

**MOBILE INTIMACY: TELEPRESENCE,  
MOBILE TECHNOLOGY, AND  
ROMANTIC RELATIONSHIPS**

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By  
Julia Claudine Czaja  
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Thesis Approvals:

Matthew Lombard, Thesis Advisor, BTMM

Jan Fernback, BTMM

Undrahbuyan Baasanjav, BTMM

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## **ABSTRACT**

Mobile media are quickly becoming primary sources of communication in everyday life. With this progress, comes the ability to experience an array of different degrees and types of presence. Individuals can be both in the physical presence of others as well as present with others at a distance by experiencing telepresence. This study examined the role of mobile media in the context of romantic relationships. It looked at the relationship between the senses of intimacy and telepresence as they were experienced by individuals. The theories of apparatgeist and perpetual contact were employed to describe the relationship between the nature of the technology, the associated behavior of its use, and the experience of various forms of telepresence. Interviews with fourteen participants provided the data analyzed in this qualitative study. These interviews were transcribed and used for a thematic analysis of presence and intimacy experience. The results describe a wide variance and nuanced reality of how individuals sense the presence of each other through mobile technology. These results contribute to an understanding of how individuals understand and talk about their experience of telepresence and also what it means to them in their personal lives.

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I dedicate this to my family: Chester, William, Monique,

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## CHAPTER 1

### INTRODUCTION

Since the invention of the mobile phone, communicating with other individuals with immediacy has never been the same. Looking around the city in everyday spaces, one can witness the incontestable reality that mobile devices have become integral to people's everyday lives. Though originally designed to be communication technologies, these devices have become much more in their form, function, and attributed ethos. Beginning as simple voice only telephones, the newest mobile devices have advanced to being pocket-sized computers, complete with Internet, virtual gaming, and web chat. The devices have allowed for new forms of mediated interaction that can occur nomadically, away from the desktop. They allow individuals to connect with each other in more diverse ways. With mobile technology, no longer is the concept of presence as simple as being somewhere and not being somewhere. Mobile technology introduces an array of various ways of being present in place and time unlike any other communication medium.

The idea that communication technology is developed with the intent to mimic the intimacy allowed by face-to-face interaction is abundant throughout the literature on the topic; however, actual use of mobile phones reveals that this might not be a true desire of the technology's users. Might there be certain instances when distance and presence are both equally desired at the same time? Do individuals always want a communication medium that will fully mimic their face-to-face interactions? The relationship and continuities between intimacy and presence are complicated and difficult to explicate in a

clear and universally applicable way. Both the concepts of intimacy and presence seek to define an often ineffable, experiential sense. At the heart of this study is the exploration of the phenomenon of feeling the presence of another through a personal technology. Technologically mediated communication is casually thought to be less personal than face-to-face communication. This understanding hints that it is in some way a less humanistic way of communicating. It is true that certain analog messages are lost, such as body language, but in what ways can digital communication be equally, if not more, personal and humanistic than face-to-face communication? In what ways can this kind of technology enhance our most human qualities, the qualities that urge us to share our experiences, joys, and fears with another being?

Telepresence is generally defined as the “illusion of nonmediation” (Lombard & Ditton, 1997, unpaginated). Studies of telepresence often have focused on the ways the physical technology influences the degree of telepresence experienced by the individual. What has not been fully explored is the degree to which emotional connections and deeper psychological practices influence the degree of telepresence. This study of the interplay between intimacy, romantic togetherness, presence, and mobile devices attempts to fill this gap. Furthermore, there has been a lack of agreement within the literature in defining the boundaries and characteristics of social presence. The context of mobile communication use by couples provides an excellent environment for mapping out this contestation. When an individual cannot be in the physical presence of their loved one, how do they understand both the distance between them and the mediated presence of each other? Questions such as this one can greatly inform the definition and understanding of social presence.

The concept of intimacy is not without its own internal discrepancies. Some scholars define it purely in terms of emotional attributes, while others include behavioral interactions and senses of togetherness. Intimacy is an apt variable for studying mobile technology because it is central to interpersonal relationships. It is central to what it means to connect and communicate on a deeper level with another. The notion of intimacy goes beyond the simple communications people make day to day using mobile phones. It relates to the fundamental reasons why people communicate. Intimate communication is about bonding with another human being and sharing personal experiences. Just how this practice is mediated throughout everyday life using mobile technology is important to explore. Studying mediated intimacy means evaluating how a technology satisfies, or fails to satisfy, a human value shared by many.

Though a number of qualitative studies have explored the socio-cultural changes associated with mobile communication (see Baron & Segerstad, 2010; Katz & Aakhus, 2002; Ito, Matsuda, & Okabe, 2005; Rheingold, 2002; Thompson & Cupples, 2008), the relationship between mobile devices, senses of presence, and intimacy still requires extensive study. This study proposes that there is a dynamic relationship between the sense of presence fostered by the mobile phone and the feelings of intimacy between members of couples in a romantic relationship.

The research questions guiding this study are:

RQ1: What is the nature of the relationship between mobile presence and intimacy within the context of a romantic relationship?

RQ2: How does the level of perceived intimacy influence the level of perceived

presence?

RQ3: How does the level of perceived presence influence the perceived level of intimacy?

