate relationships, participants acknowledged that it would take time for intimacy to develop, making statements such as, "It takes a while to get to know people." A freshman compared her long-time high school friends and her more recent college friends, and concluded, "In a way I feel like I'm missing out and haven't developed as close of relationships with the people here. You can't develop as strong a relationship as you've had with people for years in just a couple months."

Shared experiences. Shared Experiences emerged as a second subtheme within the theme, Qualities of Intimacy. Shared experiences allowed for the creation of meaningful memories which participants enjoyed being able to reminisce about with

friends. While participants all agreed that intimacy requires time to develop, they also felt that shared experiences were an integral part of the bonding experience. When describing their closest relationships, many participants made comments such as "we've experienced so much together," or "we've gone through everything together." One young man argued that the key to developing a true friendship was the need to share an experience. He explained:

> I feel developing a friendship is just like time spent together kind of thing. I feel some of my best friends are just people I hung out with a lot. I got to know them real well. I could just look at them and be like, yeah, without saying. I feel if I meet someone once or twice, see them every once in a while, we're not really friends. We know each other and sometimes I may even forget your name, but the more I interact with people I feel like the better friends we are.

> Another participant agreed that the only way to truly get to know another person is to spend face-to-face time together. He elaborated:

> I feel like you need to have like an experience with somebody in order to be friends with them and I don't see how you can have an experience on Facebook. [For instance], I'm walking from here to a different neighborhood with somebody and we talk on the way there, I can get a good feel of them…So I think it's all about having an experience with somebody that you just can't do on-line.

One female participant told a tender story about falling in love with her boyfriend through a shared love of running, she said, "Even how we fell in love with each other was with running. We both have a passion for running together and we used to go on these long, ten- mile runs and everything was okay with the world." The common factor in all

of these participants' stories was the need to share an experience, cementing their developing relationship.

   Privacy and intimate disclosures. While Long History and Shared Experiences were the primary subthemes identified for creating intimacy in a relationship, participants articulated several other important subthemes, including Privacy and Intimate Disclosures. Privacy was seen as secret or hidden parts of a relationship that are revealed only within a trusted relationship, while Intimate Disclosures include the revelations of those secrets to a select person. One young woman, who was not a Facebook user, used her relationship with her boyfriend as an example of the need for privacy in an intimate relationship. She explained:

> I was thinking about my boyfriend and if I was Facebook friends with my boyfriend. I guess there [are] things that we could talk about, daily even, but there's also like our private time that we have. Not like weird stuff, just conversations, just the two of us that nobody else needs to know about. That's what makes us special.

> Her response captured the idea that having a relationship, in which there are aspects that are completely private and shared only between the two individuals makes the relationship uniquely special. She also touched on the idea that there is a difference in the substance of private moments shared on-line and those shared in person. She elaborated on this difference, saying, "Even if it was private message, it's not the same as sitting on the futon watching TV and drinking beer and talking about what we did today. It's not the same as talking about it on Facebook." As she described it, one gets the sense that when people talk in person, they are fully invested in the sharing process which in

and of itself creates an experience, while on-line there is a disconnection that allows a person to just talk *about* the experience, while only passively or partially engaged. Others resonated with the previous participant's statement that private disclosures create feelings of intimacy within a relationship. One participant simply stated that in an intimate relationship, "you tell each other things that you just don't tell anybody else."

  Comfort. Another subtheme emerging within Qualities of Intimacy, as defined by participants, was Comfort with another. They described comfort as feeling at ease with another person and content in their presence. Participants shared that intimate relationships are partially defined by "what you're comfortable saying to people," or "who I'm comfortable with." When looking to define factors of comfort with another, participants cited *comfort with silence* as well as uncensored conversation. Many participants shared that in their most comfortable intimate relationships, they are able to "sit there and not talk." One participant elaborated, "It's not weird. You can just sit there and be okay with sitting there…and you don't have to create conversation just for conversation." While another participant added that comfortable intimacy is experienced at "the point where you can be around someone and not have to say anything just be comfortable, just want to be with that person."

  Other participants associated comfort with another as the freedom to truly be themselves without feeling as though they need to *censor* their thoughts and feelings. They felt that the comfort to "just say anything" was a key factor to creating intimacy within a relationship. Another participant explained:

> My [close] friends have known me for seven or eight years since school and my
> university friends are my friends for only one or two years. They know me but

not really, and I cannot express my thoughts and feelings around them. I mean, if

I'm angry I have to control myself with my university friends.

Others agreed, stating that within their most intimate relationships they could, "pretty

much talk about literally anything, whatever we wanted."

    Vulnerability. As difficult as it was to define Qualities of Intimacy, participants

identified two additional subthemes, Vulnerability and Familiarity.   Vulnerability was

sense as openness within an intimate relationship and it seemed to increase the

interpersonal stakes. Participants felt that the process of being vulnerable within the

presence of another was a key aspect of building feelings of intimacy within a

relationship. Participants felt that intimacy requires a person "to be vulnerable to

[another] person…open yourself." Another participant elaborated, "If you're looking

someone in the eye and talking to them and you're opening yourself and making yourself

vulnerable to what they're gonna say and to your emotions, then I think that's what

constitutes intimacy in a relationship." Another agreed with the previous comment,

particularly the emphasis on the importance of demonstrating vulnerability face-to-face.

She concluded that when a person is "willing to tell someone to their face something

really deep about you, then that's when the relationship gets more intimate."

    Familiarity. A final subtheme, Familiarity, emerged out of the data within the

theme, Qualities of Intimacy. Familiarity indicates experience and knowledge of another

person; knowing someone "like the back of your hand." Participants indicated that an

earmark of an intimate relationship was when one was intimately familiar with another.

Additionally, participants felt that once intimacy has been established, it is easy to pick

up those relationships right where left off. Saying for example, "You don't have to talk

every day. You can go back and it still feels the same," while another dubbed familiar relationships as "riding-a-bike relationship[s]," indicating that one does not forget how to do it.

Context of intimacy. Obviously, this participant sample understands the poignancy of intimate relationships – the familiarity of being known, the comfort of true acceptance, and value of shared experience. When asked if social media, or more specifically Facebook, could be used in the creation of intimacy, participants were less in agreement with one another. One participant said, "I think [on-line interactions are] real, just different…people can form connections…So it's just different."

A few participants felt that there was no difference between the experience of intimacy face-to-face and on-line. Others felt that it depended on the topic that was discussed on-line, as indicated in the following statement, "if it's actually a conversation with meaningful statements back and forth then I don't see the difference than saying that in real life." Another young woman felt that on-line disclosures were even more meaningful, saying that others are more able to give their honest opinion on-line when they might hold back in person. She commented, "I think it's very much the same kind of thing and sometimes even more real 'cause people will give their honest opinion, whereas in person they wouldn't even say anything."

Other participants held the opposite opinion, indicating that interpersonal interactions needed to be face-to-face to develop intimacy. One interviewee stated:

> It goes back to like you're going to have more fun and it's going to be a lot more
> real, you're going to create those memories which are real face-to-face. You're
> not going to create real memories on Facebook and stuff like that. And also it

allows people to say things they wouldn't normally say and so I wouldn't really

say that's real. What you say face-to-face, that's more real.

The previous interviewee alluded to the inability to share experiences on-line, which

were previously identified as important components in the creation of intimacy.

Many participants felt that on-line interactions were limited to only recalling

previous experiences rather than creating new experiences. For example, one participant

said, "For me it's boring to have a conversation on the Internet…on-line conversation is

more like saying what you have experienced for the last three days or so." Another

explained, "I feel like in-person interactions definitely have a wider spectrum of things

that you can do…you can talk, go to parties, you can eat together. You can't eat together

on-line. It doesn't work."

A last participant elaborated on the same limitation of on-line interactions, stating:

You can't go and buy something, eat together, or remember anything. It's just

something you want to tell that person about and you just tell him and that's it.

And the rest of the conversation is really boring. Some conversations are like, hi,

how are you. I'm fine. How are you? I'm fine. End of conversation, that's

it…there is nothing to talk about.

When asked to elaborate on why shared experiences matter, participants stated

that it is only in the times that we share physical space and real time with others that we

feel truly connected. Participants indicated that on-line interactions were similar to

viewing a fire through a glass wall; through the glass, the fire can be seen and its

existence verified, and yet it cannot be felt. One female participant described the

difference between having a face-to-face interaction and sending an on-line message,

"it's not like he can feel it. You know what I mean? He can read it but he can't *feel* it."

Another interviewee summed it up with this statement, "Even if you spent 24/7 behind a

computer with that person, they're still not there."

Young adult users of computer-mediated communication agreed on the

experience of intimacy within the confines of a meaningful relationship, defining the

qualities of intimacy as long history and shared experiences, as well as privacy and

intimate disclosures, comfort, vulnerability and familiarity. However, as presented in

both the quantitative and the qualitative data, the impact of social media on their

experience of intimacy varies. On one hand, social media allows users to stay connected

to friends with whom intimacy was previously established and there is already a long

history of shared experiences. On the other hand, the ability to share new experiences,

express face-to-face vulnerability and develop interpersonal familiarity seems to be

limited in on-line interactions, which may impact the development of intimacy within

new relationships.

Research Question Three – Part One

The two previous research questions laid the groundwork for investigating the

third and final research question, "What is the impact of increased engagement with

others through computer-mediated communication, which involves less sharing of

physical space and real time, on one's perception of others and self?" Research question

three explores the core of this research project and is addressed entirely in rich, thick

description of the qualitative themes that emerged from the data. Within research

question three emerged two qualitative categories, young adults' Specialized Use of

Social Media and the impact of social media use on Perceptions of Others and Self.

This section of the chapter discusses the first category, Specialized Use of Social Media. This category contains data exploring how young adults specifically, and uniquely interact with social media. Within this category, three themes emerged – Expressed Motivation for Social Media Use, Unwritten Rules Guiding Social Media Use, and Tacit Motivation for Social Media Use. The following figure, 4.4, illustrates the qualitative themes, subthemes, and factors explored under the first category, young adults' Specialized Use of Social Media.

Figure 4.4

Specialized Use of Social Media
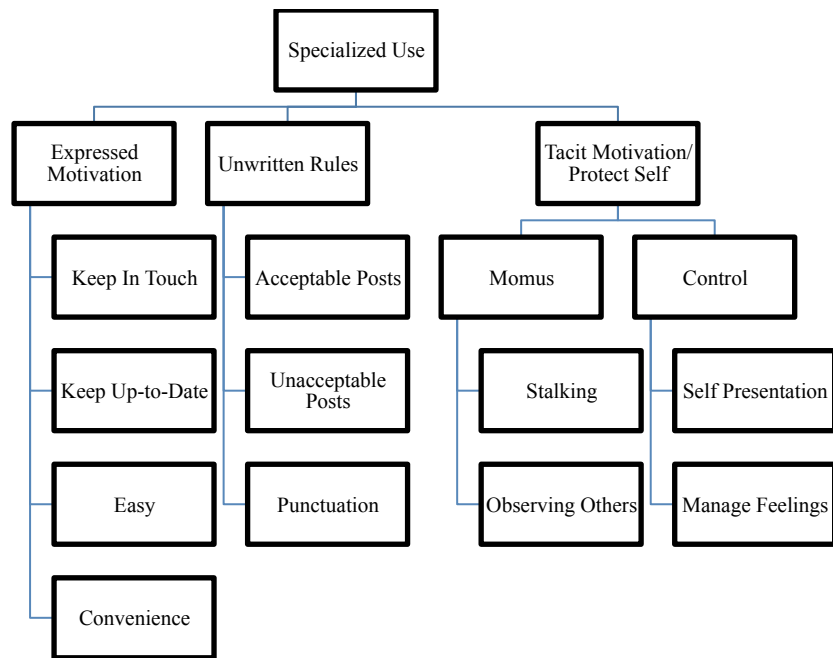
Theme: Expressed Motivation for Use of Social Media

Young adult users of social media have a complex and unique relationship with computer-mediated communication. When participants were asked what motivates their use of social media, the two most prominent subthemes were to Keep in Touch and to Keep Up-to-Date. These were similar subthemes, but different, in that keeping in touch

had to do with maintaining a relationship while keeping up-to-date was related to staying informed about others. Two additional subthemes emerged within the data; participants indicated that they were also motivated to use social media because it is Easy and Convenient.

Keep in touch. Keep in Touch, emerged as the first subtheme within the theme, Expressed Motivation for Social Media Use. Within this subtheme, participants indicated that they found Facebook to be helpful in *maintaining long-distance relationships*. Most all participants described Facebook as an easy way to connect with friends and family, from whom they are geographically separated. For example, one participant said, "Social media really helps maintain easier, long-distance relationships with people." Several participants indicated that they could keep in touch through telephone calls or Skype but found it "easier to just type a message." One interviewee commented that calling was not "necessarily something you can do every night…and you have a lot of friends or people back at home to stay in touch with so it's a lot harder to keep in touch with a lot of people at one time." These participants indicated that Facebook was not only a good way to keep in touch with far-away friends but that it was the easiest way to keep in touch with a large group of people at one time, which made it especially valuable to them.

Other participants shared that they use Facebook primarily to keep in touch with *friends from high school*. For example, one participant stated that Facebook is helpful for, "keeping in touch with people from the past, like high school people that you haven't seen in a while, just [to] see what they're up to and stuff." Another echoed a similar sentiment, adding that through Facebook she is able to keep in touch with high school friends that she otherwise would not. She commented, "It helps you stay in touch with

people that you wouldn't normally, people that live far away, people that you went to school with." A last example comes from a young woman who stated that she uses Facebook to:

> [Go] back to high school again. It's helped me keep in touch a lot with the friends that I had there and just helps me see…I know they're having a good time down there. And be like, "Hey, did you see my pictures from last weekend? Look how much fun I had." Or "I went and did this" and "Oh, yeah, your pictures look awesome. It looks like you had a great time."

Additionally, other participants described how they use Facebook to reach out to high school *friends who have gone to other colleges*. For instance, one interviewee reported, "I'm big into Twitter and Facebook, so I really just use it to post my pictures and to *talk* to friends who go to different schools." While another participant uses Facebook to connect with "my friends who are at colleges that are far away. I've been able to still *speak* to them so that's really nice that I don't have to lose contact with them until December." Interestingly, both participants used language that reveals additional information about their view of Facebook. Both described their interactions on Facebook as verbal interactions, using the words "talk" and "speak," which was a common phenomenon throughout the data and indicates a blurring of perception between virtual and face-to-face interactions.

Finally, some participants described using Facebook to connect with an even broader, *global network of friends*. One interviewee articulated:

> I have a couple of friends studying abroad. So it's really nice because I don't get to talk to them over the phone. They don't come home over breaks. You know,

it's a couple months without seeing them and it's really nice to be able to keep in

touch with them.

Another stated, "I definitely think that keeping in touch with my friends from different

countries is a huge benefit." A last comment touched on the utility of global Facebook

communication, stating that, "just staying in touch with people, especially people who

live across the globe, it's much easier and cheaper."

Although Facebook's roots are college-age users, it has transformed into a mode

of communication between people of all ages. This was evident in participants'

description of how they use Facebook to *connect with family members*. Participants

frequently shared that they communicated with their parents on Facebook, but many also

described using it to connect with extended family. For instance, one participant

expressed, "Some of my mom's cousins they have little kids and since I don't get to see

them a lot, I like seeing pictures of them in their soccer uniforms or whatever."

Another participant offered a parallel reflection, stating:

> [With] my family who lives across the country, we never, ever get to see each
>
> other *but I feel like we get so close* when we get to share pictures and talk to each
>
> other. I think it's really good for keeping relationships together and strong.

These participants allude to an intriguing observation, stating that pictures on Facebook

make them feel close to family that is rarely seen. Within the data, multiple participants

hint at the idea that being able to view pictures of other's activities heightens feelings of

familiarity, which creates feelings of intimacy. A final participant offers that she too uses

Facebook to connect with extended family, primarily out of convenience. She reported:

With Facebook a lot of my older family is on there that I don't get to see, whether

they're in other states or I just don't have time when I go home, and so I can

contact them easier and I don't have to write letters or call. It's easier to just type

up a quick message and send it.

It is difficult to neatly categorize participant's motives for using Facebook. All of the

aforementioned interviewees indicated that their primarily motive was to keep in touch

but threaded throughout that data were indicators of ease and convenience.

Keep up-to-date. The second subtheme to emerge within Expressed Motivation

for Social Media Use was Keep Up-to-Date. Using Facebook to keep up-to-date was

related to wanting to keep in touch, however, it was less interpersonally driven, and more

related to a desire to be informed or to stay "in the know." Generally, when asked about

motivation for using Facebook, participants offered comments such as, "to keep updated

with their lives," or "it helps you stay in the know." One participant explained that even

with far away friends, Facebook allows her to, "see what [her friends are] doing this

weekend…it's kinda cool to keep up with them to see what they're doing, how they feel,

what's going on in their life." Another interviewee agreed, simply stating, "Obviously,

you can call them anytime, but you know [Facebook is] a nice, consistent update to see

what's going on in people's lives, which I think is probably the biggest upside to social

media." Again, there is an interesting use of language threaded throughout the subtheme.

Repeatedly participants describe "seeing" their friends on Facebook, in a way that is

similar to "seeing" friends in person.

Curiously, when describing the desire to keep up-to-date, participants often indicated they engage in a passive observation of others, as evidenced by statements such as:

> When I get bored, I go on people's pages and see what they're up to and just keep up with people that really I don't even talk to anymore…people from high school and stuff, just to see what they're doing, where they're at with their lives.

Many participants indicated that knowing about people's activities by observing their posts on Facebook can suffice for interacting with them. One young man said, "I feel that if you can always see what your friends are up to if they're posting pictures or posting statuses you can relate to them." While another interviewee commented, "it's nice to be able to just kinda see, go directly to somebody's page or see what they just updated." The comments of these participants introduce factors related to passive observation as well as being able to know things about another without having to talk, both of which will be discussed in more depth later in the data, under the subtheme, Momus Technology.

Easy. The third subtheme to emerge within the theme, Expressed Motivation for Social Media Use, was Easy. Most all participants offered that they were drawn to how easy Facebook makes it to communicate with others, saying, "It's so much easier to just do it over the Internet than picking up the phone and calling." Others commented, "It's just nice if anyone has a thought to share with everyone; it's an easy, efficient way to share it." One participant, in particular, seemed to view using the telephone for communication as rather archaic, stating, "It's an easier way to communicate than back when it was just phones, when you had to call somebody to communicate out of person."

All of these participants focused on the convenient aspect of easiness, saying that social media, "makes it a lot quicker and easier to communicate with people…it's just the overall readily availableness of it and how much quicker it is." The convenient aspect of easiness leads into the last subtheme, Convenience.

Convenience. The final subtheme to emerge under Expressed Motivation for Social Media Use was Convenience. Participants described Facebook as a convenient way to interact with distant friends, saying, for instance, "It's a convenience kind of thing, to stay in touch with high school friends, people that I don't really interact with on a regular basis." Others commented that a particularly convenient aspect of Facebook was the ability to connect with people without having to work out scheduling. One stated, "It's convenient for a lot of things. Everybody has a different schedule so it's harder for face-to-face interactions." Another made a similar comment, explaining:

> I think it's more convenient. If you can't make the time to sit down and have a
> conversation, you can come back and be like, "oh well this person said this" and
> you can see that at any given time and respond accordingly without time restraints.

Additionally, some participants shared that Facebook is a convenient way to reach out to people. One interviewee explained, "If I see their name up on the chat bar I might just click it 'cause it's so much more convenient." It is intriguing that this participant labels this feature as convenient when it actually seems more like being able to reach out without interpersonal risk, which definitely was a theme throughout the qualitative data and is discussed in depth later in this chapter, under Tacit Motivations for Social Media Use. A last participant offered a reflection on young people's use of Facebook for convenience, stating:

It's kinda weird 'cause it's not as genuine I feel but it's more convenient. It's just

how society as a whole has transitioned and it's not like you can blame someone.

I mean I'm guilty of it, too. I talk to people through text messages but I feel like

it's more convenient at the same time.

He indicated awareness that there is a trade-off for Facebook's convenience, and yet he understands the seduction of easy and convenient communication.

Theme: Unwritten Rules Guiding Social Media Use

A second theme emerging within the category, Specialized Use of Social Media is Unwritten Rules Guiding Social Media Use. There were countless unwritten and therefore ambiguous rules governing the use of Facebook. Participants were unsure how they learned the rules, indicating that the rule developed organically and were implied through others' reactions to on-line behavior. They did agree that despite the ambiguity, there are powerful guidelines directing their use of social media. Three subthemes emerged within the theme, Unwritten Rules Guiding Social Media Use, including Acceptable Posts, Unacceptable Posts, and Specialized Use of Punctuation.

Acceptable posts. Within the theme, Unwritten Rules Guiding Social Media Use, emerged a subtheme relating to rules about Acceptable Posts for Facebook. Participants indicated in a variety of ways that Facebook is ultimately only for entertainment; therefore, posts should be happy, fun, and superficial.

Many participants commented on posts they find acceptable for Facebook, saying the best posts are "funny ones." One participant shared that an acceptable post would be, "If people had something funny that happened to them during the day, just to make someone else laugh." Most participants indicated that they liked funny posts or things

that made them feel happy. Another participant explained, " I like funny posts, things that make me laugh, videos and things like that." Participants openly disclosed, "one of the reasons why I get on-line is to look at funny things." Finally, one young woman expressed that she enjoyed reading happy posts, explaining those posts put her in a good mood and "that is what Facebook should be used for."

Additionally, participants indicated that there is an unwritten expectation that posts remain superficial. One participant directly stated, "I think people expect that to be superficial. You don't want to know what's going on in everyone's lives." When asked if Facebook was only for presenting one's best or most happy face, where should they express the rest of their experiences, participants were quick to state that sad feelings should only be expressed in face-to-face interactions or on-line private messaging with "real life" friends. This explanation was a tacit admission that a Facebook friend may or may not qualify as a "real life" friend. One participant explained:

> I feel like if I have a problem, I'll try to work it out by myself but if I need to talk to somebody, I'm gonna talk to a close friend of mine in person or call them or even text just them. I'm not just going to throw it out there for anybody.

Unacceptable posts. Also emerging within the Unwritten Rules Guiding Social Media Use theme, was a subtheme pertaining to Unacceptable Posts for Facebook. Participants indicated that unacceptable posts included posts that were trivial, including too many mundane details, or posts that included too much personal information. For instance, one participant described what she found annoying on Facebook:

> Usually things about people's personal lives that I just didn't need to hear…
> pointless things about what people are doing at the time. It's not really making a

statement or making a message. It's just saying something to say something and

have a voice when it's not really something that needs to be said.

Other participants made similar observations, commenting that annoying posts are ones

about "*everyday activities*" such as "Oh, I'm going to the gym. Got back from class. I

don't care! Do not care." It was typical for participants to respond to Facebook posts

that they found annoying by making statements such as, "my gosh, I don't need a play by

play on your boring life."

Phase three data collection occurred around the time of the 2012 elections and

participants frequently commented on their annoyance with *political posts*. One

participant was annoyed by uninformed political opinions. She said, "I feel like people

talk about politics but they don't know about politics. I don't really care what your view

on politics is." Another participant elaborated:

There was a status that annoyed me today…mostly it's about when people post

their political or religious views and [when] it's trying to push it down other

people's throats that [they] are annoying, when they're like, "you're wrong and

I'm right."

Unlike the temporary deluge of political posts, participants indicated a constant

dislike for sharing *overly personal information* on Facebook. One participant commented,

"I think some people might use it the wrong way. Like pouring out their whole life story

on a tweet or on a Facebook status." Many participants felt that people gave too much

information over Facebook in an effort to garner attention from others. For instance, one

young woman revealed:

The type of status that annoys me the most is definitely the statuses that girls

(mostly) put up in order to get attention. I view these as superficial and 9 out of 10

times ignore them. On occasion if this status is put up by a friend, I'll reach out to

them in a way that is helpful but at the same time doesn't feed into their self-

wallowing. I think it helps them more too, it's more substantial than just a sad face

icon.

When asked what participants believed motivated these over-sharing posts,

participants often stated that it was attention seeking behavior – either looking for 'likes'

or for reassurance. Ironically, these posts seem to garner the exact opposite reaction from

what posters were hoping for. For instance, one young man reported, "I've seen

countless statuses…a lot of times I'll just make fun of them. Not when they're in distress

but when…they're looking for attention…I'm like you're pathetic…get a friend. They're

the generic status to try to solicit 'likes' or comments or something like that."

Another participant explained:

I [saw] a lot of people…who'll put something on Facebook just to see how many

'likes' they can get or because they're feeling uncomfortable. I have problems

too. Everybody has problems. You don't see them posting it all over Facebook.

Responses to annoying posts provide evidence of the callous responses given in response

to posts that participants found to be unacceptable. Participants repeatedly made

comments such as, "I don't care," "you're pathetic," or "get a friend."

At times, it was difficult to determine the content of an unwritten rule guiding

Facebook conduct, however, one of the most telling indications of the location of a

boundary was the reaction from participants when a rule was broken. They expressed

tremendous disapproval of participants who posted too much too often, referring to these posters as *Facebook whores*. While participants indicated that there is no set limit on how frequently a user can post on Facebook, they were quick to indicate that if "you're always posting stuff" or "constantly on Facebook, all day, all day" then you qualify for whore status. They also stated that it was common practice to de-friend Facebook whores, simply because they were "too annoying" on Facebook.

Frequently, interviewees reported that when they read annoying Facebook posts, ones that broken the unwritten rules of social media conduct by being too frequent, too trivial, or too emotional, they responded by either scrolling past and ignoring the post, blocking unwanted newsfeed, or by de-friending someone. Callousness, as seen in this section is discussed in more depth later in the chapter under the theme, Awareness of Others.

Specialized use of punctuation. The final subtheme to emerge within Unwritten Rules Guiding Social Media Use theme, was Specialized Use of Punctuation. Again, there were no set, formal guidelines, only an informal and somewhat ambiguous set of rules. Participants indicated that specialized punctuation was a way to *communicate nonverbal information* such as tone or facial expression in written text.   For instance, one young woman stated, "I never use periods 'cause that just seems serious and angry." In fact, a period at the end of the sentence has a special name, an "angry dot." Another interviewee commented, "I'll put a period and then laugh out loud or 'ha ha'" to soften texts as an indication of playfulness or sarcasm. One participant shared how he attempts to convey tone through text, "you can say 'LOL' or something like that. I do that a lot if I'm joking with someone. Or I'll say 'ha ha' or something like that to indicate that it's

not serious." One interviewee indicated that she views the use or non-use of exclamation points as potential indicators of rude behavior. She said:

> I'm a little more sensitive than most people, but if someone doesn't put an exclamation point after what they're saying I'll be, 'oh wow, that was really rude for them,' just because I feel like everything on Facebook is you're so excited about posting it.

Despite the common use of various punctuation techniques, many participants shared that it is difficult to fully convey what they mean through written text and that it can still be *misinterpreted*. For instance, one young man explained:

> If it's sarcasm that I'm putting over mine, I'd want to make sure people know it's sarcasm so a lot of times I'll just put a 'ha ha' at the end or something like that. I mean there's only a certain extent to what you can put in a text to really convey those kinds of non-verbal cues. I mean you can put in smiley faces but those can be misconstrued as well, you know? You can put in a smiley face like you're excited about something but somebody could take it as you're flirting with them or something like that. So even the non-verbal text cues can be misconstrued.

Another participant who used exclamation points and ellipsis to create a fuller emotional experience to her text echoed a similar sentiment, saying that people still misinterpret her intent. She shared, "I think people read them differently 'cause people are always like, I hate it when you do that dot-dot-dot. I always think you're mad at me."

Furthermore, there were *gender differences* in participants' perceptions regarding the specialized use of punctuation. For example, male interviewees frequently said that when reading written text from another male punctuation is not a large factor in their

interaction, however, specialized use of punctuation was a consideration when interacting with a female. For instance, one young man stated, "if I'm talking to a girl and she puts a dot at the end of a sentence it does enter my mind [that] she could be annoyed about something." Another male readily concurred saying that a period in a girl's message causes him, "to think for a second, is she mad or something…is she annoyed about something." It was also apparent that one gender did not always know the meaning of the opposite gender's use of punctuation. One male interviewee speculated, "the amount of 'y's at the end of 'hey' is…how much they like you," while another corrected him saying, "No, dude, it's the amount of dashes after the smiley face. If there's five smiley faces, little closers that's how much the person likes you."

Theme: Tacit Motivation for Social Media Use/Psychologically Protect Self

The last theme, within the category Specialized Use of Social Media, was Tacit Motivation for Social Media Use – using Facebook to psychologically protect the self. Similar to the data presented under the category of Interpersonal Communication Preferences, participants could easily recite their expressed motivations for using social media – to keep in touch, to keep up-to-date, and because it is easy and convenient. In the process of exploring their unique use of Facebook, including their tendency to be passively involved with Facebook and the expectation that they only present the happy sides of themselves, led to a tacit motivation for using social media, which was primarily understood as a way to psychologically protect themselves.

Momus technology. Within the theme, Tacit Motivation for Social Media Use, emerged two subthemes, one related to the Momus characteristics of social media and one related to having more control over social interactions. In this section, the first,

Momus Technology is discussed. According to Aesop's Fables, translated by Laura

Gibbs (2002):

> The story goes that Zeus, Poseidon and Athena were arguing about who could
>
> make something truly good. Zeus made the most excellent of all animals, man,
>
> while Athena made a house for people to live in, and, when it was his turn,
>
> Poseidon made a bull. Momus was selected to judge the competition, for he was
>
> still living among the gods at that time. Given that Momus was inclined to dislike
>
> them all, he immediately started to criticize the bull for not having eyes under his
>
> horns to let him take aim when he gored something; *he criticized man for not*
>
> *having been given a window into his heart so that his neighbour could see what*
>
> *he was planning*; and he criticized the house because it had not been made with
>
> iron wheels at its base, which would have made it possible for the owners of the
>
> house to move it from place to place when they went travelling.
>
> Since ancient times, humans have desired a window into another's heart, so that

one might be privy to the thoughts and desires of another. Interestingly, Facebook has

done just that (van Manen, 2010). Facebook allows users to look through the virtual

heart of another and based on the information gathered approach the other in a manner

most likely to be well received and therefore, interpersonally successful. There are

several ways that participants indicated they use Facebook to learn things about others,

including Facebook stalking (user specific language) and observing others through

passive engagement with Facebook.

> **Stalking.** According to Abram and Pearlman (2012), the term Facebook stalking

is a derogatory slang term that refers to a person who spends a great deal of time on

Facebook, especially viewing other people's profiles. Other slang words similar to Facebook stalking include creeping and lurking, all indicating spending a great deal of time investigating the profile of someone else. Participants self-identified as Facebook stalkers, by title and described behavior. Interestingly, participants readily used this term to describe themselves as well as others, but seemed to feel that it was becoming less derogatory and more commonplace and normalized. One participant stated, "The term Facebook stalking has gotten less creepy and less stalking and more like finding out in general what people are doing." Another interviewee agreed, "I think everyone knows that people stalk. I'm not a hardcore stalker but I think when you sign up for Facebook and when you accept friendships you know that people are going to look at your whole wall and stuff." This participant seemed to indicate that simply participating on Facebook makes a user complicit in Facebook stalking.

Participants offered that Facebook stalking is often used to gather information on another person in order to make face-to-face interactions smoother and less awkward. One participant stated that when she meets someone face-to-face she immediately stalks him or her on Facebook, looking for *common ground*. When stalking someone on Facebook, she indicated that when:

> I initially become friends with someone I stalk them really bad. I look through all their pictures and look through what they like to try to find something that is in common with me so that even the next time that I see them on campus I'll be, "Oh, my gosh," 'cause I will admit that I stalked them, whatever.

> In addition, to looking for common ground, other participants indicated that they used Facebook stalking as a way to *initiate conversation*. For instance, one young

woman revealed that she might tell someone that she recently stalked, "I stalked you the other day and I noticed that you went to this concert and I think I was at that same concert. And then it kind of gives you an easy entry to conversation." Another participant felt that Facebook is a good "prep before I actually go in and talk to them" and another said it's just, "a nice little cushion." Still others referred to Facebook as a "social safety blanket" or a "social lubricant," all of which indicate that users see Facebook as a way to increase the probability of being interpersonally successful.

   Observing others. A subtheme emerging within the theme, Tacit Motivation for Social Media Use was Observing Others. Interestingly, and perhaps ironically, although the intended use of Facebook is to create and maintain interpersonal connections, many participants stated that they spend a significant portion of their time passively observing others and engage in little to no active interpersonal interaction. The most interactive participants reported a fifty/fifty split between the time they actively engage in interpersonal interaction and the time they spend observing other people. An active participant shared, "I'd probably say it's a good half of the time. Fifty percent of the time it's me putting myself out there and 50% it's me looking to see what other people have put out there as well." Another participant provided a similar answer, "It's probably about 50/50. I tweet a lot or I'll have conversations with people over Facebook a lot, so about half the time is spent actually observing and half of its actually contacting people."

   However, the majority of participants spend far more time observing rather than interacting with others. When asked how they spend their time on-line, participants said they spend their time on-line "looking around and seeing other conversations," and "looking at what other people are doing." About half of the interviewees revealed more

extreme responses, saying things like, "I never post anything! Occasionally I'll comment on something but I'm usually just a silent lurker." Another interviewee elaborated:

> I would say that almost 100% is observing. I rarely update statuses or comment on anything or write on anyone's wall. I'll go from one person's status and then I'll click it and then I'll just get in that mood where, I know other people are guilty of it too, where they just get into the you click one thing and that leads to clicking another, and then another, and then another.

A common use of Facebook was "just to see what everyone's up to and I'm kind of a creep when it comes to that. I don't put anything on it. I just read other people's things."

When asked what benefits there are to observing rather than participating, interviewees indicated that observing others kept them up-to-date, which is a primary expressed motive for using Facebook. Additionally, participants shared that knowing things about someone creates a feeling of connection, which ultimately results in feelings of familiarity, a quality of intimacy.   Participants also indicated that Facebook is a way to *know things without needing to actively talk* to someone else, as indicated by one participant's comment, "even if you're not talking to them you can still stay updated on their lives." Another added that Facebook is "a good way to keep in touch with people and keep updated in their lives without having to actually call them, which is awful." A few other participants made similar self-reflections; elaborating on being able to feel connected, without actually needing to talk with another person, "You know that the other one's looking at what you're doing so you kind of have that connection without having to talk every day." Being able to know things about another seems to create feelings of familiarity and connection, feelings that young adult user's of social media

value. One participant summed it up, in his statement, "you can still know that you're connected with someone and see what they're doing without really being with them."

Additionally, participants indicated that their passive observation does have an impact their perception of others, simultaneously feeding feelings of connection while being cognitively aware that their observation does not mean they actually know the person whom they are observing. For instance, one participant sharing that, "the people I went to high school with, I would never comment on their stuff. I barely knew them in high school. I definitely don't know them now." Another participant elaborated on the disconnect that she feels based on her tendency to spend so much time observing others, "I don't feel like I really know the people that I'm friends with on Facebook. It's more like TV, I'm just watching other people's lives." Passive observation proves to be an important element in developing feelings of deindividuation, which will be discussed in depth later in the chapter under the theme, Awareness of Others.

Control. In this section, the second subtheme, Control, which emerged within the theme, Tacit Motivation for Social Media Use, is explored. In an effort to psychologically protect themselves, participants shared how Facebook, and other forms of social media, provide a sense of control over their interpersonal interactions as well as their on-line presentation. Young adults indicated that they preferred using social media because they are able to think over responses, take a break, and censor their thoughts. This gives them more control over both what they say and how they say it.

Multiple participants shared that Facebook gives users "more time to think about what you're going to say;" being able to *think over their responses*, allows users to be more thoughtful and deliberate in what they say. One participant said, "I realized that

when I'm talking to someone through social media I think about it more, think about what I'm saying as opposed to a social interaction where you can't think about what you're saying."

Participants theorized about the benefit of being able to think before "speaking" on Facebook. One participant attributed the desire to be deliberate to a fear of making a mistake in social situation. He explained:

> They get too very, very self-conscious of making a mistake; whereas, maybe on social media you do make mistakes but you can think about what you're gonna say for a little bit longer so you can type out exactly what you're trying to say for this specific situation.

Another participant agreed that social media users like to be able to think things over but felt that this desire was motivated by trying to present better than they might face-to-face. This participant explained:

> On-line you can think out what you're going to say…something you say might not be your natural reaction. It might be something someone wants to hear that you thought about or you word something that might have not sounded very good if you had just said it in a conversation. But you make yourself sound smarter or something because you think it out.

The common denominator for participants was the ability to word things in a way that they would not regret and written text allows more control over not only what is revealed but the ability to make changes or corrections before committing to any communication transaction. This is illustrated in the following observation, "[Facebook is] a good place

to state [an] opinion because [you can] hit backspace and rethink what [you were] going to say."

In addition to being able to think over responses, participants indicated that they liked that it is socially acceptable, another unwritten Facebook rule, to *take more time before responding*. While there would be pressure to end awkward silence in face-to-face interactions is perfectly acceptable to "take a break" during on-line written communication. One young woman gave the following example:

> If someone asked you to a dance on-line, which no one ever has but this is just an
> example, I can think about it, "Okay, what will my friends think? What should I
> say? What's an appropriate answer?" But when you're face-to-face you have to
> [say] either 'yes' or 'no' right away or else it'll be awkward. But [on-line] you
> can [say], "Oh, sorry, I was helping my mom with dinner." And then15 minutes
> later answer it.

Several others commented on the acceptability of taking a break on-line, one stating, "If I were typing on the Internet I could take as long as I wanted to respond and *see* what I want to say." Again, there is interesting use of language in this statement, indicating a blur of the perception between virtual and real worlds – how exactly does one *see* what they want to say? In this final example, the participant shared how both taking a break and being able to think over what she wants to say help her manage situations that are emotionally charged. She revealed:

> If you're face-to-face, then you're expected to answer right away, expected to
> have the perfect answer right when the conversation requires it. But on-line it's
> just a little easier to say what you mean 'cause you can delete things if you don't

want to say that. If you were going to say something in the heat of the moment,

you can like take a break and relax, erase, and then type something more

reasonable.

Early on in this section of results discussing the use of Facebook to psychologically

protect self, one participant indicated that participants were afraid of making a mistake.

That fear is echoed in the last participant's statement when she discloses that one

difficulty in face-to-face interactions is the pressure to answer right away. She indicates

that the pressure extends beyond spontaneity and includes the pressure to quickly and

spontaneous have the "perfect answer." She avoids this pressure by interacting on-line

where she has more control.

  Self-presentation. As one considers the pressure to present perfectly, it really

comes as no surprise to find that a factor within Control, relates to the ability to manage

one's on-line Self-Presentation. Participants indicated that Facebook provides a chance

to be the person they wish they could be in real life, which in turn allows people to get

needs met that go unmet in the real world. One participant had a fascinating observation:

  Every time in get on Facebook, I think of everyone as their Sim person that they

  walk around. They're living the life they wish they always could in person. And

  you just sit there and [think] you're being the person you always wished you

  could be, through a computer 'cause you can't be that in real life.

  Many participants shared an expectation that they feel pressured to present

themselves well on-line. This expectation is supported by earlier data about acceptable

posts and the expectation that people should only present the happy versions of

themselves. When asked what they hoped their Facebook pages said about them, most

participants indicated that they hoped their Facebook page made them look good. For instance, one young woman shared, "I just want people to think that I have a positive attitude and outlook and I like to cheer people up with some of my statuses." Another interviewee, who said, "When I post things, they're meaningful and appropriate and kind to other people, expressed a similar hope. I don't say bad things…I just want them to speak for me in a way that's positive." Another participant stated that she wanted to "show off" that she got in JMU and is having fun. One interviewee had more specific goals, saying that she hoped people could tell that "I'm very active. I'm involved in school. I got into a bunch of programs here. I'm generally a very happy person and it shows." Others had more general reflections, such as "I want it to make me look good," but they all agreed that they hoped their page reflected well on them. Based on the commonalities within their comments, it becomes apparent that presenting well on Facebook, means presenting as happy, involved, and reflecting a positive attitude. Clearly, however, no one can be happy and positive all of the time, thus the pressure to present only the best parts of themselves on-line.

Many participants disclosed that Facebook users try to put their "best foot forward" on-line. Participants shared that people airbrush photographs to whiten teeth, create a tan, remove blemishes, or take off pounds. One participant stated, "You can even tell…you click on their picture and…they look flawless." More than presenting a flawless physical appearance, participants shared that there is pressure to present a flawless personality. One young woman openly disclosed how she finds herself trying to present as more interesting or entertaining on Facebook. She shared:

I've done that…I'll elaborate on things that didn't really need to be elaborated on

just to make myself look better. I'll purposely put up good pictures of myself…I

just feel like it's the world that we're living in now. It's so different. I definitely

think people are putting on a front and trying to make themselves look better than

they really are.

One participant shared that it was easy to present a happier version of yourself on-

line, disclosing:

It's easy to be very fake and superficial on Facebook. Some people don't know

you as well on-line so you can make a different version of yourself to appear

more confident and not look as lonely and post lots of pictures to look like you're

having a great time, even if you're not.

Another interviewee agreed and stated that she found this to be related to the desire to be

popular. She felt that having Facebook count the number of friends a person has or the

number of 'likes' a person gets promotes a competitive atmosphere, particularly relating

to popularity. She explained:

I definitely think [presenting better is] something that a lot of people try to do

even if it's just with their pictures. They try to seem more attractive but not even

in the looks sense of things but just all around more attractive so that people will

want to like them. I know that people still have competitions to have the most

friends on Facebook or something like that.

Additionally, many participants shared that they have had experiences with

people, in which, they discovered incongruences between others' on-line and off-line

presentations. Often they felt that people were showing only their good side for the

Facebook camera, observing that others are often seem prettier, smarter, or nicer on-line than they experience them in real life. One interviewee commented on the discrepancy between others' perfect on-line presentation and the person they experience face-to-face, observing, "I definitely think people emphasize themselves more over Facebook because until you meet that person face-to-face, you really don't know what kind of person they are." Another participant commented, "I definitely think it ties in with the whole wanting to be somebody that you can't be…depending on how you use Facebook, people could definitely see you as somebody different than who you are in real life."

One participant elaborated by stating that it is confusing to find out that someone is different in real life than they have experienced them on-line. One can hear her confusion as she wonders, "You meet them in person and [wonder] why are you not this person that I've known you to be?" Another shared that even with friends or roommates that are in close proximity there can still be incongruence between the person they know on-line and how they experience them face-to-face. She disclosed, "I've had some experiences with my roommates doing that, where they'll be very friendly and nice in their text messages or Facebook messages and then in person they'll just ignore you."

When asked how this happens; how is that people are able to present nicer personalities on-line versus their real life presentation, participants shared that it is easier to present only their best selves on-line. One young woman finds the difference as, "They haven't been as upbeat. It's so easy to press an exclamation point but in person it's harder to try to act happy all the time and be outgoing." It is interesting that she actually prefers the one-dimensional, always happy version of a person rather than a multi-faceted, sometimes unpleasant but real version.

An additional factor in presenting only the most acceptable parts of oneself is by *censoring on-line material*, a common practice among young adult social media users. They censor in simple ways, like "if my friends post something with a curse word in it, I delete it," because they do not want their parents to "think that's who I hang out with." Ultimately, they can censor their friends, in order to control how they might reflect on them, something they would have far less control over in real life. They also censor their photographs on-line, reporting, "A lot of my friends on Facebook are my family so there are a lot of things that I can't post as far as pictures go just because all my family talks and so I don't really want that to go around."