RQ4: How do states of perpetual contact influence romantic relationships?

This study is a qualitative exploration of the relationship between individuals and their mobile devices, and the mediated relationship between individuals and each other. It is about how intimacy might be nurtured through a constant, but always fluxing, state of mediated connectedness. Our relationships with our mobile phones, which are often always in reach, can be thought of as being cyborg-like. One reason for this is that they can become integral aspects of a person's identity. They can become fundamental to the relationships individuals form and develop with each other. This notion of being intimately bound with a technology seems at first dehumanizing; however, in this thesis, I hope to show that these technologies can be profoundly humanizing in the ways they can enhance how individuals connect with each other.

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

The primary focus of this study is telepresence as it is experienced in the context of mobile technology and romantic relationships. Intimacy is brought in as a corresponding factor that is closely related to the emotional influences of telepresence as it is experienced in daily life. This review of literature begins with an examination of mobile media. This examination is followed by an explication of the concept of telepresence and its various forms in the mobile context. And lastly, the concept of intimacy is explicated in terms of this specific study.

#### **Mobile Technology**

Mobile technology is a prime context for study because few other media devices have the “potential for universal use” (de Gournay, 2002, p.193). The mobile phone is used by individuals of diverse backgrounds, ages, and statuses. Three important properties make the mobile phone unique among communication devices: immediacy, reach-ability, and mobility (de Gournay, 2002). Immediacy refers to the ways communication is instant, with information sent and received in real time (de Gournay, 2002). Reach-ability refers to the multitude of links formed between individuals that allow them to be connected in the mobile network (de Gournay, 2002). Mobility is the simplest and most obvious advantage of the device. With the advent of the smartphone, it is important to add to this list of unique attributes that the mobile phone allows for multiple forms of communication: vocal, textual, and non-textual. Mobile phones allow individuals the ability to speak to one another with immediacy, as de Gournay (2002)

asserted. The smartphone also allows individuals to communicate in nonverbal ways, for example through mobile-based games such as “Words with Friends,” a scrabble-like game. Other examples of nonverbal communication allowed by smartphones are visual communications through image-based, social networking sites such as Flickr and Instagram. This variance in the form of mediation associated with mobile phone communication results in a more complex array of presence and intimate experiences.

Mobile supported telepresence provides an excellent, while complicated, site for a more comprehensive explication of the concept of mediated intimacy for a number of reasons. First, it is a medium that is often used every day and in a multitude of situations. It is more common now than ever before to see people using cell phones in situations where it was previously thought to be rude; for example, texting during meetings and other inclusive social situations. In this sense, this technology brings the mediation of intimacy into new spaces (Katz & Aakhus, 2002). Second, it is a medium used by a diverse group of people, from old to young. It is not a niche technology that reaches only a small group of users. Third, mobile devices are becoming the primary mode of communication between people. Turkle (2011) noted that this kind of communication is in some situations becoming valued over face-to-face communication.

Often it is thought that something is lost in the mediation of communication. This is true in certain ways, but it is also true that something can be gained in mediated communications. Though certain communicatory information, such as body language, is lost, mobile communication allows for new interactions that are not possible face-to-face. Furthermore, mediated communications can be as meaningful as non-mediated interactions. For example, a photo sent between physically distant, romantic partners

might be a meaningful gesture that nourishes a sense of intimacy between the two. The connection between this kind of interaction and the sense of telepresence experienced between members of couples has yet to be comprehensibly explored.

### *Perpetual Contact and Apparatgeist*

The sociological approach to understanding mobile media has been extensively researched. Katz (2006, Katz & Aakhus, 2002) is a leader in this exploration and has put together not only multiple collections of fieldwork on mobile communication, but also developed a theory that describes the evolution of the mobile environment. Katz and Aakhus (2002) deduced, through their review of a broad, collective scholarship on mobile devices, that there are certain patterns in the ways these devices are taken up, regardless of the purpose for which they were designed. They coined the term “apparatgeist” (p. 305) to describe the “logic” and “spirit” (p. 305) of both the technology and the human endeavors associated with it (Katz & Aakhus, 2002). This term denotes “the common set of strategies or principles of reasoning about technology evident in the identifiable, consistent, and generalized patterns of technological advancement throughout history” (Katz & Aakhus, 2002, p. 307). The central concept of the term apparatgeist is “perpetual contact” (Katz & Aakhus, 2002, p. 307). This understanding is both the theoretical foundation of the study of the mobile environment as well as the sociocultural structure of the technology's use and adoption. Perpetual contact is the ideal function of the mobile device made possible by both its physical form (apparat) and its cultivated social ideologies (geist) (Katz & Aakhus, 2002).

Perpetual contact is a concept that can relate closely to telepresence. Perpetual

contact involves the continuity of presence achieved through mobile communication. It involves the continual willingness to be contacted and connected with. Through certain forms of perpetual contact, such as mobile chat and social networking, individuals can remain present both online and offline throughout the day, nomadically. The self is both centered in the body as well as disembodied in virtual space. In some ways this understanding is similar to the posthuman definition of self put forth by Hayles (1999). The posthuman depends upon the blurring of boundaries between embodied self and disembodied self, between person and technology (Hayles, 1999). Through certain kinds of smartphone interaction, the understanding of oneself includes being present and networked online in a disembodied form. This concept relates to the apparatgeist of the mobile phone. It is a state of self that is formed by both the qualities of the device and its associated social practices.