Manage difficult feelings. The final subtheme within the theme, Tacit Motivation for Social Media Use relates to using Facebook to manage difficult feelings, particularly feeling awkward and alone, as well as fears related to possible rejection. Study participants, without exception, all shared awareness of how Facebook mitigates feeling awkward. Obviously, managing awkwardness or social anxiety is an enormous aspect of young adults' use of Facebook, and other forms of social media.

Feeling awkward. Generally, participants shared that Facebook was a good place to retreat when feeling awkward. One participant disclosed, "I use Facebook a lot to avoid [feeling] awkward because I see myself as really socially awkward." Interestingly, the next participant shared that she even though she used Facebook to avoid feeling awkward, she was simultaneously aware that using Facebook clued others in to her social discomfort. She explained, "I'm not very good in awkward situations. I don't really know what to do and it's a good distraction and I think everyone really knows when you're on your phone or on Facebook that you feel uncomfortable." Another participant

shared:

> I've probably been a culprit of it, too, just when you feel you're in an awkward situation…I feel like we all feel like we need to talk to somebody all the time so if we feel awkward, we just really want to talk to somebody that we're comfortable with so we might pull out their phone and text somebody from back home.

In addition to managing feelings of awkwardness, he indicates that there is some fear of being with one's own self, without entertainment or distraction.

Specifically, participants shared ways they used Facebook to manage feeling *awkward with strangers* as well as managing social discomfort within established relationships. It was common for participants to state that they felt awkward when waiting for or riding on the bus, saying, "If you're at a bus stop with a bunch of people, if you just look down the bench, if there's 17 people, 15 of the 17 are going to be on Facebook." Another participant concurred, saying that while she was waiting for the bus, "[I] don't want to be sitting here, by myself, *what am I supposed to be doing*?' The previous participant hints at an interesting phenomenon when she remarked, what else should she be doing, an indication that using Facebook to avoid feeling awkward has become the norm.

In addition to using Facebook while waiting for or riding the bus, other participants used Facebook to manage feeling uncomfortable while waiting for class or standing in line. For many, like both the previous and the upcoming participant, it is the norm to get on Facebook while waiting. This participant indicated that she always gets on Facebook while waiting, but defends her actions by saying, "I mean that's how it is like pretty much with anybody. Any time you're waiting around with people and there's

nothing really to say, everybody's just on their phone either texting or probably on Twitter or Facebook."

Additional comments regarding using Facebook to avoid feeling awkward included, "When I have to wait for something or I'm waiting in class and no one else is talking and you're just sitting there and staring…instead of awkwardly staring you're just gonna stare at your phone on Facebook." Another shared, "if I'm waiting for something or in the awkward position of no one's really doing anything or around…you just hide into your phone a little bit." This participant's use of language is interesting; hiding in one's phone indicates another blurring of the boundary between real and virtual worlds.

In addition to managing general feelings of awkwardness, one participant specifically used Facebook to manage basic interpersonal interactions. She was fearful that she might not recognize an acquaintance or worse, they might not recognize her and that would be embarrassing, so she avoided it altogether by looking at social media on her phone while she walked across campus. She shared:

> I have all my classes on the quad here and I live Lakeside, which is right across the quad. So I spend a lot of time walking through the main stretch of the quad and there's a lot of people and if you kind of know someone but don't really know them and it's kind of awkward and you would say 'hi' but if they don't say 'hi' you're not going to say 'hi' kind of thing, you would just look down at your phone and pretend that you don't see anyone. Definitely the walk back to my dorm is a lot less awkward if I'm just looking down at my phone and don't even see all the people.

While it might seem reasonable for participants to use Facebook when feeling awkward with groups of strangers on the bus or waiting for class, they also disclosed that they continue to use social media to manage their social anxiety *in already established relationships*. One young woman shared that she gets on Facebook if her friends are not involving her in the current conversation, "I mean when I go to lunch with friends and they're off on their phones and I'm just sitting there, sometimes I'll just pull it up." One participant discussed using Facebook as a conversation starter, "When you do meet [someone] face-to-face it will allow you to have a conversation starter [rather than] an awkward, "Oh, hey" awkward silence."

It was also commonplace for Facebook to be used to bridge the initial awkwardness in a new romantic relationship, an interpersonal interaction that is often particularly risky and potentially awkward. One participant observed, "You can carry on a conversation longer through texting, which I know a lot of people do, especially if it's with somebody who they like." Another person concurred, "I know a lot of times when people are talking to each other…two people who like each other they'll talk through text messages or on Facebook." One young woman elaborated, sharing a recent example:

It happened last night actually. One of my friends was up in my dorm room and we were just chatting for a couple of hours and then when he went back to his room, we texted after and the way that we were texting wasn't the way that we were talking. And I realized that. I guess he, it wasn't so much me, but I guess he was way more comfortable saying whatever he felt like saying by texting it to me instead of saying it to me. It got more personal. I don't know. I was really confused about it. From last night and I'm still thinking about it. But he was

asking…things more about me instead of talking about things that are superficial that we were just kind of chatting about.

In general, participants think that using Facebook to manage social awkwardness is normal and socially acceptable behavior. One participant used the example of meeting roommates on Facebook and explained, "I feel that's just how most people do it nowadays. I feel like that's the norm…I'll talk to this person on Facebook."

Many participants, in addition to their own use of Facebook to manage difficult feelings, described how they observe others using it in a similar manner. Participants made comments such as, "I've definitely noticed people using their phones in a social situation where they felt awkward." One participant offered an interesting observation of his friends, sharing, "I guess when they feel awkward they don't really actually like go on and look for things. They just want to give the impression that they're doing something on their phone." The previous participant indicated that others are aware that they use Facebook to create a false sense of busyness in order to manage social anxiety. Another participant agreed, but quickly confessed that he could relate to the behavior of others:

> It's a little funny 'cause, you aren't gonna laugh, 'cause I'd be doing the same
> thing. So you know why they're on Facebook or you're wondering if they're
> feeling awkward or uncomfortable and that's why they're on Facebook. It's
> kinda funny 'cause you can relate to it.

Unlike the previous participant, a few participants indicated that their observation of others' awkwardness made them avoid behaving in that way; they were aware that using Facebook could clue others into their awkwardness and they did not want to give that impression to others. One participant observed, "I just try not to use it 'cause I do

notice people being awkward. When they feel they're in an awkward situation, they just feel the need to pull up…I just don't want to do that." Another participant agreed and shared, "For the most part I definitely notice people trying to avoid awkward situations when they do that. I just try not to do it 'cause I think I realize it more than a lot of other people."

While many indicated they have at least at some point, and sometimes frequently used Facebook to get to know people ahead of time, participants had varying degrees of success in feeling that it actually reduced interpersonal social awkwardness. The majority of participants had experiences of finding and meeting roommates over Facebook. About half of those, felt that Facebook had helped them get to know their roommates ahead of time and eased their transition to college. For instance, one young man shared his experience of using Facebook to get to know his roommate ahead of time. He said by the time they met in person at school, "It was like we were already friends. We didn't have to deal with the whole, hey, person across the room, kind of thing." Another young woman felt that Facebook made the initial meeting of her roommate less awkward because, they already knew little things about each other, "So we were able to just have normal conversations from the start instead of having it be, Hi, I know your name but nothing else." Another participant summed it up by saying that getting to know each other through Facebook, made she and her roommate feel, "like we knew each other…so when you meet for the first time it's not, I don't know where to start the conversation."

Other participants who used Facebook to get to know their roommates ahead of time, however, did not find Facebook to be helpful in reducing the awkwardness of their

initial face-to-face meetings. One participant felt that the familiarity developed on-line did not translate well to her real life interactions. She shared:

> It was still awkward though, in my opinion, because we mostly had just talked about books and music and…I guess when you're living with someone that you haven't met before, it's always gonna be kind of, "Oh, hi, this is our room that we share."

Another participant agreed, saying, "When you haven't seen someone but you've spoken to them on Facebook, it makes things a little bit more awkward because the last interaction you remember is on-line…oh, you typed that to me." This participant theorized that genuine, embodied human contact, versus "you typed that to me," makes all the difference in the realness of familiar feelings.

Feeling alone. Another cluster of nodes within the factor, Manage Difficult Feelings was using Facebook to manage Feeling Alone. This cluster of nodes was particularly complex because participants were able to differentiate that at times they were managing their own feelings related to being alone and at times they simply did not want to appear alone to others. Furthermore, there were times that connections were made between feeling alone and feeling lonely – mirroring the complex quantitative data revealed in the exploration of research question two.

Participants were particularly poignant in their discussion of using Facebook to mitigate feeling alone and lonely. One participant disclosed, "Usually my roommate goes away for the weekends and when I'm just sitting there all alone, I usually just keep on going on Facebook and stuff to see what my friends are up to and maybe talk to someone." Other participants were quick to connect how feeling alone leads to feelings

of loneliness, which they sometimes address by distracting themselves on Facebook. One freshman revealed:

> I feel like as a freshman I've definitely pulled that card a lot or when I'm walking around campus I see people walking together. I don't know, it makes you feel lonely 'cause you're not walking with a friend or talking to them so [you think] I'm gonna distract myself and not look at everything else and just go on Facebook.

Others indicated that they used Facebook to remind themselves that although they are alone on campus and might feel lonely here, that they are well liked by others, who just are not present with them. For instance, one participant explained, "I definitely use Facebook as a way to remind myself that I do have people who I'm friends with back home and so yes, I use it to make myself feel not as alone." Another shared a similar use of Facebook, but shared that it made her loneliness more poignant in the moment because she was both alone and missed her other friends. She described sometimes wondering:

> What am I doing here…it kind of makes you feel more lonely, in a sense, because you don't have the same connections with people here or wherever you are, but then you have this other half of you that [says] I do have people there for me. They're just not here.

> Interestingly, it was just as much of a motivator to not appear alone to others as it was to not actually be alone. Participants seemed to fear that being alone might mean that there is something wrong with a person – that they are undesirable or deficient in some way. One participant revealed, "You don't want to look like the person that's sitting there alone and not doing anything, so you sit on your phone," while another

participant said, "I like being engaged in something when other people are looking so you don't look like you're by yourself."

Another participant touched on the impression that being alone might mean that a person is boring or friendless, however using Facebook could give an impression of popularity. She commented:

> They want to give the impression that they do have friends or they do have a life, or they aren't super boring or something. So they want to show that even though this situation is awkward, it will get better 'cause they have like cool friends or they have something to feed off of.

Another participant agreed that it was important not to look alone, and gave an example of how she used Facebook to be sure that people did not think she had no friends to eat with at the dining hall. She shared, "I didn't want them to think I was alone and so maybe I was taking it out to look like I'm waiting on friends or something." Lastly, one young woman shared that Facebook could help a person feel wanted, even when they were alone or felt unwanted in real life. She explained that Facebook can make a person feel, "you belong somewhere and feeling like you're popular when you get notifications. You get that sensation of, oh people like me. So if you're feeling uncomfortable and alone, it makes you feel wanted, popular."

A few participants offered reflections regarding the meaning of being alone. One participant felt that technology could be used as a way to mitigate aloneness and that with Facebook, no one has to ever actually be alone. He explained:

> I feel like everybody is so concerned with people thinking that they're lonely and that they're by themselves that they kind of have to put up the appearance that

they aren't lonely. They're just alone, physically. They're not alone in spirit or in

electronics.

A last comment comes from a participant with a bit of cynical twist to his observation,

"You can keep feeling alone to yourself but looking alone, God forbid, other people think

that."

Possible rejection. Finally, managing Possible Rejection is the last cluster of

nodes within the factor Managing Difficult Feelings. Many participants shared ways that

they used the knowledge gathered on Facebook to ease themselves safely into new face-

to-face relationships. For example, one participant shared that it was common for her to

follow up a face-to-face meeting by making a Facebook friend request. She shared that

she would end an in-person meeting by telling the other person to find her on Facebook,

allowing her, "to message them and [say], "Hey, it was really fun. Let's go get lunch

sometime." Interestingly, she indicates that it is easier, and less interpersonally risky to

extend an invitation over Facebook then it is face-to-face. Another participant shared

how she uses Facebook to reduce her risk of rejection, stating:

> If I meet someone at work, a lot of times I'll add them on Facebook right away so
>
> that I can see what their interests are. I have a hard time knowing what to talk
>
> about with people. I'm not good at conversation starting and I'm always afraid
>
> that something I'm gonna say is going to offend them and they're not going to
>
> like me anymore.

The previous participants allude to experiencing Facebook as a safe venue for reaching

out to a real life acquaintance in a socially acceptable and less interpersonally risky

manner.

Even with already established friendships, participants indicated it was less risky to reach out on Facebook rather than making a more personal contact "out of the blue." For instance, one participant stated, "I'll see if they're on [Facebook] first and then maybe call them." Another agreed that, "It would be weird just to be text them or call them out of the blue to see how they're doing or something." However, it was not seen as odd to reach out on Facebook, as this participant shared, "If you see someone on-line…you can kinda message them and be like, "Hi, are you busy? Do you want to talk?"

Participants felt that the interpersonal distance created by Facebook made rejection more manageable than it felt face-to-face. For instance, one participant explained:

I feel that sometimes if you're on Facebook you can kind of message that person, "Hey, I haven't seen you in a while" and it's really as not as big of a rejection if they don't answer you…if you call them and they didn't answer or you went up to them and they're like, "who are you?" So I feel like in that sense you can definitely put yourself out there more to maybe try to connect with someone you haven't seen in a while.

Another participant agreed, stating that face-to-face rejection is far more painful and causes people to second-guess themselves. She indicated:

If they didn't answer me [on Facebook]…It's not gonna kill me. But if you saw them or tried to really put out effort to call them and actually talk to them and they didn't…I feel like it'd kinda be a slap in the face…maybe I shouldn't have tried to talk to them.

All of these participants' responses indicate that social media feels less risky interpersonally than face-to-face communication. Additionally, they feel more capable of managing hurt feelings if they were rejected; Facebook allows them to "save face."

Within the first part of research question three emerged the qualitative category, Specialized Use of Social Media, which contained data exploring how young adults specifically and uniquely interact with social media. Within this category, three themes emerged – Expressed Motivation for Social Media Use, Unwritten Rules Guiding Social Media Use, and Tacit Motivation for Social Media Use. Participants easily recited their expressed motivations for using social media – Keep in Touch, Keep Up-to-Date, Easy, and Convenient. Keep in Touch was an interpersonally driven motive expressed as a desire to maintain relationships in contrast to the motivation to stay informed, which was expressed as the desire to Keep Up-to-Date. Lastly, participants expressed that social media is an easy and convenient way to interact with others, a perceived benefit of computer-mediated communication. Unwritten Rules Guiding Social Media Use captured the unwritten, ambiguous rules governing the use of Facebook, including the pressure to keep Facebook entertaining by posting only happy, funny, and superficial posts. These posts emerged in opposition to unacceptable posts, which were defined as too frequent, too trivial, or too emotional posts. A final subtheme within the theme, Unwritten Rules Guiding Social Media Use was Specialized Use of Punctuation. Users engaged in a specialized use of punctuation primarily to enhance the limited expression of nonverbal information on-line. The final theme, Tacit Motivation for Social Media Use emerged in contrast to the Expressed Motivation for Social Media Use and was the most interpersonally revealing theme. This theme was understood as a way for social

media users to psychologically protect themselves. It resulted in two subthemes, Momus Technology and Control. Momus Technology related to using social media to covertly learn about others in an effort to approach others in a manner that is likely to be well received and result in a successful interpersonal interaction. Control captured data related to an increased sense of control over the interpersonal interaction, strategic management over self-presentation, and ability to manage difficult feelings such as feelings of awkwardness, aloneness, and fear of rejection. The following section focuses on the second part of research question three, pertaining to the emergent themes, Self-Perception and Awareness of Others.

Research Question Three – Part Two

The previous section's results focused on the first part of research question three, the unique way that young adult's use and interact through and with Facebook, and other forms of social media. The following section focuses on the second part of research question three; this qualitative category explores the impact of social media use on perceptions of self and others. Two themes emerged within the data, Self-Perception and Awareness of Others. In this section, each of these themes, subthemes, and factors are fully explored, as illustrated in the following figure, 4.5.

Figure 4.5

Perceptions of Others and Self

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        ┌──────────────┐                 ┌──────────────┐
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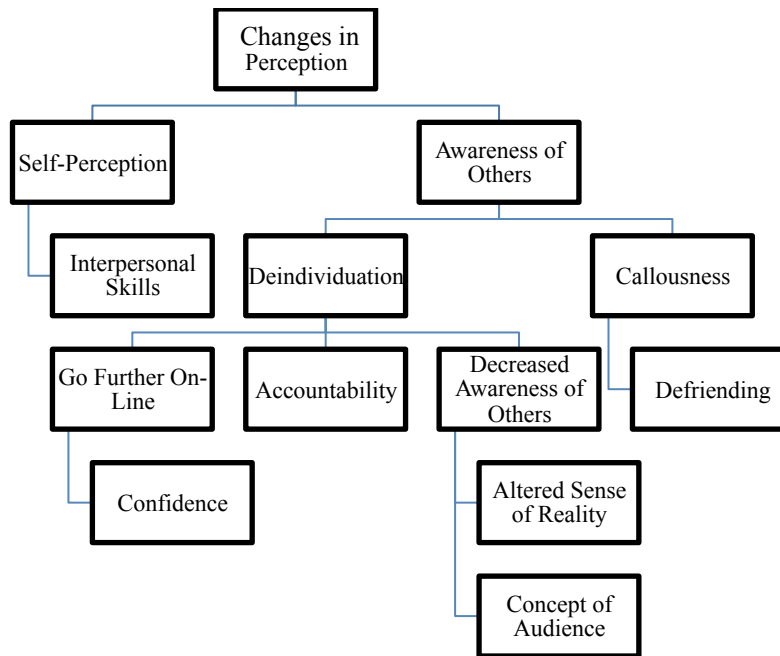
Theme: Self-Perception

The first theme, emerging with the broad category, Perceptions of Others and Self, relates to participants' Self-Perception. When asked what impact participants saw social media having on their perceptions of self and others, interviewees were remarkably self-reflective. One interviewee stated:

> I think that my generation is way too reliant on technology. Things like meeting people for the first time and interviews are becoming more intimidating because we're becoming accustom to avoiding that kind of direct confrontation. Technology allows us to take shortcuts and communicate more efficiently, though not more sincerely. By using Facebook as a blog, people are posting about every feeling or annoyance they've ever had. In my opinion this is making on-line

communication more fake and less desirable to use. To me, this means that in the years ahead my generation and younger ones will be more dependent on technology and lose the ability to communicate properly in the real world with actual people.

Interpersonal skills. This participant's statement introduced her fear that social media was detracting from face-to-face interpersonal skills. Interpersonal skills emerged as a subtheme within the theme, Self-Perception. When participants were queried about the impact of social media on their interpersonal skills, most participants reported that it detracted from their ability to feel comfortable and skilled at face-to-face interpersonal communication. There were a few participants, primarily those that identified as low users of social media, who believed that it had little to no impact on their interpersonal skill set and no one reported that it increased their face-to-face social skills.

Detracts from interpersonal skills. Within the subtheme, Interpersonal Skills, the factor Detracts from Interpersonal Skills emerged. The majority of participants reported that on-line social interaction had become so normal and commonplace that they literally had to make an effort to interact face-to-face. One participant shared, "It seems like these days you almost have to practice to be in a face-to-face conversation instead of using some other media to reach out." Others shared that they found it much easier to interact on-line, while interacting face-to-face was more challenging. One young woman disclosed:

I've just gotten so dependent on the computer and being able to say things through the computer. I feel myself being more awkward in situations and I feel like I can't really think of something to talk about right off the top of my head,

which is hard. [Facebook makes it] easier when I'm first meeting someone but it's even [with] my closest friends, I can't think of conversations because I have time to think about what I want to say over the computer. I don't think it's helping me at all.

Another interviewee agreed and shared that she feels like Facebook, and other forms of social media, provide her an easy out rather than being pushed to work through her social anxiety. She confessed, "I don't like to step outside my box. If I can look on Facebook…then I'm not gonna take that initiative to go talk to them. I think it definitely hinders my development of social skills." Interestingly, one participant, someone who reported high levels of loneliness, provided contradictory information within her own report; first saying that she did not believe that Facebook detracts from her social skills and then providing the following explanation:

Facebook provides an outlet so I don't have to be as social here; whereas if I didn't have Internet at all, I'd have to go out and make friends here. But since I don't have to do that, I can just get on Facebook and talk to my friends and people I already know.

By her own report, she acknowledges that she would have to interact face-to-face and make friends here if she did not have an outlet like Facebook, and yet simultaneously reveals her wishful thinking, believing that Facebook has no impact on her interpersonal skills.

Other participants focused on how they felt their use of social media increased their feelings of awkwardness or social anxiety, because they were out of practice, when it came to talking face-to-face. One participant explained, "I feel like that's what makes

us awkward is that we rely on [Facebook] too much, that we're not used to having face-to-face conversations enough, especially with people that we don't really know." Another participant agreed and elaborated on how social media desensitizes users to appropriate social behaviors, which makes people less successful face-to-face. He explained:

> I feel like a lot of people lose their interpersonal skills just 'cause on Facebook there aren't any real social norms or rules. You can kind of say what you want and nobody really cares. But in real life you can't really get away with that so I feel like that can have a negative effect on interpersonal skills.

> Participants had their own theories about why Facebook, and other computer-mediated communication, might detract from face-to-face interpersonal skills. One attributed it to fear, stating:

> They understand that there's more to interaction than just being on-line but they've gotten so accustomed to making these relationships and building these relationships on-line that they're afraid to put themselves out there as a person in the physical sense.

Fear emerged again in another participant's response, when one young woman observed that people, "get so used to being able to say what they want on the Internet and being able to kinda just put themselves out there, that they get too afraid to be in face-to-face interactions." Another interviewee felt that social media does not inherently impact interpersonal skills, but relying too heavily on it leaves people without face-to-face practice, "'cause then you're not used to actually speaking to someone and having a direct cause and effect kind of conversation instead of a think/respond kind of thing."