### *Mobile Presence*

The cultural notions of presence, absence, and being with others have been altered by the social uptake of mobile communication technologies (Caron & Caronia, 2007; Katz, 2006; Katz & Aakhus, 2002). For Caron and Caronia (2007), the adoption and use of mobile communication is both culturally and contextually specific. Focusing on the alteration of space and time, Caron and Caronia (2007) observed mobile use in everyday life over a period of eight years. Through their fieldwork, they found that the alteration of the concept of distance in the context of mobile technology centers on two intertwining concepts: the “delocalization and multilocalization” (p. 15) of the self. Delocalization refers to the ways place is often unknown, for example one individual during a mobile phone conversation can only be sure of his own place (Caron & Caronia, 2007).

Multilocalization refers to the multiple, possible locations for the self (Caron & Caronia, 2007). It is a nomadic sense of self. The space of interaction can be imagined through orally exchanged prompting, but it can still be a mystery. The cultural notions of space and disembodied presence are constructed by the dynamic relationship between cultivated uses, individual interactions, and the possibilities allowed by the technologies themselves (; Caron & Caronia, 2007; Katz & Aakhus, 2002; Katz, 2006). In other words, Caron and Caronia's (2007) conceptualization of mobile phone culture fits in with the theory of *apparategeist*.

The mobile phone has the capability of allowing the individual flexible states of presence in the form of flexible states of attention. Stated another way, the mind can be both partially present in the physical moment and partially present in a disembodied, virtual space. Gergen (2002) terms the moments of divided attention associated with mobile phone use "absent presence" (p. 227). Turkle (2008) also voices this concern over the partiality of attention that has emerged with the mobile phone. She adopts the term "continuous partial attention" (Stone, 2006 as cited in Turkle, 2008, unpaginated). This phenomenon is in part a result of the evolving culture of mobile phone use (Gergen, 2002). Gergen (2002) argues that the source of absent presence is with the emergence of print language and the ways it allows for people to communicate with each other at a distance.

Gergen (2002) believes that the social evolutions of mobile phones are mostly negative; for example, the apparent decreasing value of face-to-face communication (Gergen, 2002). This is not necessarily the case. The evolution of technology that alters how individuals can communicate through distances does not necessarily determine how

they value mediated communication. Though mobile communication allows individuals to communicate more often with each other through practices of absent presence, it does not change the fact that individuals still communicate face-to-face often and every day. Gergen's (2002) concept of absent presence describes the flexible states of presence allowed by the culturally developed practices of mobile devices; however, the term is not widely used. Furthermore, the definitions of various types of telepresence can more accurately describe the nuances of mediated communication and presence. Absent presence more closely relates to the concept of fluctuating attention than of telepresence. Telepresence is a phenomenon that is sensed. The concept of attention centers on the preoccupations of the mind. Telepresence involves the concept of attention, but describes a specific experience. The notion of absent presence more closely relates to the concept of attention than of telepresence.

### *The Device and the Self*

Exploring the daily experiential value of communicating through mobile media necessarily entails an exploration of the relationship between an individual and a communication device. This relationship can be explored in different ways. It can be examined according to its more psychological and emotional effects or in a more functional sense by looking at how the relationship is progressively constructed. Turkle (2008) explores the former aspect of the relationship. She calls the relationship between the mobile and the individual the “tethered self” (Turkle, 2008, unpaginated, *A New State of the Self, Itself*). This term does not define the physical qualities of the relationship, but rather the psychological and emotional ties that individuals create with their mobile phones (Turkle, 2008). With new forms of communication and expression made possible

with mobile technology, individuals become “tethered” to the mobile technology’s new social fulfillments (Turkle, 2008). Her exploration of the self in the context of mobile computing focuses on how our understanding of ourselves is altered by new practices of mediated social interaction. This understanding of the mediated self is important for this study because these “new subjectivities,” as Turkle (2008, unpaginated) calls them, influence how we connect with each other. It can also give us clues to how our culture begins to understand presence in the mediated environment. The tethered self is in a nearly constant state of contact with a network of other individuals (Turkle, 2008). This reality is present within people's interpersonal relationships and so it may influence the varying levels of telepresence and intimacy that they experience. The tethered self can be viewed as a subjectivity that describes a possible apparatgeist of mobile technology. Turkle’s (2008) concept of the tethered self may be true for some individuals; however, it cannot be assumed of all mobile phone users. The way she describes this new subjectivity insinuates that it is primarily a result of the increasing sophistication of the technology and what it allows. The process of tethering implies a lack of agency on the part of the human.