No impact on interpersonal skills. Within the subtheme, Interpersonal Skills, the factor, No Impact On Interpersonal Skills, emerged although not nearly as strong as Detracts from Interpersonal Skills. Only a few participants shared that they "don't think [Facebook] has really any impact," positive or negative, on their face-to-face interpersonal skills. Some attributed that to managing the amount of time they spent on-line, which reduced the possibility of social media having any impact on interpersonal skills. For instance, one participant shared, "Personally, it's hasn't become a hindrance to interpersonal skills, probably mainly because I don't try and use Facebook to make relationships or to glue relationships together. It's more of a helping hand." Another participant concurred, saying that she is, "pretty much controlling [her] Facebook," and she is successful at managing any consequences of her use.

Interestingly, a couple participants stated while they believed it did not impact their social skills, they did see it impacting others. For instance, one interviewee reported:

> I don't know about me personally but maybe for other people it takes away from them. I can't imagine it would really help unless it's just the initial getting to know someone and then you go meet them so it enhances in that way. But as far as your actual skills of talking to people, I don't see how it would really help. I don't think I use it enough personally to have that bias.

Agreement can be heard in this participant's response, "I think it can impact other people. It's definitely used more and more and people just feel comfortable on it and then they…I don't know. I don't feel it does really impact me but other people it can." These participants' responses could reflect optimistic bias effect, which is a bias that causes

people to believe that they are less at risk of experiencing a negative consequence in comparison to others (Kim & Davis, 2009).

Theme: Awareness of Others

The second theme to develop within the broad category, Perceptions of Others and Self, is Awareness of Others. While the first theme focused on self-perceptions or even self-awareness, this theme focused on participants' awareness – defined as their understanding of, recognition of, and mindfulness of others. Within the theme, Awareness of Others, two subthemes emerged that both represented a decreased awareness of others, the first, Deindividuation and the second, Callousness. Both subthemes and their underlying factors are presented in this section.

Deindividuation. The first subtheme arising within the theme, Awareness of Others, is Deindividuation. Deindividuation (Kabay, 1998; Zimbardo, 1969) refers to a diminished sense of individuality and consequently, a reduction in a sense of personal responsibility leading to behavior that is incongruent with one's personal standards of conduct. Deindividuation is strongly fostered by feelings of anonymity. Participants shared how they experienced feelings of anonymity, which resulted in deindividuation experiences while participating in computer-mediated communication. Participants began by discussing the tendency to go further on Facebook or say things they would not say face-to-face. They spontaneously theorized about the change in their on-line behaviors and described an altered sense of reality and feeling somewhat invisible or anonymous on-line.

Go further on-line. The first factor to emerge within Deindividuation pertained to participants' observing that they, themselves, and as others go further on-line than they

would in real life. All participants observed, "Most people would never say some of the things they put on Facebook." They offered this observation in different ways, saying things such as, "I definitely think that people say things on-line that they wouldn't say in person," or "Kids definitely will say a lot more things over a computer screen than they would face-to-face." Others echoed similar perspectives, stating, "When you're working through e-mail or over the computer it's a lot easier to be more ambitious and say things that you wouldn't normally say in real life" or "I think a lot of people probably say a lot of stuff that they wouldn't say face-to-face."

    Increase in confidence. A cluster of nodes, Increase in Confidence, emerged within the factor, Go Further On-Line. Interestingly, many participants connected the tendency to say more on-line with a false increase in confidence that comes from having a computer-mediated interaction. For instance, one participant shared:

> [Facebook is] making us think that we're more mature than we are because we
> can speak our mind and tell people how we really feel. That's not the truth,
> because I can say something on-line but when it comes to actually confronting
> somebody, I wouldn't do it.

Another interviewee echoed a similar observation in her statement:

> I think that people know that other people see [what they post] and they like that.
> They like that other people can see them being "brave" in quotations. I think they
> get a little high from that and they hit the enter button and [think], "I'm a tough
> guy" but really when it comes down to it in real life they wouldn't do that.

On-line courage was a frequently mentioned factor in going further on-line. Participants called the false sense of confidence that occurs in computer-mediated communication,

"on-line muscles." A last participant shared, "It's funny how some people grow courage

behind the computer screen, but you know that in real life they never would."

Accountability. A second factor emerging within the Deindividuation subtheme,

was change in the experience of Accountability for one's words and actions. One

interviewee disclosed some confusion over on-line courage, stating that knowing the

identity of Facebook users should make them still feel accountable for their words. She

shared, "Some people would feel like on the Internet they could say something and they

think it's not the same as saying it to someone face-to-face, which doesn't really make

sense because it's still you saying it and it's not anonymous." Others resonated with her

confusion, stating that they see others operate on-line under the illusion that they can do

or say whatever they want without suffering any consequences. For instance, one

participant expressed, "it's the illusion that there's no consequence for what they're

saying. I think there's this idea that if you do it on-line there's not as much of an effect

or that you're not going to get this intense feedback."

Some participants believed that the realness of their social media interactions is

affected by the permanence of creating a written record as well as others ability to see

and respond to what they have posted. One participant shared, "I think [Facebook posts

are] real 'cause they still see it and you can't really erase it. It's going to be there forever."

While another commented, "I feel like you know other people can see it and I feel like if

you know other people can see it, then you know that you could possibly be talking to

somebody else because they can answer you." Another interviewee elaborated:

> However, I mean if it is something that you wouldn't want to say face-to-face and
>
> you do say on Facebook or Twitter or social media, I feel like it's really kind of a

misconception that you're not gonna get any ramifications for what you say

'cause people are going to see it and they're going to think what they think. And

whether or not they say it right to your face or whether or not they talk about it

behind your back, there are going to be ramifications for what you put on the

Internet.

Another offered her theory, attributing a change in sense of accountability to not having

to witness the reactions of another person, she explained, "I think we're all kind of

chickens on the inside to be confrontational in person and it's easier without seeing the

person's face to say what you feel like you should say instead of doing it face-to-face."

Decreased awareness of the other person. The previous participant's comment

touches on a common theory amongst participants about changes in a sense of

Accountability. They related not witnessing the face-to-face reaction of another to a

Decreased Awareness of the Other Person, a third factor within the subtheme

Deindividuation. One young man, talking about people's tendency to be more open with

opinions on-line, revealed, "I feel like they have more security because it's not face-to-

face so you wouldn't see everybody's reaction towards what you're saying." Another

interviewee agreed, "The fact that you're not right there in front of them and you don't

have to see their reactions probably, and get either intimidated or if they're sad, you look

sad for them, that kind of reaction." This interviewee actually hinted at the brain's mirror

neuron reaction, indicating that it would be difficult not to respond with an empathetic

mirroring if individuals were engaging in face-to-face interactions. The next participant

referenced the same topic of empathetic mirroring:

[Being on-line] gives you that buffer that you wouldn't [have] when face-to-face. Because I think humans don't really…if you're face-to-face with someone and you make someone cry. I mean you can obviously still be nasty and mean but I think you would ease up a little, but through Facebook it's a lot easier.

Other interviewees, in their responses, indicated that when you do not see someone face-to-face, it is easier to forget the humanity of the other person or to reduce the interpersonal interaction to "just words." For instance, one participant explained that on-line, "You just see a picture of this person…you can be quick to judge and just be mean, without actually taking into account the type of person that the person is." Another interviewee elaborated, "Over the computer you don't really have any interaction with another person. You just kind of have the words that are coming back. But face-to-face, when you're with someone you can see their body language and their facial expressions."

Altered sense of reality. Emerging under the factor Decreased Awareness of the Other Person, was a cluster of nodes pertaining to an Altered Sense of Reality. The discrepancy, alluded to by the participant who was confused by the fact that on-line interactions are not anonymous, was related to an altered sense of reality that many participants experience when participating in social media. Cognitively, young adults are aware that Facebook is a venue for interacting with many people simultaneously, a way to "talk to everyone," and yet time after time, they describe losing track of their audience and feeling as though they are actually talking to no one. It is impossible to describe this phenomenon collectively, as they each have such unique expressions of their experiences, as seen in the following statements:

- You can spill anything on Facebook and you're emotionally detached from that because, *it's just typing and it's like you're typing to nothing, when really you're typing to everyone. But there's almost like a blanket over that…*

- You're just going by *words on the screen.*

- I guess you feel like you're talking to someone but you're really not. *You're talking to the computer, basically.*

- It almost doesn't even seem real when you're *typing it in a computer.* It's just like you're thinking about it…

- The lack of closeness with another person can turn the interaction into a one-sided, *I am talking to a screen.*

- But with Twitter I feel more [like I am] talking to nothing…*I am talking to self.*

- Because you're not looking at the person, you don't really see the effect of your words and *it's just you and your words…you and the computer screen.*

- It's just a picture of them, if their profile picture is a picture of them, and for me *the focus is really the words. It's not the person*, sometimes.

- Even when you write stuff out, *you just type it and you hit 'enter.'* It's almost like you lose your filter.

When asked what happens internally that allows social media users to forget or lose track of their intended reader, therefore creating an altered sense of reality for the user, participants almost without fail responded with, "It's because you're behind a computer," or even more revealing, it's because the user is able to, "Hide behind the screen."

Concept of Audience. A final cluster of nodes under Decreased Awareness of the Other Person was a cluster of nodes pertaining to Concept of Audience. Oddly, when participants were asked if they think about the recipient of their communication, many participants shared that they do have an intended audience, saying, "I always think about who's going to read it. I've had that urge to post stuff sometimes but I don't because I know I'll regret it later." Another interviewee elaborated:

> I feel like whatever you say, regardless of the medium, someone's gonna see it. It's never gonna just poof, just pop up in the air. But I feel like more often than not I try to be conscious of what I say and post and things 'cause I know someone's gonna see it.

Adding to the discussion about concept of audience, one young woman provides a clue to why on-line interactions lose grounding in reality. She said:

> The people I'm friends with on Facebook, they're very active and proactive. We're all proactive about keeping in touch so if I ranted or I said, I'm really upset about something, I don't feel like it's just going into space. Within 20 minutes somebody will say, "What's wrong?" or "I agree." There's always somebody, at least for me, that's going to respond or have something to say.

> Interestingly, in the process of interacting with so many people simultaneously, some users lose sight of their intended audience. One participant provided a particularly interesting observation when she stated, "'cause people become interchangeable when you get so many new friends."

> The prospect of recipients becoming interchangeable seems to be highly related to *receiving a response* – some participants revealed that they do not pay much attention to

other people's posts on Facebook, so they anticipate that others will scroll past their own as well. One interviewee anticipated, "Nobody's going to pay attention to what I'm saying." While another young woman described, "You know other people can see it but it's almost like how you just scroll through your newsfeed and see people's statuses just in passing and you don't really think…" Another interviewee had a similar view of how posts disappear on Facebook:

> I kind of understand the idea that you're just kinda putting it out and it drifts off into space, especially on Twitter 'cause that often happens. Somebody will scroll down. Oh, he said this and it's just gone. If it doesn't resonate with this specific group of people that got to read it then it is gone unless you bring it up in a conversation.

Another participant explained how she thinks this might happen to her:

> If you see your status but then someone else's above you or below you has comments on it and everything, then you know no one's read mine but they've seen those. I guess sometimes that kind of makes you feel [like] they care about what they say but not what I say.

One participant explained, "I know a lot of people [rant] on Facebook and then lots of times they end up getting more feedback than they planned on getting or they get back nothing and they planned on getting something back." Another interviewee elaborated on this same observation, stating that an on-line post is always done in hopes that one will get a reaction or reply from someone else. She said, "You're putting it out there for a reason, I feel like subconsciously hoping either one of your friends will say something to you about it or like talk to you about it." A last observation explained how

Facebook users can imagine that their posts get "lost on-line," saying, "I guess you would feel good about it if someone commented on it or 'liked' it but if not, it does kind of feel like you're just writing it out there. No one sees it."

Without a response, many participants indicated that it makes them second-guess their original post or feeds that sense of invisibility on-line. For instance, one participant shared, "'Cause when you tweet something and you don't get a response…like a 'like' or a favorite, it kinda makes you feel like maybe I shouldn't have posted that or maybe I should have, but who really cares?" Another interviewee elaborated:

I know I've made a few Facebook statuses and obviously I'd rather somebody 'like' it than nobody 'like' it just because if nobody 'likes' it I feel people would think I'm weird. Maybe they think I'm weird…maybe they think what I said is weird….

The lack of a response creates a higher sense of being invisible and therefore creates a stronger sense of anonymity. For instance, one participant shared how she imagines possible rejection when she posts something and it takes a long time to get a response. She shared, "Um, I guess that if someone takes a long time to respond to something, sometimes it's like, oh my gosh, I just like said it and now there won't be a response." Another participant offered his own theory, stating, "I think maybe there's some sort of psychology behind it…having some sort of need to actually say something and have the knowledge that someone's hearing it." According to his theory, having a response from others makes on-line interactions feel more grounded in reality primarily because the sender knows their thoughts and feelings have been received. If, however, users do not receive any response, then they report sometimes feeling as if their on-line

interactions vanished into thin air.

Other participants elaborated on how not receiving a response to a post creates a perception of invisibility. For instance, one young woman stated, "Yeah, sometimes when I do tweet at people and you don't get a response back, [I feel] I'm just talking to the computer, almost in that sense." Another concurred, stating, "If someone doesn't answer you back…I definitely do feel disconnected and that you're just talking to nothing." Sadly, one participant summed it up with the statement, "They have to reply or else you think that nobody cares."

The previous summary statement indicated a sense of being uncared for, which the following participant connected to real life:

I know of kids at my high school who didn't have that many friends who would just post a bunch of stuff about their feelings and no one would comment on it on Facebook, or reply to it. I think that also goes back to their life as a whole, outside of social media.

The realization that somehow one's social success on Facebook is in fact a mirror of their real life social success creates pressure to show others that they are well-liked on Facebook. For instance, one interviewee described how her friends prompt her to like their posts, she commented, "I know if one of my friends puts a new photo on Facebook, she'll be like, "Oh, 'like' it." Another participant agreed, making a similar statement about her own posts, "You just want someone to 'like' it so it looks better so you feel better. I don't really know why, but I mean I like it. I feel good when people 'like' my photo on Facebook."

Callousness. The last theme within the data, Perceptions of Others and Self, relates to callousness. This theme seemed to build right out of participants' experience of anonymity and deindividuation on-line. Because they began to lose track of the real humanity of others as seen in their tendency to do or say things on-line that they would never do in real life, they also seemed to feel a reduction in empathetic response.

When discussing on-line posts, participants were quite callous in their responses. When talking about sad or depressing posts on Facebook, participants responded by saying things such as, "I never, never ask what's wrong…I'm not even going to give you the attention, because I don't do pity parties," or flatly, "I don't really care." They saw sad posts on Facebook as "just whiny," and if they said something that incited rage in another person they responded, "I don't care how many angry characters you type back to me." It was easy to see the technological distance, as the participant described being the recipient of angry "characters" – not even words and definitely not feelings experienced by a real person.

Based on the results in the previous section, participants are well aware that a basic desire or need motivating on-line social interactions is to have others respond to their posts. Ironically, when participant's disliked or felt annoyed by another on Facebook, they often passively express their disapproval by withholding the very thing that most people are hoping for, a response. It was common for participants to say that when they see a post that they disapprove of, they respond by ignoring it or in the unique language of young adult users, they "keep scrolling."

One participant described her response to overly emotional posts, saying if a Facebook friend were to, "put up like song lyrics about how much they love their

boyfriend. I'm just like, come on, let's scroll. 'Cause I don't have that deep interest in her life." Another gave a similar response, saying, "So I may glance at the post but I'm most likely just gonna keep scrolling. Stuff like, "I love my boyfriend so much," five times an hour, I usually scroll past." Commonly, participants would say "Those kinds of things, a little bit insignificant and not necessarily directly pertaining to my relationship with the person, I'm more likely to skip over," or "Probably just ignore it, just scroll right on down past it."

Interestingly, however, participants also had harsher, more callous responses behind their tendency to scroll past posts they found to be annoying or inappropriate for Facebook.   For instance, one participant described her response to annoying posts, "When I see [an annoying] status, it's just like why are you here? Go away. You're not worth my newsfeed." Another said, "I won't put my input in. I won't 'like' it. I won't comment because I didn't really read it 'cause I don't really care." Still another commented, "If it's someone I don't know, I usually won't waste my time…bother with them." One young man commented:

All the time I'll see people making statuses…I don't mean to sound sexist or anything but a lot of times it's girls who make these statuses like, "Oh, I'll never having a boyfriend. Why am I so ugly?" Just a generic thing, I'm like, shut up.

When asked the rationale behind participant's callous response to posts they do not like, for any number of reasons, they are too trivial, too emotional, or too frequent, one participant theorized, "you don't want your newsfeed full of depressing, angry comments all the time, especially if it has to do with personal things." Again, this circles back to earlier data regarding the unwritten rule that Facebook is to be superficial, happy and

entertaining. If social media users break the rule then others feel justified in engaging in on-line social shunning.

Interestingly, in the earlier data regarding deindividuation, it was revealed that people were able to lose sight of the humanity of others and begin to see them as objects, thus allowing them to be less than kind. However, people with whom users are friends on and off-line, in other words, real life friends, do receive empathetic responses to their on-line posts, regardless of the content. One participant shared, "If it's my best friend who posts something like, "What would I do without my best friends?" I'd be like, "Are you okay? What happened?" Another interviewee agreed and elaborated, "If it were a close friend I'd probably be more apt to try to figure out what the motive behind it is, just because I feel like I could help them more, understand them more." Another young woman shared how she would respond if one of her good friends posted a sad comment or status, saying, "It depends. If it's like one of my friends or something, I normally say something like, "Be happy" or something like that or "Call me" or something." Interestingly, although these responses are more empathetic than their previous statements of "I don't care," they are also examples of the superficial nature of on-line empathetic engagement.

Many participants found themselves withholding their empathy because they were finding themselves in the position of judging genuine distress versus attention seeking. They seemed to find themselves more able to identify genuine distress when the person was someone with whom they were real life friends. For instance, a young man offered the following example:

I feel like a lot of times it goes back to the person who posted the status. If they're just a more mature person, I guess, in my mind anyway. I'll use my cousin for example. She's in the [blank] school at [blank] University. If she just made a status, like, "Oh, I'm having such a rough week, all these exams and all these labs" and all this stuff. Then I might comment and just be like, "Good luck. You can get through it." Just because I know that she's not trying to get people to say anything. It's just a way to blow off steam.

De-friending. A final factor emerging within the subtheme, Callousness, related to the procedures for De-friending on Facebook. De-friending is somewhat controversial among Facebook users. Some say that they never de-friend while others are quick to de-friend anyone who posts too much or is too annoying on Facebook. For instance, one participant said, "Quite frankly I don't care what they're doing so I just delete…delete them as friends." Another concurred, stating, "I don't want to be friends with them anymore." An important element to de-friending, however, is the fact that there is no notification that a person has been de-friended, providing another element of anonymity, which creates social distance. When asked if de-friending could possibly hurt another person, participants shared that de-friending is just a logical process. One participant explained, "If you're de-friending someone it's because you're no longer friends with them." Another added, "You know you're never going to see them again, talk to them again, so you just unfriend them." If, however, a person was hurt by the de-friending process, there was another unwritten rule that it should go unaddressed. One participant said, "I think if somebody asked me [why he or she was de-friended] on Facebook I think I'd be, 'why am I hearing your feelings about it,' it's Facebook?" If someone got hurt in

the de-friending process then he or she obviously, "took it too personally that I de-friended you." Nowhere else, other than in the world of social media, can we click a button and rid ourselves of not just an annoyance, but a person, and never see the pain of our actions in someone else's eyes.

The results in this section focused on the exploration of the influence of social media use on the broad category, perceptions of self and others. Within this category, two themes emerged; Self-Perception, which pertained primarily to diminished face-to-face Interpersonal Skills, and Awareness of Others, which was subdivided into experiences of Deindividuation and Callousness. Within the subtheme, Deindividuation, participants indicated that social media users express things on-line that they would never say face-to-face, which they ultimately connected to an illusory sense of anonymity which altered their sense of accountability for their words. The final subtheme, Callousness, captured data related to a reduction in empathetic response to the posts of others.

Summary of Results

This chapter presented the results of the data analysis for the three stated research questions; it was divided into sections describing the findings for each of the research questions. Research question one primarily captured data regarding preference for on-line social interaction through quantitative and qualitative data collection. The quantitative data suggested that the participant sample had few indicators of preference for on-line social interaction or tendency to tendency to engage in problematic use of the Internet meaning that they were likely to use social media to supplement rather than supplant their face-to-face social interactions. However, the qualitative data revealed a

subtle distinction between an expressed preference for face-to-face social interactions and a tacit preference for on-line social interactions. Most all participants directly expressed preference for face-to-face social interactions, however, through their discussion of social media revealed that they spent a vast amount of time on-line and feel compelled to be on-line despite attempts to manage use. Most revealing, participants shared that they often choose to engage in on-line social interactions even when face-to-face options were available sharing that social media allowed them to avoid the messy complexities of real life interactions.

Research question two primarily captured data regarding qualities of and context for the experience of intimacy through quantitative and qualitative inquiry. The quantitative data did find a small statistically significant correlation indicating that the subjective experience of loneliness (identified as an absence of intimacy) was related to both use of Facebook and preference for on-line social interactions. Within the qualitative data, participants identified six subthemes defining the qualities of intimate relationships – long history, shared experiences, privacy and intimate disclosures, comfort, vulnerability, and familiarity. When discussing the context of intimate encounters, participants felt that social media allows for connection with friends with whom intimacy is already established, however, it is limited in the ability to share new experiences, express face-to-face vulnerability, and to develop genuine interpersonal familiarity which limits the development of intimacy within new relationships.