A more functional approach to the relationship between the mediation technology and the user looks at the ways the interface and qualities of the media satisfy the human senses in order to enhance the interaction. Biocca and Nowak (2002) view the body itself as a communication and mediation device. This focus on the body is integral to the concept of “progressive embodiment” (Biocca, 1997, unpaginated) and mediated embodiment (Biocca & Nowak, 2002). Progressive embodiment refers to the ways that the communication interface is developed to include more and more of the human

sensorium (Biocca, 1997). Mediated embodiment is a very similar concept that defines the “process of more tightly connecting the body and mind to the medium” (Biocca & Nowak, 2002, p. 410). Biocca and Nowak (2002) map out the evolution of mediated communication devices and distinguish four levels. These levels include: the degree of sociability, the “ubiquity of access,” the degree of intelligence, and the degree of “mediated embodiment” (Biocca & Nowak, 2002, p. 414). The level of sociability refers to the degree of social possibilities and use (Biocca & Nowak, 2002). Ubiquity of access refers to the diversity in ways and places in which to use the communication technology (Biocca & Nowak, 2002). The degree of intelligence refers to the extent to which the interface adapts to the user (Biocca & Nowak, 2002). Finally, the degree of mediated embodiment refers to the degree to which the technology involves the user’s senses (Biocca & Nowak, 2002). An ideal communication device would have high levels of all four qualities (Biocca & Nowak, 2002). Biocca and Nowak (2002) consider virtual reality the highest form of ideal mediated communication.

The mobile device involves high degrees of all levels of Biocca and Nowak’s (2002) charting of communication technology, but in very different ways than virtual reality. The high sociability quality of mobile technology is obvious. The technology is primarily designed for connecting and communicating with other people in a diversity of ways. The mobile device has a high level of ubiquitous access because it can be used in numerous ways, in countless spaces, and nearly anytime. The mobile device has a high degree of interface intelligence because users can personalize their phones with applications and layouts that fit their personal lives. Furthermore, technologies like GPS adapt applications to the user’s position in space. Another example of interface

intelligence is Apple's new artificial intelligent technology for the iPhone, Siri. In terms of mediated embodiment, mobile media differ strongly from virtual reality in that the body is not always recreated in space. With mobile media, the physical body itself is still the center of communicative action, not a virtual avatar. The mobile device is closely tied with the body and its movements in daily life, but it does not always engage all the senses. Phone calls engage the sense of listening, while texting and gaming engage a visual sense. Haptic feedback on certain mobile screens brings the sense of touch into communication. Generally, people carry their phones close to their bodies. Deeper than the physical connections between the mobile device and the body, the technology connects with an individual's mind and emotions in the ways it connects the individual to others.

The scholars reviewed in this section span the range from broader cultural perspectives to detailed perspectives on the relationship between individual and technology. The mobile device has influenced societal understandings of what it means to be present and connected with each other (Caron & Caronia, 2007; Katz & Aakhus, 2002; Gergen, 2002; and Turkle, 2008). The advancement of this type of technology has also influenced how individuals interact with a communication device itself. Studying how presence is understood and experienced in a mediated context means studying what scholars call telepresence. This concept is the focus of the next section.

### **Telepresence**

Telepresence is defined by the International Society for Presence Research (2000) as, "a psychological state or subjective perception in which even though part or all of an

individual's current experience is generated by and/or filtered through human-made technology, part or all of the individual's perception fails to accurately acknowledge the role of the technology in the experience" (Presence Defined, unpaginated). Telepresence is a difficult concept to define because of the abstract and subjective nature of how it is experienced. Despite this challenge, a few scholars have mapped out the major themes and differing types of the phenomenon. In an evaluation of the literature on the definition of telepresence, Lombard and Jones (2008) note that most definitions consider the phenomenon as a subjective occurrence experienced by an individual human. For the purposes of this study, it is most useful to emphasize the phenomenological qualities of telepresence, how it is actually experienced in moments of everyday life. Through mobile communication, telepresence is experienced in moments throughout everyday life. It is an experience embedded within quotidian patterns, involving an individual's emotions, behaviors, and understanding of the world around them.

The broad definition put forth by Lombard and Ditton (1997) that presence is most basically the "perceptual illusion of nonmediation" (unpaginated) is most valuable. This definition of the general sense of telepresence encompasses the various types of mediated presence experienced through mobile technology. This definition means that an individual overlooks in any small or large degree the position of technology in their mediated interaction (Lombard & Ditton, 1997; Lombard & Jones, 2008).

Within the literature there is much disagreement on the terminology of telepresence (Bracken & Skalski, 2010; Lombard & Jones, 2008). Lee (2004) notes three problems with the current way presence is discussed in the literature. The first is that researchers from different disciplines use different terms to signify the same concept

(Lee, 2004). Others note this problem in the field as well (Biocca, Harms, & Burgoon, 2002; Bracken & Skalski, 2010; Lombard & Jones, 2008; Zhao, 2003). The second issue is that the literature lacks a clear definition of how virtuality differs from “other types of human experience” (Lee, 2004, p. 28). This statement is arguable because the majority of literature and studies about telepresence focus on the technologically mediated experience. The third problem noted by Lee (2004) is a result of the previous issue, that the “literature lacks coherence when it tries to define three types of presence—physical, social, and self...” (p. 28). Lombard and Jones (2008) examined this issue in depth in a manuscript that details the nuances, differences, and similarities between different types of presence and telepresence. Lombard and Jones (2008) suggest that the field of telepresence is still new and must somehow remain flexible to include a variety of emergent technologies; however, it is still important for the new field to maintain a standard use of terms (Lombard & Jones, 2008).

Lee (2004) favors the term *presence* for defining both the mediated and nonmediated sense; however, Bracken and Skalski (2010) point out that the mediated nature of the concept is important, thus the term *telepresence* is more valuable. Likewise, Lombard and Jones (2008) agree that not differentiating between presence and telepresence causes much confusion in the literature. Within this study on intimacy and mobile communication within couples, it is necessary to have a clear way of differentiating face-to-face presence from mobile, mediated presence. Throughout this research, *presence* will refer to the general sense of presence, both mediated and non-mediated. Non-mediated states of presence will be referred to as either face-to-face, in person communication, or physical presence. The term *telepresence* will refer strictly to

the sense of presence fostered by technology. With this said, there are multiple types of telepresence in the context of mobile communication.

The habitual, daily use of mobile technology is not highly focused upon in telepresence literature. Many of the examples of telepresence explored through research center on media such as film, virtual reality, video conferencing, or game playing. They involve scenarios that are distinctively experienced and can be studied in a controlled environment. Although mobile culture has been the focus of sociological study, the experience of telepresence lacks comprehensive qualitative research that focuses on how it is experienced in daily life. It is apparent that telepresence is experienced at some level some of the time during mobile phone use; however, the kind of mediation constructed by the technology does not fit neatly into a single category of the types of telepresence defined by the community of telepresence scholarship. Mobile communication involves multiple types and interpretations of telepresence. These types and their relation to mobile technology will be explored in the following sections.

### *Spatial Presence*

Spatial presence refers to the telepresence involved with the sense of mediated space (Lombard & Ditton, 1997; Lombard & Jones, 2008). With mobile phone use, the space of mediation is not reconstructed virtually as it might be with video conferencing and video game play. However, there is a sense of transportation of the mind away from the physical place of the user. This phenomenon is apparent in the reasoning behind the ban of using cell phones while driving. Both the abstract notions of disembodied transportation and togetherness are inherent in mobile communication. Lombard and

Ditton (1997) describe this form of the phenomenon as a type of perceptual “transportation” (unpaginated). This idea invokes the sense of becoming virtually present in a place through the disembodiment of the self. Communicating to one another through the phone evokes a certain level of social togetherness and spatial displacement. The concept of “perceptual immersion” (Presence defined, unpaginated) relates to the sense of spatial presence (ISPR, 2000). It describes the sense that the individual “fails to accurately acknowledge the role of technology” (ISPR, 2000, Presence defined, unpaginated). In this study, immersion was understood as a factor of the spatial presence experience.

The spatial presence associated with mobile communication is unlike many of the scenarios described as such in the literature. As mentioned before, the space of communication is not fully recreated virtually as in virtual reality; however, certain forms of mobile media do have digital space for communication. Gaming and social networking applications, although not as immersive as virtual reality, recreate a visual, digital space for interaction. With an application like Facebook Mobile or Words With Friends there is a sense that individuals are interacting within a particular space separate from where they physically may be situated. Even texting provides this recreation of space. Through texting the screen of the mobile device becomes a visual and textual platform for individuals to make their telepresence known to others. This type of spatial presence involved in mobile communication very closely resembles, and in some ways overlaps with, social presence. Lombard and Jones (2008) note that social presence is not “mutually exclusive” (p. 20) from spatial presence. Both can involve the sense of shared space (Lombard & Ditton, 1997; Lombard & Jones, 2008).

## *Social Presence and Copresence*

Social presence and copresence refer to the sense that at least one other individual is present within a mediated interaction (Biocca et al., 2003). This concept also includes the “sense of accessibility of the other being's psychological, emotional, and intentional states” (Biocca et al., 2003, p. 10). Because this study is about interpersonal relationships and intimacy in a mediated environment, defining and understanding social presence is a central concern. Similar to other forms of telepresence, social presence is defined in the literature in a number of ways. One reason for this could be that it occurs in a wide range of different scenarios, each with different degrees of virtual immersion and social richness. Biocca (1997) defines social presence as happening when “users feel that a form, behavior, or sensory experience indicates the presence of another intelligence. The amount of social presence is the degree to which a user feels access to the intelligence, intentions, and sensory impressions of another” (7.2 Definition of social presence, unpaginated). Although the definitions and particular terms might differ in the literature, all refer to the sense of presence of another person separate from oneself.

Within the presence literature there is much disagreement on the differentiation between social presence and copresence. The disagreement occurs primarily on whether copresence is a subset of social presence or a different kind of presence entirely. In consideration of this debate, it is most important to first keep in mind what is actually being defined. In the case of mobile media, we are searching for a term to describe the sense of togetherness brought on by the interactions made with and through a mobile device. Lee (2004) defines social presence in a way that requires the social other to be simulated and artificial. In doing so, he starkly distinguishes the concept of copresence

from social presence. Lombard and Ditton (1997) define the concept of copresence within the category of social presence. They also term it “transportation: shared space” (Lombard & Ditton, 1997, unpaginated). They define it as occurring “when part or all of a person's perception fails to accurately acknowledge the role of technology in her/his perception that the person or people with whom s/he is engaged in two-way communication is/are in the same physical location and environment when in fact they are in a different physical location” (Lombard & Ditton, 1997, unpaginated).