Finally, research question three, was explored entirely through qualitative inquiry and explored the influence of embodied human interactions on the perceptions of self and others. It resulted in two broad categories of data, the first was how young adults

specifically and uniquely interact with social media and the second was the impact of those interactions on perceptions of self and others. Within the first category, specialized use, emerged three themes – expressed motivation for social media use, unwritten rules guiding social media use, and tacit motivation for social media use. Participants recited their expressed motivations for using social media as to keep in touch, to keep up-to-date, easy, and convenient. Using social media to keep in touch was an interpersonally driven motive expressed as a desire to maintain relationships in contrast to the motivation to stay informed, which was expressed as the desire to keep up-to-date. Perceived benefits of social media included easy and convenient ways to interact with others, the last of the expressed motivations. Unwritten rules guiding social media use captured the organically developed and covertly taught guidelines that direct use of social media, including pressure to keep Facebook entertaining by posting only happy, funny, and superficial posts. These posts emerged in opposition to unacceptable posts, which were defined as too frequent, too trivial, or too emotional posts. Participants expressed their displeasure by shunning those who break the rules by withholding responses or even de-friending. A final subtheme within the theme, unwritten rules was specialized use of punctuation, which referred to how users uniquely use punctuation to enhance the limited expression of nonverbal information on-line. The final theme, tacit motivation for social media use emerged in contrast to expressed motivation and was interpersonally revealing. This theme was conceptualized as a way for social media users to psychologically protect themselves. It resulted in two subthemes, Momus technology and control. Momus technology related to using social media to covertly learn about others in an effort to approach others in a manner that is likely to be well received and result in a successful

interpersonal interaction. Control captured data related to an increased sense of control over interpersonal interactions, strategic management of self-presentation, and ability to manage difficult feelings such as feelings of awkwardness, aloneness, and fear of rejection.

The second broad category, perceptions of self and others, resulted in two final emergent themes, self-perception and awareness of others. Self-perception pertained primarily to diminished face-to-face interpersonal skills. Participants described social media as detrimental to interpersonal skills as it leaves them out of practice. The final theme captured a decreased awareness of others as experienced through deindividuation and callousness. Within the subtheme, deindividuation, participants indicated that social media users express things on-line that they would never say face-to-face, which they connected to an illusory sense of anonymity which altered their sense of accountability for their words. The final subtheme, callousness, captured data related to a reduction in empathetic response to the posts of others. Callous responses ranged from withholding responses to de-friending. Interestingly, even their conceptualization of de-friending was callous, believing that it should not be taken personally, instead being de-friended is a logical choice with no interpersonal consequences. Within the following chapter, the highlights of the results will be discussed including implications for practice and suggestions for future research.

CHAPTER V

Discussion

In the preceding chapters, prior computer-mediated communication literature was presented, the study's methodology and data collection procedures were reported, and the data and analysis were described. This chapter consists of a brief summary of the study, discussion of the findings, implications for practice, recommendations for future research, and conclusions.

Summary of the Study

The purpose of this study was to examine young adults' use of social media, qualities of their interpersonal relationships, and the intersection of the two. This primarily qualitative research study set out to investigate the qualities of relationships under the theoretical umbrellas of attachment, existentialism, and neuroscience. In particular, this grounded theory study examined how relationships might differ in on-line and face-to-face interactions, and answered the broad question, "What is the impact of increased engagement with others through computer-mediated communication, which involves less sharing of physical space and real time, on one's perception of others and self?" Using both quantitative and qualitative methodology, data was collected and analyzed. Out of the qualitative data emerged eight themes: Expressed Preference for Face-to-Face Social Interactions, Tacit Preference for On-line Social Interactions, Qualities of Intimacy, Expressed Motivations for Social Media Use, Unwritten Rules Guiding Social Media Use, Tacit Motivations for Social Media Use, Self Perceptions, and Awareness of Others.

Discussion of the Findings

This section discusses the implications of the findings for each of the three research questions. Quantitative findings, as well as qualitative themes, are discussed in the same order they were presented within the results, although some themes are discussed in more detail due to the importance of the findings.

Research Question One

How do young adult users of computer-mediated communication differentiate between use of and preference for computer-mediated communication in an effort to understand how computer-mediated communication might supplant rather than supplement face-to-face interactions?

Discussion of quantitative results. The primary goal of the first research question was to explore young adult users' preference for social media over face-to-face interactions in an effort to differentiate between normal and problematic social media use. Extrapolating from the work on problematic Internet use (Caplan 2002; Caplan, 2003; Caplan & High, 2006; Davis, 2001), the current study defined problematic social media use as a multidimensional problem consisting of both cognitive and behavioral patterns that result in negative consequences for the user. To that end, the quantitative findings indicated a positive correlation between Preference for On-line Social Interaction and Solitary Activities, Use of Facebook, and Compulsive Use of the Internet. Additionally, Preference for On-line Social Interaction had a significant negative correlation with Social Activities and Facebook Friends Regularly Interact. In other words, as one's preference for on-line social interaction increased, the person was likely to use Facebook more often, to engage in more compulsive use of the Internet, and to interact less with

others in face-to-face encounters.   Within this study, preference for on-line social interaction is an important factor in the development of problematic social media use, as it meets the definition of cognitive (compulsive use) and behavioral (use of Facebook) patterns with negative consequences (reduction in off-line interpersonal interactions) for the user. Consequently, preference for on-line social interactions may result in users, who supplant, rather than supplement, their off-line social interactions. All of the quantitative data are confirmed in the qualitative data, providing a holistic understanding of social media use by young adults.

Furthermore, Use of Facebook had a significant positive correlation with Social Activities, Facebook Friends Never Met, and Compulsive Use of the Internet. Higher users of Facebook have more Facebook friends whom they have never met and are more likely to use the Internet compulsively; these results are congruent with the previous findings related to preference for on-line social interaction (which is also significantly correlated with use of Facebook). However, these results also revealed that higher users of Facebook were more socially active overall, which seems to be incongruent with other results and contradicts the relationship between preference for on-line social interaction and social activities. This discrepancy may be explained by the qualitative data in which some participants indicated that they use Facebook for event planning and to make arrangements for off-line social activities. This supposition is confirmed in earlier research (Ellison et al., 2007; Howard et al., 2001), which found that Internet use was positively associated with face-to-face social activity.

The discrepancy in results may speak to the subtle difference between use of and preference for on-line social interaction, in that higher users are overall more socially

active, while those who prefer on-line social interactions are more likely to engage in solitary activities. The motivation behind the time spent on-line is what differentiates between normal and problematic social media use. This conclusion is congruent with Kraut and colleagues (2002) finding that socially engaged and socially disengaged people use the Internet in different ways. Kim and Davis (2009) drew similar conclusions, stating that it is important to distinguish between motivations for using the Internet in order to get a better understanding of problematic use. In other words, it is less important to examine whether or not individuals engage in on-line interactions, and more important to examine how they engage, the quality of their relationships, and what they give up to spend time on-line.

Discussion of qualitative results. Young adults expressed preference for face-to-face interactions for interpersonal communication and yet spend extraordinary amounts of time using some form of computer-mediated communication. In fact, they often even choose to have on-line interactions when face-to-face interactions are available, resulting in a tacit preference for on-line social interactions. When exploring young adults' preferences for interpersonal communication, participants expounded on perceived challenges of on-line social interaction, including time spent, compulsive use, and choosing on-line interactions over face-to-face interactions.

Even average users spend a large portion of every day using social media. In addition to the actual hours spent, participants shared that they engage in frequent checking, feel compelled to constantly check for updates, and access the Facebook website multiple times every day. Additionally, young adults revealed attributes associated with addiction, including feeling compelled to use, attempts to manage use,

and experiencing negative consequences. Taken in combination, the qualitative data provide evidence of problematic social media use. When these data were triangulated with previous research (Caplan 2002; Caplan, 2003; Caplan & High, 2006; Davis, 2001) they were consistent with cognitive and behavioral patterns involved in the development of problematic social media use.

The ability to make meaningful interpersonal connections and engage in authentic human interactions is of profound importance to our psychological health, however, young adults repeatedly choose social media connections over face-to-face interpersonal interactions. Nevertheless, one could still argue that meaningful connections can occur on-line. The context of meaningful connections will be discussed in more detail in the next section, but suffice it to say that while on-line interactions can be meaningful, they are less authentic and only one-dimensional.

Interpersonal connections mediated by social media allow users to avoid the difficulties of real people and face-to-face relationships. Turkle (2010) shared concerns that mediated relationships can be used to serve where people fail – relationships with real people are often messy, frustrating, and complex. On-line relationships, however, can provide an opportunity for a less risky interaction requiring less giving of oneself – there is no need to compromise one's needs or delay gratification since friends are always available on Facebook and when finished with them, one simply clicks off.

Turkle (2010) expressed concerned that mediated relationships reduce the complexities of relationship and the reduction begins to be viewed as normal. She explained:

As infants, we see the world in parts. There is the good – the things that feed and nourish us. There is the bad – the things that frustrate or deny us. As children mature, they come to see the world in more complex ways, realizing, for example, that beyond black and white, there are shades of gray. The same mother who feeds us may sometimes have no milk. Over time, we transform a collection of parts into a comprehension of wholes. *With this integration, we learn to tolerate disappointment and ambiguity. And we learn to sustain realistic relationships, one must accept others in their complexity* [emphasis added] (p. 55).

Furthermore, she explained how the reduction in human complexities can lead to the development of narcissistic personality – when people simplify others into objects that are perfectly in sync with only what one wants or needs from them. This is the opposite of healthy relationship development and reduces relationships into one-dimensional interactions that only take into consideration the needs and wants of a single individual. It is not a far leap to see that choosing the simplified on-line version of an interpersonal interaction over the complicated and sometimes messy face-to-face interaction could lead to the development of narcissistic tendencies, an indication of unhealthy relational attachment and poor psychological development.

Turkle is not the only scholar who has made the connection between technology and narcissism. Mehdizadeh (2010) described social media sites, such as Facebook, as fertile ground for the development of narcissistic traits. Narcissism is defined:

As a pervasive pattern of grandiosity, need for admiration, and an exaggerated sense of self-importance. It is associated with positive self-views of agentic traits, including intelligence, physical attractiveness, and power. …The use of social

relationships is employed to regulate narcissistic esteem. However, narcissists do not focus on interpersonal intimacy, warmth, or other positive aspects of relational outcomes. Instead, they use relationships to appear popular and successful…seek[ing] out many superficial, empty relationships (p. 358).

In fact, the very operational guidelines of social media sites, such as Facebook, encourage orientation toward one's own self by publicly focusing on key aspects of one's self and embedding the self in a network of friends (McKenna & Siedman, 2006; Toma & Hancock, 2013). Manago, Taylor, and Greenfield (2013) posited that there is a relationship between narcissism, individualism, and technology – speculating that technology is the driving force for an increase in values of individualism. Performing for an audience and an inflated self-esteem are both elements of individualism and narcissism, and social networking fosters both. Twenge, Konrath, Foster, Campbell, and Bushman, (2008) reported a 30% increase in narcissistic traits in current college students over the previous generation. Perhaps the increase in narcissism is due, in part, to living in an entirely digital era, where interpersonal relationships have been distanced through technology. Sturm, Metz, & Oxford (in press) made the argument that technology serves as an object facilitating conversation while simultaneously creating distance between the communicators, leading to a decrease in empathy and in increase in narcissism, traits which appear in abundance within the current study's qualitative data.

van Manen and Adams (2009) posited that on-line writing is ultimately a lonely task between the writer, the screen, and the intended reader. The current study's researcher would argue that computer-mediated communication allows social media users to interact with other people only as reflections of their own selves. When

interacting on-line the user is able to construct the imagined reactions of the other through their own egocentric lens. Users may say they can, "hear another's voice in my head," or "imagine their face," but social media requires that every experience of another be first translated through one's own perceptions and transference. The intimacy that one feels on-line may actually be intimacy with one's own self; feeling moved by one's own writing (van Manen, 2010). Therefore, even the reflective aspects of on-line interactions are oriented toward self, potentially leading to an increase in narcissistic traits. Interestingly and perhaps most importantly, although research is able to look back and speculate on how interacting with others through technology has impacted current psychological development, it is of profound importance to recognize how social media may impact relational attachment within the current generation and between them and their offspring.

Research Question Two

Is there a difference in the quality of relationship in young adults' experience of on-line versus face-to-face interactions?

Discussion of quantitative results. The primary goal of the second research question was to explore the qualities of intimacy and the context of its experience. The study found that lonely people spend more time alone and prefer on-line social interaction. Interestingly, these results support the supposition in the early work of Caplan (2002; Caplan, 2003) that deficits in psychosocial well-being as indicated by subjective experiences such as loneliness and depression can lead to an increase in preference for on-line social interactions. As discussed in the previous section, those who prefer on-line social interactions are less socially active, which could lead to greater

loneliness, and result in a vicious cycle. This finding supports the previous hypothesis (Kim et al., 2009) that loneliness is both cause and effect of problematic Internet use. They hypothesized that individuals are motivated to use the Internet to relieve feelings of loneliness. However, increased consumption of the Internet results in further isolation and eventually further loneliness. Proposing a cyclical nature between psychosocial attributes and preference for on-line social interactions supports the rich-get-richer, or in this case the poor-get-poorer, hypothesis theorized by Kraut et al. (1998).

Interestingly, higher users of Facebook are less lonely. According to Russell et al. (2012) the feeling of loneliness can be distinguished from actually being alone, primarily based on the level of perceived satisfaction within interpersonal relationships, although this study would argue that they are related experiences. It is possible that social media use might serve as a mitigating factor, allowing someone, who is alone, to use Facebook to meet the need for interpersonal connection, which actually decreases the subjective experience of loneliness. Within this study, the qualitative data regarding loneliness suggests that that appearing alone or lonely may be as bad or even worse than actually being alone or feeling lonely, which social media could definitely mitigate by allowing even a lonely person to present as busy and popular on-line. Additionally, as Kalpidou et al. (2011) explained, emotional needs are not met as well on Facebook, because Facebook displaces time spent on emotionally gratifying relationships in favor of less close and meaningful on-line relationships.

Discussion of qualitative results. The qualitative results for the second research question indicated that young adult users of computer-mediated communication agree on the experience of intimacy within the confines of a meaningful relationship. They

defined the qualities of intimacy as long history and shared experiences, as well as privacy and intimate disclosures, comfort, vulnerability, and familiarity. However, while participants' definition of intimacy is reasonable, it lacked a qualitative depth. Perhaps the lack of depth is due to maturity level and relational experience or it could be the impact of having more mediated interactions than embodied experiences. The researcher was primarily motivated to explore this research question in an effort to understand if young adults experience a qualitative difference between a mediated experience and an embodied encounter, and further, would they view this difference as an essential loss. It is a bit like understanding the difference between sugar and a sugar substitute. Within the study, they were able to describe the experience of sweetness but it remains unclear to the researcher if they understood the difference between real sugar and a good substitute. Despite the attempt to capture the qualities of intimacy, the answer to this question remains a mystery.

Discussion of the qualitative results is considered through the lens of context. Interestingly, none of the qualities of intimacy were specifically identified as exclusively applicable to on-line social interactions; however, some were seen as more applicable than others. The quality of intimacy most closely related to on-line social interactions was long history. Users posited that a benefit of social media was the ability to keep in touch, which allows users to stay connected to friends with whom intimacy is already established – those with whom there is a long history of shared experience. Manago et al. (2012) reported that social networking sites, such as Facebook, might be used as a psychosocial adjustment tool. They posited that Facebook allows college students to maintain ties with high school friends, which may buffer them from emotional distress

and maladjustment due to concerns over losing those friends with whom intimacy has already been established. Although this is an explicit benefit, there is also a potential limitation in holding on to high school friendships rather than being motivated to make new friends representative of current developmental levels.

It is possible to experience feeling comfortable, another quality of intimacy, in both on-line and off-line contexts. On one hand, on-line interactions allow users to feel comfortable with themselves and the communication process – allowing them to stay within their social comfort zone. On the other hand, on-line interactions allow for less practice with face-to-face interactions leading to a stronger sense of social incompetence, which could be felt as a reduction in interpersonal comfort. Feeling comfortable can be a bit of a chameleon – changing according to the context. However, like a chameleon, on-line social interactions allow comfort to be experienced at only a surface level, while face-to-face interactions allow an opportunity to change at a deeper level, which often starts with some feelings of discomfort.

Several qualities of intimacy were specifically seen as inapplicable to on-line social interactions, including shared experiences, vulnerability, as well as private and intimate disclosures. Participants were quick to state that although social media is interactive, there is no experiential component allowing for shared experiences on-line, ultimately the biggest drawback for using social media in the creation of intimacy. Additionally, vulnerability was expressly limited to opening up while "looking someone in the eye," while on-line disclosures were viewed as easy rather than interpersonally risky, an important element of vulnerability. Interestingly, participants believed that it was risky to be vulnerable on-line because one does not really know what another is

doing while on-line or who else is in the room with the person on the other side of the screen. This was a surprising discrepancy in the data; participants indicated that they trusted others enough to tell them a secret but did not trust them to protect the secret by preventing another person from reading over their shoulder.

Although not explicitly stated, privacy and intimate disclosures, similar to vulnerability, are limited to face-to-face interaction for increased sincerity. However, when triangulated with previous research, a discrepancy emerges again, between what participants believe they should do and what they actually do. Participants indicated that face-to-face interactions enhance sincerity, but also allow that they find social media to be a tempting alternative to face-to-face disclosures. In a recent study by Manago et al. (2012) results indicated that many Facebook users make intimate disclosures through their Facebook status updates, which are broadcast to their entire network of friends. Therefore, self-disclosure, seen as a hallmark of intimacy (van Manen, 2010) has gone public. In the current study, participants agree that privacy and self-disclosure are qualities of intimacy and indicate that they should occur face-to-face for increased sincerity and authenticity, however differentiating between what they believe to be true and what they actually do is something that requires further investigation.

The most ambiguous quality of intimacy was familiarity. Participants strongly indicated that observing others on Facebook increased a sense of familiarity. The researcher would argue, however, that familiarity born out of observing others is a false familiarity. Knowing things about someone is different than a purposeful disclosure between two people. Further, postings on Facebook are general but can be read and perceived as specific to the viewer, hence creating feelings of familiarity. Consider that

observing others on Facebook is akin to looking through someone's medicine cabinet – one may learn another's private secrets but it is an unintentional revelation. However, gaining intimate knowledge about another, snooping through a medicine cabinet or combing through on-line posts, can foster feelings of familiarity, allowing for confusion between feeling familiar and actually being familiar.

On one hand, social media allows users to stay connected to friends with whom intimacy was previously established and there is already a long history of shared experiences. On the other hand, the ability to share new experiences, express face-to-face vulnerability and develop interpersonal familiarity seems to be limited in on-line interactions, which may impact the development of intimacy within new relationships. The date explored in this question supports earlier research by Ellison et al. (2007), which stated that Facebook contributed to both bridging and maintained social capital, especially with high school friends. Simultaneously, it supports theory posited by both Kraut et al. (1998) and Putnam (2000) that weak ties are replacing strong ties, meaning that using the Internet for social interaction substitutes poorer quality on-line relationships for deeper, richer off-line relationships, leading to a decrease in bonding social capital. Bonding social capital is the type of human connection that we understand to be of profound importance and to give these rich, embodied interactions up, or to even engage in less of them, could have an impact on our authentic human experience, leaving us struggling to connect.

Research Question Three

What is the impact of increased engagement with others through computer-mediated communication, which involves less sharing of physical space and real time, on one's perception of others and self?

The qualitative data for research question three resulted in two broad qualitative categories of data, specialized use of social media and the influence of social media use on perceptions of others and self. The first category explored how young adults specifically and uniquely engage in social media. Within this category, emerged three themes – expressed motivation for social media use, unwritten rules guiding social media use, and tacit motivation for social media use. The second category explored the impact of social media use on perceptions of others and self. Within this category, two themes emerged, changes in self-perception and changes in awareness of others. Each of the five qualitative themes will be discussed in this section.

Discussion of expressed motivation results. Working from the ground capturing young adults' expressed motivation for using social media resulted in different motives than previous research, which drew from the Uses and Gratifications theory. Previously researchers reported that users were motivated by pleasure, affection, inclusion, escape, relaxation, and control (Rubin et al., 1988). Additionally, researchers (Papacharissi & Rubin, 2000; Sun et al., 2008) found that these motives varied depending on certain psychological factors, such as communication anxiety and social confidence. The current study confirmed aspects of the previous research but not in their entirety. Expressed motivations for using social media were to keep in touch, to keep up-to-date and because it is easy and convenient. Keeping in touch was an interpersonally driven

motivation that related to maintaining a relationship and overlaps with previously identified factors such as affection and inclusion. To keep up-to-date was not interpersonally driven; instead it related to wanting to be informed or "in the know." This could be a motivation toward inclusion as well as control, a factor that emerges strongly in the current data under tacit motivations for social media use. Easy and convenient were unique motivations, likely unseen in earlier data due to the unique interactive aspects of social media. Additionally, although the participants valued the utility of having an easy and convenient way to interact, the researcher would argue that it also represents a safe, controlled social interaction that allows the user to psychologically protect him or herself, a result that is discussed in detail later in this chapter.

   Discussion of unwritten rules results. Participants indicated that there are countless unwritten rules governing the use of Facebook, which are organically developed and covertly taught through others' reactions to on-line behavior. Two sets of rules emerged that relate to opposite sides of the same coin, unwritten rules regarding acceptable and unacceptable on-line posting behavior. Participants indicated that Facebook is only for entertainment; therefore posts should be happy, fun, and superficial. Additionally, if one breaks this norm by posting "too much too often," seen as too frequent posts that are lengthy, trivial, or emotional then others are likely to ignore or even de-friend them. In other words, the norm on Facebook, according to study participants, is to present a one-dimensional version of one's self. A recent study by Qui, Lin, Leung, and Tov (2012) reported results that confirmed this norm. They reported that Facebook users are more likely to post positive emotions than they are to post negative

emotions which in turn leads to presenting better emotional well-being on-line than they do in real life. Toma and Hancock (2013) argued that a desire for self-affirmation underlies the unwritten posting rules. They proposed that social networking sites, such as Facebook allow users to highlight treasured personal characteristics in their on-line profile and publicly display their social connections with friends and family, in an effort to be affirmed by other Facebook users. While that research focuses on the implications for the Facebook user who is posting, an important consideration for future research would be the long-term impact on the Facebook viewer. Potentially, when Facebook users compare their real selves as they actually know and experience themselves, with the ideal self as others present it, they may feel worse about themselves in comparison. Qui et al. (2012) reported that being a long time user of Facebook resulted in the impression that others have better lives and well-being.

Specialized use of punctuation was the final rule to emerge within the theme, unwritten rules guiding social media use. Interestingly, participants indicated that their unique use of punctuation organically emerged within their use of social media. They contributed their use of specialized punctuation to a desire to compensate for the limited bandwidth of social media. This is congruent with Sproull and Kiesler's (1985) reduced social cues model, which theorized that social media limits the ability to convey social cues, such as physical environment and nonverbal behavior in the communication process. In response, young adults spontaneously developed a specialized use of punctuation to compensate for the reduction in social uses, and use punctuation to convey tone and facial expression in written text.

However, they find that even with their enhanced use of punctuation, written text still results in miscommunication, some of which is a result of gender and age differences. They explained that males and females use punctuation differently – that girls are more nuanced in their use and there is a strong generational difference in the use of specialized punctuation. Interestingly, their specialized use of punctuation promotes the one-dimensional presentation previously discussed. Without the visual cues of face-to-face interaction, individuals can manipulate their self-presentation more easily through their text cues (Qui et al., 2012). To paraphrase a participant, she noted that it as easier to insert an exclamation point in a text than it is to actually be happy in real life.

Discussion of tacit motivation results. The final theme to emerge within the data pertaining to young adults' specialized use of Facebook was tacit motivation for use of social media. Much like the discussion around preference, participants were able to quickly articulate their expressed motivations for using social media but their tacit motivations were disclosed through discussion of passive engagement and control, eventually revealing that young adults are tacitly motivated to use social media in an effort to psychologically protect themselves. They psychologically protect themselves in two ways – they observe others on Facebook to learn about them and they use Facebook to have more control over their self-presentation.

Facebook is a Momus technology, meaning that it allows individuals to be privy to the private thoughts and experiences of another; Facebook provides a window into another's thoughts and feelings (van Manen, 2010). The benefits of a Momus technology are two-fold, first there is no interpersonal effort required to become someone's confidant – no need to build rapport to learn someone's secrets, instead one can simply look

through the other's pictures and previous wall posts. Second, there is a reduction in interpersonal risk as Facebook allows users to gather information that assists them in approaching others, armed with intimate knowledge that increases the likelihood that they will be interpersonally successful. Young adults learn about others primarily through Facebook stalking, an intense version of passively observing others, a common Facebook behavior.

Ironically, although the intended use of Facebook is to create and maintain interpersonal connections, many participants stated that they spend a significant portion of their time passively observing others while engaging in little to no active interpersonal interaction. Observing others relates to the expressed motivation of using Facebook to keep up-to-date, an on-line opportunity for controlled intimacy and companionship without demands (Morahan-Martin & Schumacher, 2000). Interestingly, just knowing things about another person often seemed to suffice for having a relationship with them. van Manen (2010) described this phenomenon of feeling in touch while maintaining a technological distance as a "virtual experience of present absence" (p. 1027). He described proximity through written text as a distant intimacy that can overcome physical proximity but does not bring people intimately together. Instead, continuous social media updates allow a person to know what another person is doing in a way that feels intimate, or as the current study posits, feels familiar, as if two people have spent all their time together. However, feeling intimate is not the same as being intimate, nor is feeling familiar the same as being familiar and social media makes it easy to confuse the two.

Additionally, social media allows for increased control over one's self-presentation and management of difficult feelings. Young adults indicate that they prefer

using social media because they have more time to think over responses, it is acceptable to take a break on-line, and they have more ability to censor their thoughts. Therefore, on-line interactions provide more control over what they say and how they say it. This confirmed an earlier grounded theory study by Madell and Muncer (2007) exploring motives of social media users. The primary motive to emerge within their results was a desire to have more control over social interactions. They reported additional overlaps with this study's findings, stating that text-driven interactions allow the ability to see if others are available for communication, the ability to leave gaps, or take a break in conversation, the ability to conceal the truth, the management of emotional interactions, and the use of emoticons, or specialized punctuation, to indicate meaning within text.

The current research study confirmed research conducted by Toma and Hancock (2013) who stated that technology affords users the ability to select and edit their statements and take unlimited time to compose messages, allowing users to craft optimized versions of themselves on-line. Kramer and Winter (2008) reported that users of social networking sites have more control over their self-presentation than they do in face-to-face situations, making it an ideal setting for impression management. Impression management (Hogan, 2012) can be seen as "the selective disclosure of personal details designed to present an idealized self" (p. 379). On-line, users have the opportunity to strategically present themselves in the most socially desirable self-image. The absence of social cues restricts the information to just what the on-line user wants to communicate (Papacharissi, 2002). Users can decide what emotions to express in status updates, what photos convey their best image, and which part of their social lives to disclose (Qui et al., 2012). Previous studies confirm this study's findings that social

media users report positive emotions, upload the most physically attractive photos, and portray an active social image in their on-line presentations (Buffardi & Campbell, 2008; Kramer & Winter, 2008; Mehdizadeh, 2010).

Furthermore, an important aspect of presenting an ideal presentation on-line is embedding one's self within a social network of friends and family; interestingly, even one's friend network is subject to editability (Toma & Hancock, 2013). For instance, social media users consider friendship links as additional identity markers that reflect on the profile owner (boyd & Ellison, 2008). Therefore, impression management is a consideration when choosing particular friends. Furthermore, while users want to make their best impressions, they want their on-line friends to do so as well. Users block or delete objectionable posts made by friends or even terminate friendships that reflect poorly on them (Toma & Hancock, 2013).

When considering the impact of having the ability to construct an ideal self-presentation on-line, the possibility of increased narcissism appears again in the research. Mehdizadeh (2010) found that Facebook provides various outlets for self-promotion as well as the opportunity to maintain large numbers of shallow relationships. He found a positive correlation between narcissism and use of Facebook, as indicated by time spent on-line and number of times Facebook was checked per day. This study confirmed earlier research by Buffardi and Campbell (2008) reporting that narcissism was related to high numbers of on-line friends, self-promoting self-presentation, and the perception of having a large number of agentic characteristics, such as intelligence or physical attractiveness.

In addition to increased control over one's self-presentation, young adults use Facebook for increased control over managing difficult feelings. They used Facebook to manage feelings of awkwardness or social anxiety, feelings of aloneness and loneliness, and fears of interpersonal rejection. Without exception, they shared that Facebook mitigates feeling awkward with strangers, in new relationships, and even within established relationships. It was somewhat surprising to uncover the frequency with which young adults described themselves as socially awkward, in part, due to their overuse of social media. These results confirm speculation by Caplan (2005) that a deficit in perceived interpersonal competence leads to a preference for on-line social interaction. He ascribed those preferences to the perceived benefits of computer-mediated communication (Caplan, 2003). Users described computer-mediated communication as easier because it required less interpersonal sophistication. In addition, it was perceived to be less risky than face-to-face communication because it offered greater anonymity, greater control over self-presentation, less social responsibility toward others, and less social risk. Finally, computer-mediated communication was seen as more exciting due to more intense and intimate self-disclosures. Certainly, this study confirmed all of Caplan's perceived benefits. This can become a vicious cycle for the user, as social awkwardness begets preference for on-line social interaction, leaving the user out of practice relating face-to-face which creates additional concerns about social competence and so on.

It seems reasonable that some deficiency in real life relationships, experienced as loneliness, might drive individuals to use the Internet to meet their social needs. Previous research (Hu & Ramirez, 2006; Kim, LaRose, & Peng, 2009; Madrid & Wiseman, 2003),

however, did not find support for this assumption. However, the current study found

both quantitative and qualitative support for the relationship between loneliness and use

of Facebook. More interestingly, the qualitative data revealed not only data to support

using Facebook to avoid feeling lonely, but also using Facebook to avoid appearing alone.

Rokach (2011) discussed the unique social stigma to loneliness, stating that a deficiency

in social ties may imply that a person is inadequate or has socially undesirable traits. She

goes on to say that this is especially impactful in today's world, where relationships are

the primary method for affirming self-esteem. Her assumptions were supported in the

qualitative data indicating that while it was bad to feel lonely, it was worse to appear

alone or lonely. Facebook, however, allows users to circumvent this appearance by

allowing even lonely people to look "busy and popular" on-line.

Fascinatingly, in addition to using Facebook to avoid feeling socially ostracized,

social media can be used to ostracize (Auter, 2007). Gergen (2002) theorized that

involvement in computer-mediated activities while in the physical presence of another,

socially banishes the face-to-face person from the mediated event. He refers to this

theory as absent presence, in which one person ignores the present other in favor of a

computer-mediated interpersonal interaction, which the embodied other is unable to take

part in. Gergen theorized that this allows the user of computer-mediated communication

to create a secure interpersonal bubble, which is congruent with the current study's

findings that young adults use Facebook to psychologically protect themselves.

Although the current study certainly found that control over self-presentation was

a powerful tacit motivator for on-line social interaction, it also revealed discrepancies in

participants' outlooks. For instance, while many participants agreed that on-line they had

more time to think about what they wanted to say, they also disclosed that they said things they normally would not reveal. This is due, in part, to the tendency to overcompensate for the limited bandwidth of social media. However, it was confusing to participants when they considered that people had time to think about what they said and yet choose to go further on-line than they would in real life, leading participants to believe that posters are intentional or deliberate in expressing the more ambitious things that they post on-line. Another discrepancy in the data was related to participants' wariness about on-line disclosures. It was difficult for participants to unequivocally accept another's posting on-line because they were aware of the ability to conceal one's real thoughts and feelings. While participants enjoyed the control they experienced over their own self-presentation, it made them suspicious of the authenticity of the presentation of others.

Finally, young adults feel that the interpersonal distance created by technology makes possible rejection more manageable and less threatening. Therefore, they frequently use Facebook to reach out to others or to engage in interpersonally risky discussions. Interestingly, even while using Facebook in this manner, they also indicated awareness that social media allows them to shortcut some very important developmental issues. Facebook allows them to avoid experiencing emotions outside of their control and outside of their comfort zone, which costs them in the long run, especially in terms of emotional resiliency, as they are not forced to work through their difficult feelings and experience the success of resolution.

Discussion of self-perception results. Many young adults fear that social media might actually detract from their interpersonal skills, leaving them out of practice talking

in person and more socially awkward. Within this study, there were numerous instances

where they found themselves feeling less comfortable and skilled at face-to-face

communication as they developed increased skills in on-line communication. This has

several implications for users of social media. First, it has already been established that a

perceived deficit in social skills can lead to an increased preference for on-line social

interaction. Additionally, this can lead to a vicious cycle, as increased use then leads to

reduction in skill and comfort in face-to-face interactions. Furthermore, in order to have

an I-Thou encounter (Buber, 1958) people need to be face-to-face. A reduction in the

number of I-thou moments impacts not only the individual and his or her brain

development but increases the number of I-It interactions that lead to an objectification of

others and ultimately a reduction in empathy. Interestingly, the two themes that emerged

under changes in perception were two sides of the same coin – one relating to awareness

of self as discussed in this section and the other relating to awareness of others, which is

discussed in the next section.

Discussion of awareness of others results. The other side of the perception coin

pertains to awareness of others. Young adults reveal a decreased awareness of others

through their experiences of deindividuation and callousness. Deindividuation

(Zimbardo, 1969) refers to a diminished sense of individuality and consequently, a

reduction in a sense of personal responsibility, leading to behavior that is incongruent

with one's personal standards of conduct. It is strongly fostered by feelings of anonymity.

Interestingly, although social networks are not anonymous, the distance created by

technology, allows for a phenomenological experience of anonymity.

When young adults use social media they experience an altered sense of reality, one in which they sometimes lost track of their audience. van Manen and Adams (2009; Adams & van Manen, 2006) contributed this altered state to the phenomenological experience of on-line writing, saying:

> One may begin to write with someone in mind, for whom or to whom one writes. But when one starts to write the other(s) may disappear. As we continue writing we may get caught up in the words and then absorbed in the mood-space of writing and gradually it seems that we are addressing no-one (p. 18).

Furthermore, they posited that writing is an intensely solitary experience and that even when one retains a view of their intended audience, the writer still inhabits a textual space of a single individual and the first reader is still one's self. This confirms the previous discussion, in which, the researcher argued that on-line interactions are with one's own self first and then with an egocentrically imagined other.

Beyond the actual process of writing, which promotes getting caught up in the experience and losing track of one's intended audience, not receiving a response from others also creates a feeling of on-line anonymity. Interestingly, withholding a response is actually part of the culture on Facebook. One of the most popular ways to indicate one's disapproval of someone's post on Facebook is to scroll past and ignore it, however, users described how not receiving a response creates a sense of invisibility. Williams, Cheung, and Choi (2000) found that when participants were ignored over the Internet, their sense of belonging was reduced, which in turn worsened their mood and their feelings of exclusion. Additionally, they found that being ignored resulted in an increase

in conformity. Their results support this study's findings, as one element of deindividuation is to conform to group norms rather than upholding individual standards.

The problem with deinidividuation is that it leads people to behave in ways that are incongruent with their morals and values. An infamous naturalistic study was conducted on Halloween to assess the effects of deindividuation on children (Diener, Fraser, Beaman, & Kelem, 1976). In the study, trick-or-treaters came to various homes and were provided with an opportunity to steal candy and money. The researchers investigated three conditions – anonymity, group presence, and altered responsibility. They found that stealing was significantly increased by anonymity and by the presence of a group. Their results relate perfectly to the current study, in which participants stated that going further on-line was increased by hiding behind a screen and showing off for their on-line audience. A recent study by Nogami and Takai (2008) replicated Diener et al.'s study with undergraduate college students. They randomly assigned students to four groups – anonymous, non-identifiable, non-accountable, and non-anonymous – and only the anonymous group violated the game rules to obtain monetary rewards.

Interestingly, in the trick-or-treat study, stealing was influenced by actual anonymity; however, Facebook only offers technological distance, not anonymity. Zhong, Bohns, and Gino (2010) refer to this as illusory anonymity. Illusory anonymity is a fascinating phenomenon, which they explain:

> Individuals in a room with slightly dimmed lighting or people who have donned a
> pair a sunglasses may feel anonymous not because the associated darkness
> significantly reduces others' ability to see or identify them, but because they are
> anchored on their own phenomenological experience of darkness (p. 311).

Furthermore, they found that illusory anonymity, despite no actual concealment, still resulted in dishonest and self-interested behavior. Illusory anonymity seems remarkable parallel to the experience of concealment within a car that attributes to the expression of road rage. In a study by O'Brien, Tay, and Watson (2004) they reported that when participants felt anonymous, due to the enclosed car, they engaged in more aggressive driving. Sunglasses, cars, and Facebook identities all provide only illusory anonymity, however, they all result in an increase in self-interested behavior and a decrease in awareness of others.

Feelings of anonymity strongly promote deindividuation, which results in a reduction in a sense of personal responsibility leading to behavior incongruent with one's personal standards of conduct (Zimbardo, 1969). Social media users shared confusion over the perceived changes in accountability for one's words on-line because they cognitively know that on-line presentation is not disconnected from off-line relationships. However due to illusory anonymity, they are seduced into behaving in ways that are incongruent with their morals and values. Participants shared that this uncharacteristic behavior could range from saying things on-line that they would not in real life to cyberbullying.

Finally, callousness, one element of a decrease in awareness of others, seems to be another result of technological distance, allowing for the objectification of others and actions outside normal rules of behavior. Callousness was observed in young adults' non-empathetic and uncaring responses to others on Facebook. Callousness was both described by the participants and observed by the researcher. Sturm, Metz, and Oxford (in press) argued that the inherent distance created by mediated communication is related

to an increase in narcissism and a decrease in empathy. A recent study by Konrath, O'Brien, and Hsing (2011) found that current students scored 48% lower in empathy than students who participated in the same study 20 and 30 years ago. Perhaps technological distance as well as a culture of immediate gratification makes today's youth less able to connect on a deeper emotional level with the experience of others (Sturm, Metz, & Oxford, in press). Twenge, Campbell, and Freeman (2012) report similar declines in concern for others. Their study found that Millennials (those born between 2000-2009) and GenX'ers (those born between 1979-1999) showed a decrease in concern for others over Boomers (those born between 1966-1978), which supports the view of today's youth as "Generation Me."

Beyond the distance of technology, perhaps the decline in empathy is neurological. Neuroscientists have made a compelling argument that humans are biologically hardwired for social connection (Cozolino, 2010). The mirror neuron system, discovered in the mid-1990s, reveals how the human brain is capable of creating representations of the internal experiences of others, making it the neural basis for empathy (Siegel, 2006). Siegel explains:

> By perceiving the expressions of another person, the brain is able to create an internal state that is thought to "resonate" with that of the other person. Resonance involves a change in physiologic, affective, and intentional states within the observer that are determined by the perception of the respective states of activation within the person being observed. One-to-one attuned communication may find its sense of coherence within such resonating internal states (p. 254).

If, however, humans are denied the experience of attunement and resonance with another by increased use of computer-mediated communication, then it is reasonable to assume that this would result in a reduction in the experience of empathy.

Implications for Practice

The researcher, a psychotherapist by training, cannot help but consider the potential implications of the study on the practice of counseling. At its most fundamental level, the counseling experience is built on the ability to build a therapeutic alliance between client and clinician. Furthermore, clinical interactions are intense face-to-face interpersonal interactions. Initiating counseling is a brave endeavor for everyone, however, if young adults avoid face-to-face interactions, especially when they are emotionally charged, how much more difficult it will be for them to reach out for help. Further, clinicians, often gifted at building relationships may have to develop new tools for reaching young people who have limited practice with embodied interpersonal interactions. The embodied interaction between client and clinician, while always important, may become the cornerstone of all the therapeutic work surmounting even the presenting concerns and clinical issues.

In terms of clinical issues, it can be anticipated that clinicians will see an increase in narcissism and a decrease in empathy within the client population. Consider the combined implications of choosing social media over face-to-face interactions – allowing young adults to choose a one-dimensional interpersonal relationship over the complexities of a real person, potentially reducing on-line friends into self-objects. As well as, changes in the experience of intimacy, as young adults publicly reveal their innermost secrets in an effort to appear or to feel intimate because they eschew the true

experience of being intimate. And finally, the impact of technological distance allowing users to lose track of the other with whom they are intending to interact. In combination, social media sites promote the development of individualism and narcissism. This development will impact the clinician's ability to form a therapeutic alliance and the client's ability to form meaningful relationships with others, including romantic partners and ultimately their off-spring.

A final implication for clinical practice is the impact of social media on the development of self-concept – the totality of a person's thoughts and feelings about one's own self. Clinically speaking, self-concept develops through the process of interpersonal mirroring, an internalized reflection of the perceptions of others. The development of self-concept (Mehdizadeh, 2010) is based the identity claimed by an individual and the identity endorsed by others about the individual. Face-to-face interactions require that claimed identity occur within certain constraints, such as gender and physical attractiveness, making it difficult to be endorsed by others for incongruent traits. However, on-line, self-concept is malleable as social media allows users to reinvent themselves free of physical characteristics such as gender and ethnicity. While there is inherent benefit in this freedom, a mediated mirroring process allows for additional distortion in the reflection process, potentially leaving users confused about who they believe themselves to be.

Consequently, while social media allows for the reinvention of oneself on-line, it also allows the promotion of an idealized version of oneself. Based on research that young adults present only the best versions of themselves, social media can lend itself to creating an on-line self that is more impressive than one's real life self, creating

incongruence in self-concept. Ultimately, a large gap between a person's real self and his or her ideal self impacts psychological congruence, a construct of well-being.

Recommendations for Future Research

van Manen and Adams (2009) suggested that writing is different than speaking, hence hearing is different than reading. They theorized that speaking and hearing are more relational and create a stronger sense of connection. Additionally, conversation has a certain quality of immediacy allowing one to finish speaking and then immediately prepare to listen. Writing has a different temporal-spatial quality that lacks immediacy and allows more personal reflexivity before delivery. Furthermore, Cozolino (2010) posited that integration of the two halves of the brain through the process of speaking is an integral part of the therapeutic healing of the brain.   Since "producing print is a motor activity distinct from the embodied aspects of real human contact" (Presbury, 2013), future research must consider how writing, rather than speaking, and reading, rather than listening, impacts integration within the brain. Future research should explore changes in brain activity and integration during mediated and embodied communication.

Throughout the reporting of the qualitative results, the researcher called attention to an interesting use of language by participants. They frequently interchanged words in a way that blurred the periphery between virtual and real worlds. For instance, rather than saying that one read something someone else posted on-line, they referred to it as talking. Since language is the basic currency of our interpersonal interactions – used to convey all of our internal experiences (Chung & Pennebaker, 2007) it is important to consider how social media users change their subjective experience of on-line interactions by endowing them with real life attributes through their use of language.

Therefore, assigning speaking and hearing qualities to social media interactions might change the phenomenological experience of those connections, another area to consider for future research.

Interestingly, it seems that the focus on self within the social media experience is ultimately the driving force in the increase of narcissism and decrease in empathy. There seems to be a strong parallel between choosing on-line social interactions over available face-to-face interactions and engaging with on-line pornography. Some see pornography as a viable substitute to sex, however, as a psychotherapist, the researcher wonders what motivates a person to engage in pornography when there is a healthy, consenting real person available for sexual activity. It appears that both on-line social interactions and on-line pornography allow the user to avoid the complexities of real human interaction, which often require give-and-take in a relationship in favor of a one-dimensional interaction that is self-oriented. Without debating the merits of pornography, it seems that research pertaining to the benefits and challenges of pornography use might also highlight some of the characteristics of on-line social interactions and shed light on the impact of self-oriented activities on the development of narcissism and empathy.

Finally, only when discussing specialized use of punctuation did the results indicate a gendered aspect to the research. However, it is notable that females were disproportionately represented in the study. This could be a result of the participant recruitment process; perhaps more females enroll in psychology classes. However, within the qualitative data, a few male participants mentioned that they observed social media use as more prevalent among their female peers. Future research should explore the question of social media as a gendered phenomenon.