Goffman (1963), who is often cited as the originator of the concept of copresence in social situations, considers communication that is not directly sourced from the body as disembodied information. He emphasizes the centrality of the naked, unmediated, senses receiving the information (Goffman, 1963). Goffman (1963) details the full requirements of copresence, saying that “...persons must sense that they are close enough to be perceived in whatever they are doing, including their experiencing of others, and close enough to be perceived in this sensing of being perceived” (p. 17). What does this mean for telepresence? This type of undivided presence cannot fully be achieved with the state of technology in mobile communications. Telepresence in the form of the awareness of one another in the mediated environment must be actively and purposely achieved. Using Goffman's definition of copresence for a mediated context, Zhao (2003) defines the type of presence occurring when two people speak on the phone or within a computer mediated chat as “corporeal telecopresence” (p. 3). Both Zhao and Goffman's approach to copresence center on the sense of physical proximity. Zhao's (2003) new terminology for the phenomenon of telepresence focuses on the body, its placement and its senses. Though the human sensorium is a major factor of social presence, it is not the only factor.

The emotional and psychological level of social presence experience is just as important. The degree to which an individual feels present with another in a mediated environment may not only be determined by their sensorial perceptions. In the context of mobile media, and the purposes for which they are used, the mental and emotional relationships maintained through telepresence in the mediated interaction are crucial.

Zhao (2003) differentiates copresence from telepresence in how copresence involves a mutual, shared sense of being together. This differentiation between the individual's sense of presence and a mutually shared sense of presence is important, particularly for this study. The detailing of different layers of social presence is defined further by Biocca, Harms, and Burgoon (2003). Biocca et al. (2003) distinguish three levels of social presence. The first, the “co-presence of the embodied other” (p. 13), defines the moments of awareness of another's “mediated body.” The second layer of social presence is the “subjective level” which is defined generally as the “psychobehavioral accessibility of the other” (Biocca et al., 2003, p. 20). This type of presence refers to one's ability to perceive the cognitive, psychological states of another within a mediated environment (Biocca et al., 2003). The measurable aspects of this type of presence can be broken down into four parts: “attentional engagement,” “perceived emotional interdependence,” “perceived comprehension,” and “perceived behavioral interdependence” (Biocca et al., 2003, p. 22-23). The third level of social presence defined by Biocca et al. (2003) is the “intersubjective” or “mutual social presence” (p. 26). This means the sense of awareness of presence for oneself as perceived from the other (Biocca et al., 2003). The most interesting part of Biocca et al.'s (2003) description of social presence is how it involves both the perception of the other as well as the

perception of self within a psychologically dynamic structure of mediated interaction. Hwang and Park (2007), within the CMC environment, assert that social presence is a convergence of three other experiences: copresence, mutual awareness, and sense of connectedness.

According to Goffman's (1963) notion that copresence is dependent upon sensorial information, it is assumed that the quality of the mediated sense of social presence depends on the richness of the medium. It depends on how well the medium can convey or reproduce the sensory information natural to communicating with another person in their physical presence.

The variance of definitions of copresence and social presence in the literature illustrate that they are concepts that are still just being fully understood. For the purposes of this study, the concept of social presence is defined as an inclusive term, involving both the perceptual access to another's emotional and psychological states as well as an illusory sense that another individual is present with the user. The term *social presence* will be used, because it is the term most often used in the literature for defining the mediated sense of being together. It is a flexible term that can be used generally and qualified in order to be more specific in certain scenarios. The term *copresence* is a valuable term to use to define the sense of mutually shared social presence. In the context of mobile media, there is a difference between an individual sensing the presence of another and both individuals sensing the presence of each other. A participant may feel a closeness to another person through using mobile media, but they may not actually feel that that sense is mutual. Using both terms to define subtly different experiences is valuable.

Another problem that is important to discuss is the problem brought up by Biocca et al. (2003) of differentiating between measurements of social presence and the “correlates” (p. 20) of social presence. Correlates of social presence include the attitudes toward the other individual in the mediated interaction (Biocca et al., 2003). Biocca et al. (2003) state that the measurements of social presence and the measurements of social presence correlates and effects should be kept separate. This concept is a problem when studying the relationship between telepresence and intimacy within a romantic relationship. There is no doubt that the emotions of one subject toward their significant other will influence the measurement of social presence experienced through mobile technology; however, this reality is also valuable for this study. Short, Williams, and Christie (1976) define social presence as involving the “consequent salience of interpersonal relationships” (p. 65). Biocca et al.’s (2003) concern relates to social presence as it is used to objectively measure a particular quality of a communication interaction. Short et al. (1976) also state that social presence is an aspect of the communication technology itself; however they qualify that statement further by saying that social presence is not only an “objective quality of the medium” (p. 66), but a subjective quality as well that depends on the attitudes of the individual user. In this study, I am seeking the subjective, emotional aspects of the telepresence experience. These emotional states and attitudes are an integral part of telepresence experience as it occurs naturally every day through mobile communication. Though social presence by definition depends on the use of technology and its objective characteristics certainly influence the outcome, the subjective experience of the phenomenon cannot be entirely determined only by the qualities of the technology. The experience of telepresence exists

within a social, cultural environment (Mantovani & Riva, 1999). Furthermore, the subjective, individual histories of the users can have great influence on the experience of telepresence.