Conclusion

This research study was designed to holistically understand the emerging phenomenon of computer-mediated communication. Our adoption of this social technology is happening at astronomical speed, and the current research, although inconclusive, suggests that it is not a benign technology. The human ability to make meaningful interpersonal connections is of profound importance to our psychological health and this study finds that social media has a negative impact on our ability to create and maintain these connections. The study's final conclusions, regarding changes in perceptions of others and self, speak directly to the impact that social media is having on our ability to create and maintain relationships.

While this study separates the two – others and self; the perspectives of attachment, existentialism, and neuroscience would argue that you and I cannot exist as individuals at all, that we can only exist within relationship – as a we. Therefore it is impossible to untwine the two and we must consider the impact of social media on our humanity as a whole. In fact, the notion of an autonomous self is simply a myth, an attempt to disavow our inherent embeddedness with others (Fishbane, 2001). Fishbane asserted:

> Relational autonomy includes both clarity about one's own needs and desires, and a readiness for the relational. By "readiness for the relational," I mean a willingness to be moved by the other, to see and be seen, to stay connected even through conflict, to hear the other's narrative even while articulating one's own, and to negotiate differences…Readiness for the relational also entails relational

accountability to the other, and an openness to being affected by the other's

response (p. 276).

Social media moves people away from readiness for the relational toward traits of

individualism and narcissism. Self-interest, ultimately leads to a loss of self and a

decreased awareness of others, meaning that we are not able to see and fully experience

the humanity of others, creating the psychological distance that allows us to treat others

in inhumane ways. This represents a loss of our most essential human qualities – and it is

a loss that we cannot afford.

Appendix A

IRB Approval

From: Howell, Carrie - howel2ce
Sent: Monday, May 21, 2012 9:03 AM
To: Hatter, Jennifer Lynn - hatterjl
Cc: Echterling, Lennis - echterlg
Subject: IRB- Protocol Approval

Dear Jennifer,
I want to let you know that your IRB protocol entitled, "***Wired to bond: The influence of mediated communication on relationship***" has been approved for you to begin your study. The signed action of the board form, approval memo, and follow-up report form will be sent to your advisor via campus mail. Your protocol has been assigned No. 12-0445. Thank you again for working with us to get your protocol approved.

As a condition of the IRB approval, your protocol is subject to annual review. Therefore, you are required to complete a follow-up report before your project end date. You *must* complete the follow-up report regardless of whether you intend to continue the project for another year. An electronic copy of the follow-up report form can be found on the Sponsored Programs Administration web site at the following URL: http://www.jmu.edu/sponsprog/allforms.html#IRBform.
Your Follow-up Report must be submitted within ***30 days*** of the project end date**.** Although the IRB office sends reminders, it is ultimately ***your responsibility*** to submit the continuing review report in a timely fashion to ensure there is no lapse in IRB approval.
If you have any questions, please do not hesitate to contact me.
Best Wishes,
Carrie

Carrie Howell
Office of Sponsored Programs
JMAC Bldg 6, Suite 26 MSC 5728
1031 Harrison Street
Harrisonburg, VA 22807

Appendix B

Consent to Participate in Research (Phase One)

Identification of Investigators and Purpose of Study

You are being asked to participate in a research study conducted by Jennifer L. Cline from James Madison University, under the supervision of Dr. Lennis Echterling. This is a primarily qualitative research study focused on capturing young adults' lived experience with mediated communication and its effect on the development and maintenance of meaningful relationships. I am conducting this research in partial fulfillment of the requirements for the Ph.D. in Counseling and Supervision and to make a meaningful contribution to my field of study.

This primarily qualitative research study proposes to look at the qualities of relationship, under the theoretical umbrellas of attachment theory, symbolic interaction, and interpersonal neurobiology. In particular, this grounded theory study will examine how relationships might differ in on-line and face-to-face interactions, and attempt to answer the following research questions:

1. How do young adult users of mediated communication differentiate between use of and preference for mediated communication?
2. Is there a difference in the quality of relationship in young adults' experience of on-line versus face-to-face interactions?
3. What is the impact of more frequent encounters with others through mediated communication on young adults' perceptions of others and themselves?

Research Procedures

Should you decide to participate in this research study, you will be asked to sign this consent form once all of your questions have been answered to your satisfaction. This study consists of three phases of data collection; the first phase consists of participation in a focus group, the second phase consists of quantitative data collection, which will be used to select participants for the third phase of inquiry, which consists of a semi-structured individual interview. You are being asked to participate in the first phase of data collection, which requires participation in a focus group with other JMU undergraduate students. In the focus group, you will be asked to discuss a series of open-ended questions relating to your use of mediated communication and how you determine and maintain quality relationships both on- and off-line. Focus groups will be audio-recorded and transcribed, by a paid transcriptionist. All identifying information will be removed from the transcript before submission to the transcriptionist. Data collected in the focus groups will be used to determine themes to explore in more depth, as well as to determine appropriate, unbiased wording of the semi-structured interview protocol to be used in the final interview phase.

Time Required

This phase of the research study will require participation in a focus group with other JMU undergraduate students and will last 60-90 minutes.

Risks

The investigator does not perceive more than minimal risks from your involvement in this study. Your participation is voluntary and you may withdraw from the study at any time. Possible risks include the voluntary loss of time by University students who elect to participate. The investigator does not anticipate that the focus group discussion would provoke any psychological discomfort, however, engaging in the focus group discussion may sensitize you to loneliness, problematic use of the Internet, concerns about conflict, and issues regarding attachment. If participants experience any emotional reactions to the project, information about on-campus resources will be made available to participants. In addition, Dr. Lennis Echterling, faculty advisor for this project, will be available to participants for supportive debriefing as needed.

Benefits

The investigator perceives that by participating in this study, you might develop a deeper understanding of your use of computer-mediated communication and how it impacts your interpersonal development. In addition, participation in the study provides an opportunity to contribute to a new area of research that makes a meaningful contribution to the world in which you live.

Confidentiality

Focus groups will be audio-recorded and transcribed, by a paid transcriptionist. Identifying personal information will be replaced with an identifier code for data analysis and will be kept separate from the recordings and transcribed data. The list of participant names and identifier codes will be kept separate from all other data and the primary investigator will be the only researcher with access to the list. All data will be stored in a locked file cabinet within a locked office of the researcher's independent counseling practice that meets HIPAA standards for confidentiality. In addition, for analysis, data will be imported into NVivo software for coding and stored on the researcher's password protected computer. Upon completion of the study, all information that contains identifying personal information, including audiotapes and the name/identifier list, will be destroyed.

The researcher reserves the right to use and publish non-identifiable data. The results of this project will be presented at professional conferences, classroom presentations, and professional publications. While individual responses are confidential, aggregate data will be presented representing generalizations as a whole. Quotes from the transcripts may be used to demonstrate themes. However, quotes will not contain any identifiable personal information.

Participation and Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

Researcher: Faculty Advisor:
Jennifer Cline   Dr. Lennis Echterling
Department of Graduate Psychology   Department of Graduate Psychology
James Madison University   James Madison University
Email: clinejl@jmu.edu   Telephone: (540) 568-6522
                                               Email: echterlg@jmu.edu

Questions about your Rights as a Research Subject
Dr. David Cockley
Chair, Institutional Review Board
James Madison University
Telephone: (540) 568-2834
Email: cocklede@jmu.edu

Giving of Consent

I have read this consent form and I understand what is being requested of me as a participant in this phase of this study. I freely consent to participate. I have been given satisfactory answers to my questions. The investigator provided me with a copy of this form. I certify that I am at least 18 years of age.

□ I give consent to be audiotaped during my focus group. ____(please initial)
□ I give consent to be quoted anonymously in published or presented final result of research. ____(please initial)

_____   _____   _____
Printed Name of Participant   Signed Name of Participant   Date

_____   _____
Signed Name of Researcher   Date

Appendix C

Focus Group Protocol

Background Information

Good morning/evening, thank you for coming.

In front of you, you will find two copies of the informed consent. Please read and sign the white copy and put it in the center of the table. The purple copy is for you to keep. Are there any questions about the consent form? I would like to highlight a few important issues –

- You do have the right to withdraw from the research study at any point without penalty
- Information will be keep confidential, which in a group setting also means that you are asked not to share information that you hear in this context
- The data will be analyzed on aggregate not individually
- If a quote is used, it will be done anonymously

We have 90 minutes to discuss about 10 questions regarding Facebook and relationships. This means that we will have less than 10 minutes for each question. Please keep that in mind so that we are able to hear from each person in the group for each question. In front of you, you will also find a notecard that you can just down any thoughts that you have when I read the question. I will collect the notecards at the end of the session and they will become part of the data.

If there are no further questions, I would like to get started by having each of you introduce yourselves to the transcriptionist by your alphanumeric code. (So, you will introduce yourself as A1, A2, etc.). In addition, I will be making some notes of things that I may want to follow up on and keep a running log of who is speaking to aid the transcriptionist.

OK, let's begin.

Research question: This grounded theory study will examine how relationships might differ in on-line and face-to-face interactions.

Introduction: I am interested in the process of developing and maintaining meaningful relationships in an age of high social media use, particularly on sites such as Facebook. For the purpose of this focus group, I would like to ask the group to discuss a series of questions regarding Facebook and close relationships.

Questions:

1. How much time do you spend communicating on-line?

2. What topics do you discuss on-line? Are there topics that you would only discuss on-line or that you would only discuss off-line? What are those topics and why?

3. With whom would you confide both on-line and off-line?

4. What motivates you to communicate on-line and off-line?

5. What benefits do you perceive in both on- and off-line communication?

6. What limitations do you perceive in both on- and off-line communication?

7. What rules or norms do you follow when communicating on-line? Do those rules differ from off-line communication rules?

8. How would you define relationship intimacy?

9. How do you maintain intimacy using on- and off-line communication?

10. What qualities make for a strong relationship?

11. Do you have any further thoughts about on-line communication or relationships that you think would be relevant to this discussion?

Thank you again for coming. Please contact me if you have any questions or concerns about your involvement in this research. Your answers today will be used to develop an interview protocol that will be used in the third phase of my research project. I plan to defend my dissertation in the spring and the results of my research will be published on ProQuest, if you are interested in reading what emerges from my project.

Appendix D

Consent to Participate in Research (Phase Two)

Identification of Investigators and Purpose of Study

You are being asked to participate in a research study conducted by Jennifer L. Cline from James Madison University, under the supervision of Dr. Lennis Echterling. This is a primarily qualitative research study focused on capturing young adults' lived experience with mediated communication and its effect on the development and maintenance of meaningful relationships. I am conducting this research in partial fulfillment of the requirements for the Ph.D. in Counseling and Supervision and to make a meaningful contribution to my field of study.

This primarily qualitative research study proposes to look at the qualities of relationship, under the theoretical umbrellas of attachment theory, symbolic interaction, and interpersonal neurobiology. In particular, this grounded theory study will examine how relationships might differ in on-line and face-to-face interactions, and attempt to answer the following research questions:

1. How do young adult users of mediated communication differentiate between use of and preference for mediated communication?

2. Is there a difference in the quality of relationship in young adults' experience of on-line versus face-to-face interactions?

3. What is the impact of more frequent encounters with others through mediated communication on young adults' perceptions of others and themselves?

Research Procedures

Should you decide to participate in this research study, you will be asked to sign this consent form once all of your questions have been answered to your satisfaction. This study consists of three phases of data collection; the first phase consists of participation in a focus group, the second phase consists of quantitative data collection, which will be used to select participants for the third phase of inquiry, which consists of a semi-structured individual interview. You are being asked to participate in the second phase of quantitative data collection, which consists of answering a series of demographic questions, a series of questions regarding your typical use of Facebook, and a series of instruments. Instruments include the Revised UCLA Loneliness Scale, the Generalized Problematic Internet Use Scale 2, the Thomas-Kilmann Conflict Mode Instrument, the Facebook Motives Scale and the Revised Adult Attachment Scale – Close Relationships Version. All identifying information will be stored separately from the data. The quantitative data collected will be used for maximum sampling representation in the final group selected for in-depth interviews.

Time Required

This phase of the research study will require participation in quantitative data collection and will last 60-90 minutes. In addition, participants understand that they may be selected to participate in the final phase of research, and asked to participate in a 60 minute in-depth individual interview.

Risks

The investigator does not perceive more than minimal risks from your involvement in this study. Your participation is voluntary and you may withdraw from the study at any time. Possible risks include the voluntary loss of time by University students who elect to participate. The investigator does not anticipate that the quantitative questions would provoke any psychological discomfort, however, completing the scales may sensitive participants to their level of loneliness, problematic Internet use, concerns about conflict, or issues regarding attachment. If participants experience any emotional reactions to the project, information about on-campus resources will be made available to participants. In addition, Dr. Lennis Echterling, faculty advisor for this project, will be available to participants for supportive debriefing as needed.

Benefits

The investigator perceives that by participating in this study, you might develop a deeper understanding of your use of computer-mediated communication and how it impacts your interpersonal development. In addition, participation in the study provides an opportunity to contribute to a new area of research that makes a meaningful contribution to the world in which you live.

Confidentiality

Identifying personal information will only be used to contact second phase participants for participation in third phase interviews. Identifying personal information will be replaced with an identifier code for data analysis and will be kept separate from the quantitative data. The list of participant names and identifier codes will be kept separate from all other data and the primary investigator will be the only researcher with access to the list. All data will be stored in a locked file cabinet within a locked office of the researcher's independent counseling practice that meets HIPAA standards for confidentiality. In addition, for analysis, data will be imported into NVivo software for coding and stored on the researcher's password protected computer. Upon completion of the study, all information that contains identifying personal information including the name/identifier list will be destroyed.

The researcher reserves the right to use and publish non-identifiable data. The results of this project will be presented at professional conferences, classroom presentations, and professional publications. While individual responses are confidential, aggregate data will be presented representing generalizations as a whole.

Participation and Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

Researcher: Faculty Advisor:
Jennifer Cline   Dr. Lennis Echterling
Department of Graduate Psychology   Department of Graduate Psychology
James Madison University   James Madison University
Email: clinejl@jmu.edu   Telephone: (540) 568-6522
                                                     Email: echterlg@jmu.edu

Questions about your Rights as a Research Subject

Dr. David Cockley
Chair, Institutional Review Board
James Madison University
Telephone: (540) 568-2834
Email: cocklede@jmu.edu

Giving of Consent

I have read this consent form and I understand what is being requested of me as a participant in this phase of this study. I freely consent to participate. I have been given satisfactory answers to my questions. The investigator provided me with a copy of this form. I certify that I am at least 18 years of age.

□ I give consent to be contacted for the third phase interviews. _____(please initial)

_____   _____   _____
Printed Name of Participant   Signed Name of Participant   Date

_____   _____
Signed Name of Researcher   Date

Appendix E

The Revised UCLA Loneliness Scale

Directions: Indicate how often you feel the way described in each of the following statements. Circle one number for each.

Statement	Never	Rarely	Sometimes	Often
1. I feel in tune with the people around me *	1	2	3	4
2. I lack companionship	1	2	3	4
3. There is no one I can turn to	1	2	3	4
4. I do not feel alone *	1	2	3	4
5. I feel part of a group of friends *	1	2	3	4
6. I have a lot in common with the people around me *	1	2	3	4
7. I am no longer close to anyone	1	2	3	4
8. My interests and ideas are not shared by those around me	1	2	3	4
9. I am an outgoing person *	1	2	3	4
10. There arc people I feel close to *	1	2	3	4
11. I feel left out	1	2	3	4
12. My social relationships arc superficial	1	2	3	4
13. No one really knows me well	1	2	3	4
14. I feel isolated from others	1	2	3	4
15. I can find companionship when I want it *	1	2	3	4
16. There are people who really understand me *	1	2	3	4
17. I am unhappy being so withdrawn	1	2	3	4
18. People are around me but not with me	1	2	3	4
19. There arc people I can talk to *	1	2	3	4
20. There are people I can turn to *	1	2	3	4

Appendix F

The Generalized Problematic Internet Use Scale 2

Directions: Endorse each statement by rating the extent to which you agree or disagree
with each item on a scale ranging from (1) definitely disagree to (8) definitely agree.

Statement	Definitely Disagree			Neither Agree or Disagree				Definitely Agree
1. I prefer online social interaction over face-to-face communication	1	2	3	4	5	6	7	8
2. Online social interaction is more comfortable for me than face-to-face communication	1	2	3	4	5	6	7	8
3. I prefer communicating with people online rather than face-to-face	1	2	3	4	5	6	7	8
4. I have used the Internet to talk with others when I was feeling isolated	1	2	3	4	5	6	7	8
5. I have used the Internet to make myself feel better when I was down	1	2	3	4	5	6	7	8
6. I have used the Internet to make myself feel better when I've been upset	1	2	3	4	5	6	7	8
7. When I haven't been online for some time, I become preoccupied with the thought of going online	1	2	3	4	5	6	7	8
8. I would feel lost if I was unable to go online	1	2	3	4	5	6	7	8
9. I think obsessively about going online when I am offline	1	2	3	4	5	6	7	8
10. I have difficulty controlling the amount of time I spend online	1	2	3	4	5	6	7	8
11. I find it difficult to control my Internet use	1	2	3	4	5	6	7	8
12. When offline, I have a hard time trying to resist the urge to go online	1	2	3	4	5	6	7	8
13. My Internet use has made it difficult for me to manage my life	1	2	3	4	5	6	7	8
14. I have missed social engagements or activities because of my Internet use	1	2	3	4	5	6	7	8
15. My Internet use has created problems for me in my life	1	2	3	4	5	6	7	8

Appendix G

Facebook Motives Scale

Directions: Endorse each statement by rating the extent to which each item represents your motivation for using Facebook, from (1) not at all to (5) exactly "like my reason for using Facebook."

Statement	Not at all… like my reason for using Facebook			Exactly…	
1. To send a message to a friend	1	2	3	4	5
2. To post a message on my friend's wall	1	2	3	4	5
3. To communicate with my friends	1	2	3	4	5
4. To stay in touch with friends	1	2	3	4	5
5. Get in touch with people I know	1	2	3	4	5
6. Get through to someone who is hard to reach	1	2	3	4	5
7. To pass time when bored	1	2	3	4	5
8. It is one of the routine things I do when on-line	1	2	3	4	5
9. To occupy my time	1	2	3	4	5
10. To check my wall after I receive an e-mail from Facebook	1	2	3	4	5
11. Develop a romantic relationship	1	2	3	4	5
12. Find more interesting people than in real life	1	2	3	4	5
13. Find companionship	1	2	3	4	5
14. Meet new friends	1	2	3	4	5
15. To feel less lonely	1	2	3	4	5
16. To see other people's pictures	1	2	3	4	5
17. It is entertaining	1	2	3	4	5
18. To read other people's profiles	1	2	3	4	5
19. To enjoy it	1	2	3	4	5
20. To see which of the people I know who joined Facebook	1	2	3	4	5
21. It makes me cool among my peers	1	2	3	4	5
22. Have fun	1	2	3	4	5
23. It is cool	1	2	3	4	5
24. To feel less lonely	1	2	3	4	5
25. No one to talk or be with	1	2	3	4	5
26. So I won't be alone	1	2	3	4	5

Appendix H

Revised Adult Attachment Scale-Close Relationship Version

Directions: The following questions concern how you generally feel in important close
relationships in your life. Think about your past and present relationships with people
who have been especially important to you, such as family members, romantic partners,
and close friends. Respond to each statement in terms of how you generally feel in these
relationships. Endorse each statement by rating the extent to which each item either is (1)
not at all characteristic of me to (5) very characteristic of me.

| Statement | Not at all… | | | | Very… |
			characteristic of me		
1. I find it relatively easy to get close to people.	1	2	3	4	5
2. I find it difficult to allow myself to depend on others.	1	2	3	4	5
3. I often worry that other people don't really love me.	1	2	3	4	5
4. I find that others are reluctant to get as close as I would like.	1	2	3	4	5
5. I am comfortable depending on others.	1	2	3	4	5
6. I don't worry about people getting too close to me.	1	2	3	4	5
7. I find that people are never there when you need them.	1	2	3	4	5
8. I am somewhat uncomfortable being close to others.	1	2	3	4	5
9. I often worry that other people won't want to stay with me.	1	2	3	4	5
10. When I show my feelings for others, I'm afraid they will not feel the same about me.	1	2	3	4	5
11. I often wonder whether other people really care about me.	1	2	3	4	5
12. I am comfortable developing close relationships with others.	1	2	3	4	5
13. I am uncomfortable when anyone gets too emotionally close to me.	1	2	3	4	5
14. I know that people will be there when I need them.	1	2	3	4	5
15. I want to get close to people, but I worry about being hurt.	1	2	3	4	5
16. I find it difficult to trust others completely.	1	2	3	4	5
17. People often want me to be emotionally closer than I feel comfortable being.	1	2	3	4	5
18. I am not sure that I can always depend on people to be there when I need them.	1	2	3	4	5

Appendix I

E-mail Solicitation for Interview

You are receiving this invitation because you previously participated in my dissertation research on social media. At that time, you indicated that, if selected, you would be willing to participate in a one-hour semi-structured individual interview.

I am requesting the opportunity to individually interview you to discuss your experience with social media and its effect on the development and maintenance of meaningful relationships. This interview is worth one research participation credit.

I realize that you are very busy with your studies, particularly at this time in the semester, however, I would greatly value an hour of your time to hear your perspective on my research.

I have times available for interviews on:

- Monday, November 12: 8 AM - 5 PM
- Tuesday, November 13: 3 PM - 9 PM
- Thursday, November 15: 2 PM - 8 PM

Please let me know when you might be available for an interview. Importantly, if you are no longer interested in being interviewed, if you would please let me know so that I can request participation from other students. Again, thank you so much for your participation in my research.

Sincerely,
Jennifer L. Cline
Doctoral Candidate in Counseling and Supervision

Appendix J

Consent to Participate in Research (Phase Three)

Identification of Investigators and Purpose of Study

You are being asked to participate in a research study conducted by Jennifer L. Cline from James Madison University, under the supervision of Dr. Lennis Echterling. This is a primarily qualitative research study focused on capturing young adults' lived experience with mediated communication and its effect on the development and maintenance of meaningful relationships. I am conducting this research in partial fulfillment of the requirements for the Ph.D. in Counseling and Supervision and to make a meaningful contribution to my field of study.