An important sense of presence also involved in this study is the degree to which social presence, as defined above, exists beyond the actual mediated interaction. For example, telepresence might be felt beyond the phone conversations, game play, or texting when the mobile is in an inactive state. How much of this presence is a result of the residual influences of the mobile interaction? This particular type of telepresence closely corresponds to Lombard and Ditton's (1997) definition of "presence as medium as social actor" (unpaginated); however, it differs in one important way. Presence as medium as social actor refers to the instances when individuals interact with technology as if it were a social being with agency (Lombard & Ditton, 1997; Lombard & Jones, 2008). The difference is that mobile technology is understood not as having an illusory agency of its own, but channeling the agency of another real human. This type of telepresence will be further differentiated and expanded on in the next section.

### *Other Forms of Telepresence*

The mobile device allows for a certain kind of telepresence that has not been described in the literature on the topic. Particularly in a coupled relationship between two people, the mobile device can come to represent in an abstract way the connection to that person. Vincent (2005) describes a similar notion in her evaluation of the reasons for emotional attachment to cellular devices. She suggests that one explanation for the emotional attachment to mobile phones is how the phone can become an "icon for the

user” (Vincent, 2005, p. 119). Vincent (2005) further notes that it is the relationship between people that influences one's emotional relationship with the phone. In terms of the study of telepresence, this notion could be thought of as a *latent presence*, whereby the technology latently carries the presence of another human. This sense of presence relates in many ways with how de Gournay (2002) and others describe the uniqueness of the mobile device. With face-to-face communication, two people can communicate with immediacy and fluidity. The mobile phone allows for a close version of this form of communication. Though the computer can offer immediate communication with chat programs, the users are still subject to the stationary placement of the technology. The mobile phone remains nomadically close to the body throughout its movements in a wide space, while allowing for multiple kinds of immediate interaction.

A slightly different type of telepresence experienced through mobile phone use deals with the ways the mobile device becomes an extension of the user. This sense is similar to how McLuhan (1964) theorized that media act as extensions of human communicative abilities. This can occur even without the device actually mediating an interaction. This type of presence is not commonly discussed in the definitions of telepresence; however, it is an important one. The degree to which the technology seems to become a part of the user's body and self describes a different type of telepresence associated with mobile technology. The discourse on the ways the mobile becomes a source of latent presence and how the device becomes an integral part of the user prompts the question: does the technology itself act as a figure within the relationship? Perhaps the way to judge this is to ask what might happen if one member of the couple loses their phone. What will be missing beyond the actual physical object? Does the technology

itself come to represent in certain ways the other person in the relationship? Biocca et al. (2003) in some sense defined this phenomenon as the “threshold moment of co-presence” (p. 13). This phrase describes the moment when the technology, without conscious effort or awareness of the user, is “perceived as some being, a mediated other” (p. 13). This form of presence invokes the notion of the cyborg put forth by both Haraway (1985) in her “Cyborg's Manifesto” and Biocca (1997) in his article on the “cyborg's dilemma.” It involves the way technology can become an essential part of an individual’s sense of self. For Haraway (1985), this notion is about the conceptual blurring of boundaries between machine and organism. For Biocca (1997) it is about the mutual adaptation of both the human to the machine and the machine to the human.

Biocca (1997) emphasizes that the goal of communication technology development is to replicate the degree of presence and immediacy felt through face-to-face interaction. This is true in some respects with the development of video chats; however, with the diversity of other multimodal methods of mediated communication that have emerged over the past ten years, in certain contexts other forms of social presence may be equally desirable. For example, people might text in situations where face-to-face communication is not acceptable. Mobile devices allow parts of our selves to become present in places where they traditionally could not be (Turkle, 2008). A mother answering calls from her daughter amidst her professional peers is an example of this (Turkle, 2008). This scenario blends the roles of a woman in her private life with those of her work life (Turkle, 2008). In a similar way, the mobile phone offers a way to be present for intimate interactions in places where they traditionally could not happen, for example at the workplace while away from one’s intimate other.

In another function of mobile technology, texting and virtual chatting have been noted as being the source of alterations in the social understanding of presence (Ito et al., 2005; Katz & Aakhus, 2002; Turkle, 2008, 2011). Ito et al. (2005) studied Japanese youth cultures and their mobile phone use. They found that in certain social contexts, a sense of mediated presence occurred through a practice of texting those who are physically present (Ito et al., 2005). For example, being present at a party through texting friends who are physically there was an accepted and valuable form of presence according to the social group. Correspondingly, within the presence research community, Mantovani and Riva (1999) believe that the subjective perceptions of presence are culturally influenced. Presence, both mediated and non-mediated, is interpreted through a culturally constructed understanding (Mantovani & Riva, 1999). Mobile technology changes the social perception of being present in space and time. The cultural practices of mobile mediated communication influence how individuals perceive what it means to be present (Katz & Aakhus, 2002).