This primarily qualitative research study proposes to look at the qualities of relationship, under the theoretical umbrellas of attachment theory, symbolic interaction, and interpersonal neurobiology. In particular, this grounded theory study will examine how relationships might differ in online and face-to-face interactions, and attempt to answer the following research questions:

1. How do young adult users of mediated communication differentiate between use of and preference for mediated communication?
2. Is there a difference in the quality of relationship in young adults' experience of on-line versus face-to-face interactions?
3. What is the impact of more frequent encounters with others through mediated communication on young adults' perceptions of others and themselves?

Research Procedures

Should you decide to participate in this research study, you will be asked to sign this consent form once all of your questions have been answered to your satisfaction. This study consists of three phases of data collection; the first phase consists of participation in a focus group, the second phase consists of quantitative data collection, which will be used to select participants for the third phase of inquiry, which consists of a semi-structured individual interview. You are being asked to participate in the final phase of data collection, which requires participation in an individual interview. In the interview, you will be asked to discuss a series of open-ended questions relating to your use of mediated communication and how you determine and maintain quality relationships both on and off-line. Interviews will be audio-recorded and transcribed, by a paid transcriptionist. All identifying information will be removed from the transcript and coded data before submission to the transcriptionist. Data collected in the interviews will be used to determine themes to be analyzed for the building of a conceptual theory regarding mediated communication

Time Required

This phase of the research study will require participation in an individual interview and will last approximately 60 minutes.

Risks

The investigator does not perceive more than minimal risks from your involvement in this study. Your participation is voluntary and you may withdraw from the study at any time. Possible risks include the voluntary loss of time by University students who elect to participate. The investigator does not anticipate that the interview discussion would provoke any psychological discomfort, however, engaging in this interview may sensitize you to loneliness, problematic use of the Internet, concerns about conflict, and issues regarding attachment. If participants experience any emotional reactions to the project, information about on-campus resources will be made available to participants. In addition, Dr. Lennis Echterling, faculty advisor for this project, will be available to participants for supportive debriefing as needed.

Benefits

The investigator perceives that by participating in this study, you might develop a deeper understanding of your use of computer-mediated communication and how it impacts your interpersonal development. In

addition, participation in the study provides an opportunity to contribute to a new area of research that makes a meaningful contribution to the world in which you live.

Confidentiality

Interviews will be audio-recorded and transcribed, by a paid transcriptionist. Identifying personal information will be replaced with an identifier code for data analysis and will be kept separate from the recordings and transcribed data. The list of participant names and identifier codes will be kept separate from all other data and the primary investigator will be the only researcher with access to the list. All data will be stored in a locked file cabinet within a locked office of the researcher's independent counseling practice that meets HIPAA standards for confidentiality. In addition, for analysis, data will be imported into NVivo software for coding and stored on the researcher's password protected computer. Upon completion of the study, all information that contains identifying personal information, including audiotapes and the name/identifier list, will be destroyed.

The researcher reserves the right to use and publish non-identifiable data. The results of this project will be presented at professional conferences, classroom presentations, and professional publications. While individual responses are confidential, aggregate data will be presented representing generalizations as a whole. Quotes from the transcripts may be used to demonstrate themes. However, quotes will not contain any identifiable personal information.

Participation and Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

Researcher:	Faculty Advisor:
Jennifer Cline	Dr. Lennis Echterling
Department of Graduate Psychology	Department of Graduate Psychology
James Madison University	James Madison University
Email: clinejl@jmu.edu	Telephone: (540) 568-6522
	Email: echterlg@jmu.edu

Questions about your Rights as a Research Subject

Dr. David Cockley
Chair, Institutional Review Board
James Madison University
Telephone: (540) 568-2834
Email: cocklede@jmu.edu

Giving of Consent

I have read this consent form and I understand what is being requested of me as a participant in this phase of this study. I freely consent to participate. I have been given satisfactory answers to my questions. The investigator provided me with a copy of this form. I certify that I am at least 18 years of age.

□ I give consent to be audiotaped during my individual interview. ____(please initial)
□ I give consent to be quoted anonymously in published or presented final result of research. _____(please initial)

_____   _____   _____

Printed Name of Participant   Signed Name of Participant   Date

_____   _____

Signed Name of Researcher   Date

Appendix K

Interview Protocol (11.5.12)

Introductory Statement for Interview

Thank you for participating in this interview today. My name is Jennifer Cline and I am a doctoral candidate in the Counseling and Supervision program here at JMU. This interview is part of my dissertation research, which is a primarily qualitative research study focused on capturing young adults' lived experience with social media and its effect on the development and maintenance of meaningful relationships.

Before we begin, I would like to review the Consent Form to Participate in Research with you. You have two copies of the consent form, the white one is for you to read and sign; the purple one is for you to keep.

I would like to highlight a few particularly important points of the consent form. First, you have the right to withdraw from the research study at any point without penalty. Second, interviews will be audio-recorded and transcribed by a paid, professional transcriptionist. Identifying personal information will be replaced with an alphanumeric code, which will be used during data collection, analysis, and the subsequent written report. All data will be stored in a locked file cabinet. Finally, data will be analyzed on aggregate; however, individual quotes from transcripts may be used to demonstrate themes. However, quotes will not contain any identifiable personal information.

After all the interviews have been conducted and analyzed, the data will be condensed into constructs and themes. A rich description of the qualitative results will result in a theory of social media use amongst young adults and its impact on the development and maintenance of meaningful relationships. At that point, I will e-mail my results to you, as an original participant, to ask how well my grounded theory captures your actual experience. You may give me your feedback through e-mail or in a face-to-face meeting.

Do you have any questions about your participation in my research project? If all of your questions have been answered, please sign the white copy of the consent form. Please note there are specific places to initial to consent to be audio-recorded and to be anonymously quoted. Also, do you need participation credit for class? If so, I will set that up for your through the psychology subject pool and you will get an hour of credit.

We have approximately one hour to answer about 10 questions, several of which have follow-up questions, which means that we can spend about 5 minutes on each question. I will be monitoring the time to be sure that we stay on track.

Questions:
1. Tell me about how you use social media sites, such as Facebook.
2. What do you want to communicate about yourself through your Facebook page?
   a. How successful are you at communicating your desired message?
   b. What sorts of things might be surprising to people to see on your page?
3. What benefits do you perceive in on-line communication?
   a. Other participants have indicated that they find on-line communication to be a convenient and easy way to stay in touch with distant friends and to stay current with what is happening in the world around them. Could you elaborate on some of these benefits?
4. What potential difficulties do you perceive in on-line communication?
   a. Other participants have indicated that on-line communication can be easily misinterpreted due to the lack of non-verbal cues, it can be distracting, and that people say things on-line that they wouldn't say face-to-face. Could you elaborate on some of these problems?
5. What is it about social media that makes it preferable to face-to-face interactions at certain times?
6. Previous participants indicated that Facebook feels much less awkward than initial face-to-face interactions. Participants indicated that it allows them to have something to do when they are in awkward situations (like riding the bus or waiting for class) and sometimes they get to know people over Facebook first so that their initial face-to-face interactions are less awkward. What has your experience been like with social awkwardness, either your own or your observation of others, and how has social media been a part of that?
7. Do you feel that social media has impacted your ability to develop and maintain your current relationships? If so, how?
   a. Previous participants have indicated that they feel closer to their friends from home, which they maintain through social media, than they do with friends at JMU. Is that true for you as well? What do you think that might be about?
   b. One previous participant stated that he felt that it is more difficult to make new friends at JMU because people are unavailable for interacting due to Facebook, texting, or earphones. In fact, he stated, "I'll see people, like, sit down with maybe people you don't know or even maybe that you just met, and people will all be on Facebook, on like their phone…they'll pull it out immediately if they

don't feel comfortable in a situation or they don't know people, and they'll get on Facebook and it keeps them from actually meeting someone new face-to-face." How has technology impacted your ability to make connections?

8. What discoveries have you made about yourself and others that you didn't realize before using Facebook?

   a. Does your use of social media sites, such as Facebook, change how you think of yourself or others? If so, in what ways?

   b. How does it impact your experience of others when they post something on Facebook that is very different from your real life experience of them?

9. Do you think that on-line interactions are "real" in the same way that face-to-face interactions are "real?"

   a. Previous participants have indicated that they sometimes feel that they are "typing to nothing" when they are posting on Facebook. Another participant stated, "it almost doesn't even seem real when you're like, typing it in a computer. It's just like you're thinking about it and you're upset about it but when, the person's actually in front of you, I think most people would never say some of the things they put on Facebook." How is this the same or different from your experience?

   b. Another participant indicated that Facebook can allow you to communicate with someone but it isn't real because "in five minutes you're gonna click it off and you're gonna be alone in your room." Is there something about sharing time and space during the communication process that makes an interaction more or less real? Or is that unimportant?

10. What other thoughts about on-line communication or relationships do you think would be relevant to this discussion?

Thank you again for participating in this interview. Please take the purple copy of your consent form with you so that you can contact me if you have any questions or concerns about your involvement in this research. If you are interested in what emerges from my project, I plan to defend my dissertation in the spring and my finished project will be published on ProQuest.

Appendix L

Interview Protocol (REVISED 11.11.12)

Introductory Statement for Interview

Thank you for participating in this interview today. My name is Jennifer Cline and I am a doctoral candidate in the Counseling and Supervision program here at JMU. This interview is part of my dissertation research, which is a primarily qualitative research study focused on social media and its effect on the development and maintenance of meaningful relationships.

Before we begin, I would like to review the Consent Form to Participate in Research with you. You have two copies of the consent form, the white one is for you to read and sign; the purple one is for you to keep.

I would like to highlight a few particularly important points of the consent form. First, you have the right to withdraw from the research study at any point without penalty. Second, interviews will be audio-recorded and transcribed by a paid, professional transcriptionist. Identifying personal information will be replaced with an alphanumeric code, which will be used during data collection, analysis, and the subsequent written report. All data will be stored in a locked file cabinet. Finally, data will be analyzed on aggregate; however, individual quotes from transcripts may be used to demonstrate themes. However, quotes will not contain any identifiable personal information.

After all the interviews have been conducted and analyzed, the data will be condensed into constructs and themes. A rich description of the qualitative results will result in a theory of social media use. At that point, I will e-mail my results to you, as an original participant, to ask how well my grounded theory captures your actual experience. You may give me your feedback through e-mail or in a face-to-face meeting.

Do you have any questions about your participation in my research project? If all of your questions have been answered, please sign the white copy of the consent form. Please note there are specific places to initial to consent to be audio-recorded and to be anonymously quoted.

We have approximately one hour to answer about 10 questions, several of which have follow-up questions, which means that we can spend about 5 minutes on each question. I will be monitoring the time to be sure that we stay on track.

Questions:
1. Tell me about how you use social media sites, such as Facebook.
2. What do you want to communicate about yourself through your Facebook page?
    a. How successful are you at communicating your desired message?
    b. What sorts of things might be surprising to people to see on your page?
3. What benefits do you perceive in on-line communication?
    a. Other participants have indicated that they find on-line communication to be a convenient and easy way to stay in touch with distant friends and to stay current with what is happening in the world around them. Could you elaborate on some of these benefits?
4. What potential difficulties do you perceive in on-line communication?
    a. Other participants have indicated that on-line communication can be easily misinterpreted due to the lack of non-verbal cues, it can be distracting, and that people say things on-line that they wouldn't say face-to-face. Could you elaborate on some of these problems?
5. What is it about social media that makes it preferable to face-to-face interactions at certain times?
6. Previous participants indicated that Facebook feels much less awkward than initial face-to-face interactions. Participants indicated that it allows them to have something to do when they are in awkward situations (like riding the bus or waiting for class) and sometimes they get to know people over Facebook first so that their initial face-to-face interactions are less awkward. What has your experience been like with social awkwardness, either your own or your observation of others, and how has social media been a part of that?
7. Do you feel that social media has impacted your ability to develop and maintain your current relationships? If so, how?
    a. Previous participants have indicated that they feel closer to their friends from home, which they maintain through social media, than they do with friends at JMU. Is that true for you as well? What do you think that might be about?
    b. One previous participant stated that he felt that it is more difficult to make new friends at JMU because people are unavailable for interacting due to Facebook, texting, or earphones. In fact, he stated, "I'll see people, like, sit down with maybe people you don't know or even maybe that you just met, and people will all be on Facebook, on like their phone…they'll pull it out immediately if they

don't feel comfortable in a situation or they don't know people, and they'll get on Facebook and it keeps them from actually meeting someone new face-to-face." How has technology impacted your ability to make connections?

8. What discoveries have you made about yourself and others that you didn't realize before using Facebook?

    a. Does your use of social media sites, such as Facebook, change how you think of yourself or others? If so, in what ways?

    b. How does it impact your experience of others when they post something on Facebook that is very different from your real life experience of them?

9. Do you think that on-line interactions are "real" in the same way that face-to-face interactions are "real?"

    a. Previous participants have indicated that they sometimes feel that they are "typing to nothing" when they are posting on Facebook. Another participant stated, "it almost doesn't even seem real when you're like, typing it in a computer. It's just like you're thinking about it and you're upset about it but when, the person's actually in front of you, I think most people would never say some of the things they put on Facebook." How is this the same or different from your experience?

    b. Another participant indicated that Facebook can allow you to communicate with someone but it isn't real because "in five minutes you're gonna click it off and you're gonna be alone in your room." Is there something about sharing time and space during the communication process that makes an interaction more or less real? Or is that unimportant?

10. What is your reaction when you see someone post a depressed or complaining status on Facebook?

    a. Some participants have indicated that they feel that depressed or complaining statuses are just a way to get attention. How does this impact how you react to their status?

11. What other thoughts about on-line communication or relationships do you think would be relevant to this discussion?

Thank you again for participating in this interview. Please take the purple copy of your consent form with you so that you can contact me if you have any questions or concerns about your involvement in this research. If you are interested in what emerges from my project, I plan to defend my dissertation in the spring and my finished project will be published on ProQuest.

Appendix M

Interview Protocol (REVISED 11.12.12)

Introductory Statement for Interview

Thank you for participating in this interview today. My name is Jennifer Cline and I am a doctoral candidate in the Counseling and Supervision program here at JMU. This interview is part of my dissertation research, which is a primarily qualitative research study focused on social media and its effect on the development and maintenance of meaningful relationships.

Before we begin, I would like to review the Consent Form to Participate in Research with you. You have two copies of the consent form, the white one is for you to read and sign; the purple one is for you to keep.

I would like to highlight a few particularly important points of the consent form. First, you have the right to withdraw from the research study at any point without penalty. Second, interviews will be audio-recorded and transcribed by a paid, professional transcriptionist. Identifying personal information will be replaced with an alphanumeric code, which will be used during data collection, analysis, and the subsequent written report. All data will be stored in a locked file cabinet. Finally, data will be analyzed on aggregate; however, individual quotes from transcripts may be used to demonstrate themes. However, quotes will not contain any identifiable personal information.

After all the interviews have been conducted and analyzed, the data will be condensed into constructs and themes, which will result in a theory of social media use. At that point, I will e-mail my results to you, as an original participant, to ask how well my grounded theory captures your actual experience. You may give me your feedback through e-mail or in a face-to-face meeting.

Do you have any questions about your participation in my research project?

We have approximately one hour to answer about 15 questions, several of which have follow-up questions, which means that we can spend a few minutes on each question. I will be monitoring the time to be sure that we stay on track.

Questions:

1. Tell me about how you use social media sites, such as Facebook.

    a. How much time does this consume?

    b. How much of that time are you actively engaging in the site through posts and comments versus time spent observing others?

    c. What are you getting out of posting? Observing?

2. What do you want to communicate about yourself through your Facebook page?

    a. What sorts of things might be surprising to other people to see on your page?

    b. How does it impact your experience of others when they post something on Facebook that is very different from your real life experience of them?

3. What benefits do you perceive in on-line communication?

4. Other participants have indicated that on-line communication can be easily misinterpreted due to the lack of non-verbal cues, it can be distracting, and that people say things on-line that they wouldn't say face-to-face. Could you elaborate on some of these problems?

5. For what types of interactions is social media preferable to face-to-face interactions?

6. Other participants have discussed ways that they see Facebook as a way to avoid feeling awkward. They gave several examples, such as using Facebook to have something to do when they are in awkward situations (like riding the bus or waiting for class) and getting to know people over Facebook first so that their initial face-to-face interactions (like with a new roommate) are less awkward. How has your experience been the same or different than these examples?

7. Similarly, are there times that you have used Facebook not to feel or appear alone?

8. How has social media impacted your ability to develop and maintain your current relationships?

    a. Does Facebook enhance or deplete your interpersonal skills?

    b. Does the time that you spend on Facebook impact the time that you spend in face-to-face interactions? How so?

9. Do you think that on-line interactions are "real" in the same way that face-to-face interactions are "real?"

    a. Previous participants have indicated that they sometimes feel that they are "typing to nothing" or "talking to self" when they are posting on Facebook. One person stated, "it almost doesn't even seem real when you're, like, typing it in a computer." Have you ever experienced that feeling of disconnection? If so, what do you think that is about?

b. Is there something about sharing real time and physical space during the communication process that makes an interaction more or less real?

10. What type of status post is most likely to annoy you and how will you respond?

11. What type of status post do you find most enjoyable and how do you respond?

12. In a global sense, what do you think about your generation and how you all use Facebook? What does it mean about you?

13. What other thoughts about on-line communication or relationships do you think would be relevant to this discussion?

Thank you again for participating in this interview. Please take the purple copy of your consent form with you so that you can contact me if you have any questions or concerns about your involvement in this research. If you are interested in what emerges from my project, I plan to defend my dissertation in the spring and my finished project will be published on ProQuest.

Appendix N

Interview Protocol (REVISED 11.26.12)

Introductory Statement for Interview

Thank you for participating in this interview today. My name is Jennifer Cline and I am a doctoral candidate in the Counseling and Supervision program here at JMU. This interview is part of my dissertation research, which is a primarily qualitative research study focused on social media and its effect on the development and maintenance of meaningful relationships.

Before we begin, I would like to review the Consent Form to Participate in Research with you. You have two copies of the consent form, the white one is for you to read and sign; the purple one is for you to keep.

I would like to highlight a few particularly important points of the consent form. First, you have the right to withdraw from the research study at any point without penalty. Second, interviews will be audio-recorded and transcribed by a paid, professional transcriptionist. Identifying personal information will be replaced with an alphanumeric code, which will be used during data collection, analysis, and the subsequent written report. All data will be stored in a locked file cabinet. Finally, data will be analyzed on aggregate; however, individual quotes from transcripts may be used to demonstrate themes. However, quotes will not contain any identifiable personal information.

After all the interviews have been conducted and analyzed, the data will be condensed into constructs and themes, which will result in a theory of social media use. At that point, I will e-mail my results to you, as an original participant, to ask how well my grounded theory captures your actual experience. You may give me your feedback through e-mail or in a face-to-face meeting.

Do you have any questions about your participation in my research project?

We have approximately one hour to answer about 15 questions, several of which have follow-up questions, which means that we can spend a few minutes on each question. I will be monitoring the time to be sure that we stay on track.

Questions:

1. Tell me about how you use social media sites, such as Facebook.

   a. How much time does this consume?

   b. How much of that time are you actively engaging in the site through posts and comments versus time spent observing others?

2. What do you want to communicate about yourself through your Facebook page?

   a. What sorts of things might be surprising to other people to see on your page?

   b. How congruent is your Facebook presentation with who you are in real life? How are you the same and how are you different?

   c. How does it impact your experience of others when they post something on Facebook that is very different from your real life experience of them?

   d. How congruent do you find others' Facebook presentation with who they are in real life? How are they the same and how are they different?

3. What benefits do you perceive in on-line communication?

4. Other participants have indicated that on-line communication can be easily misinterpreted due to the lack of non-verbal cues, it can be distracting, and that people say things on-line that they wouldn't say face-to-face. Could you elaborate on some of these problems?

5. For what types of interactions is social media preferable to face-to-face interactions?

6. Other participants have discussed ways they use Facebook to avoid feeling awkward. They gave several examples, such as using Facebook to have something to do when they are in awkward situations (like riding the bus or waiting for class) and getting to know people over Facebook first so that their initial face-to-face interactions (like with a new roommate) are less awkward.

   a. How has your experience been the same or different than these examples?

   b. What have you observed about others and their use of Facebook during awkward times?

7. Similarly, participants have shared times that they use Facebook to not feel, or sometimes just not to look, alone. They gave examples, such as walking across campus by themselves or eating alone.

   a. How has your experience been the same or different than these examples?

   b. What have you observed about others and their use of Facebook during alone time?

8. How has social media impacted your ability to develop and maintain your current relationships?

a. How does Facebook impact your interpersonal skills?

b. Does the time that you spend on Facebook impact the time that you spend in face-to-face interactions? How so?

c. Are there times that you could be in face-to-face interaction and you choose to interact over social media instead? What is going on for you at those times?

9. Do you think that on-line interactions are "real" in the same way that face-to-face interactions are "real?"

a. Previous participants have indicated that they sometimes feel that they are "typing to nothing" or "talking to self" when they are posting on Facebook. One person stated, "it almost doesn't even seem real when you're, like, typing it in a computer." Have you ever experienced that feeling of disconnection? If so, what do you think that is about?

b. Is there something about sharing real time and physical space during the communication process that makes an interaction more or less real?

10. What type of status post are you most likely to ignore?

11. What type of status post are you most likely to respond to?

12. In a global sense, what do you think about your generation and how you all use Facebook? What does it mean about you?

13. What other thoughts about on-line communication or relationships do you think would be relevant to this discussion?

Thank you again for participating in this interview. Please take the purple copy of your consent form with you so that you can contact me if you have any questions or concerns about your involvement in this research. If you are interested in what emerges from my project, I plan to defend my dissertation in the spring and my finished project will be published on ProQuest.

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