Each type of telepresence is important to differentiate for this study; however, it is important to understand that they should not be looked at as entirely distinct factors. They often may overlap with each other. Each type has subjectively varying degrees of influence and prominence within the mediated interaction. The different kinds of telepresence are components that together, holistically make up the telepresence experience. The study of mobile phone use, presence, and intimacy within couples requires an approach that can take into consideration the emotional aspects of the telepresence-inducing interaction. It also requires a method that can encompass the feelings and perceptions as they are interchanged between two people. A primary focus of

this study is the relationship between mobile telepresence and intimacy as they are experienced by couples. The concept of intimacy is the next focus of this literature review.

### **Intimacy**

In the context of non-mediated communication, intimacy has been studied and defined in terms of its objective, physical qualities such as facial expressions and eye-contact (see Argyle and Dean, 1965). For Argyle and Dean (1965), intimacy was studied as an objective quality of the interaction between people. This type of observable intimacy has been incorporated into studies of telepresence and social presence because it relates to measurable degrees of social richness afforded by communication technologies (Lombard and Ditton, 1997; Short et al., 1976). Other studies have explored the topic of intimacy and relationship satisfaction, and mobile communication and relationship satisfaction; however, my study connects the concept of intimacy with presence in mobile communication. Intimacy is a sense that involves both romantic emotions and the feeling of togetherness. Intimacy is a very personal emotion that has the power to make the sense of presence as well as absence most poignant. Though the concepts of copresence, social presence, and intimacy are related and overlap in some senses, they are not entirely synonymous.

The mediation of presence and intimacy support the continuity of romantic relationships during times of separation. Register and Henley (1992) point out that scholars have long disagreed whether intimacy is a measure of emotional togetherness,

emotional disclosure, or something else entirely. Register and Henley (1992) sought to define the concept of intimacy through a phenomenological perspective, broken into the various aspects of how it is actually experienced. These seven aspects were deduced from their qualitative research into how the concept is actually felt by participants (Register and Henley, 1992). Through this study they formulated a thematic structure of the concept of intimacy that included: presence, body, boundary, time, non-verbal communication, transformation, and surprise (Register and Henley, 1992). This is an important method for determining intimacy. Intimacy is a sort of feeling that is entirely subjective and so it should be subjectively defined. This type of method would allow the participants to define what they feel is intimacy in their own way.

Moss and Schwebel (1993) found in their search of the academic literature to define intimacy, sixty-one different definitions. These could all be categorized into three types: general, multidimensional, and operational (Moss & Schwebel, 1993). General definitions were derived from the various authors' personal perceptions of the concept (Moss & Schwebel, 1993). Multidimensional definitions were derived from the patterns of concepts collected through empirical research. Operational definitions were constructed as indirect means of measuring intimacy through behaviors that could be observed (Moss & Schwebel, 1993). Based on their synthesis of the literature they gathered, Moss and Schwebel (1993) concluded that "Intimacy...is determined by the level of commitment and positive affective, cognitive, and physical closeness one experiences with a partner in a reciprocal (although not necessarily symmetrical) relationship" (p. 33). In their in-depth explication of this definition, they emphasize closeness, both physical and emotional (Moss & Schwebel, 1993). Laurenceau et al.

(2004) include not only self-disclosure in their model of intimacy, but also the partner's responsiveness and the perceptions of this responsiveness. These texts emphasize the dynamic and complex nature of the concept of intimacy. They also highlight the centrality of the feelings of closeness and presence in the definition of intimacy.

Prager and Roberts (2004) propose that intimacy and its associated actions can be differentiated from other emotional concepts by three primary attributes: "self-revealing behavior, positive involvement with the other, and shared understandings" (p. 45). Self-revealing behaviors are behaviors that place a person in a certain state of vulnerability by disclosing private information or feelings (Prager & Roberts, 2004). Positive involvement refers to the attention given in full to the other during the communicative interaction (Prager & Roberts, 2004). These positive behaviors also include communicating positive emotions such as love and care (Prager & Roberts, 2004). Shared understandings refer to the ways in which the actors within the relationship feel as if they have access or awareness into each other's inner thoughts and deeper emotions (Prager & Roberts, 2004). Intimate interactions, which are comprised of the behaviors defined above, develop the foundation for an intimate relationship (Prager & Roberts, 2004). Prager and Roberts (2004) state that "intimacy regulation sequences" (p. 53) are the patterns of intimate behavior that over time develop the possibilities and nature of a couple's intimate interaction. Mobile phones used for communication between members of couples fits within this structure. The technology can be seen as a device that enables, even plays an integral part in, developing and maintaining intimate interactions. Telepresence, the mediated sense of togetherness, might play an important role in this process as well.

Prager and Roberts (2004) argue that a greater degree of intimacy is achieved

primarily through the individual's understanding of the “self-system” (p. 48). This self-system is made up of the individual's sense of physical self, their self-concept, and the interaction of these two concepts (Prager & Roberts, 2004). The physical self refers to the momentary senses of physical emotions (Prager & Roberts, 2004). Self-concept is simply the perceived, conceptual sense of self held by the person (Prager & Roberts, 2004). Vital to the development of intimacy are the expressed articulations of these aspects of the self-system (Prager & Roberts, 2004). In this way, communication plays an integral role in the growth of intimacy. An interesting intersection of the psychology of social presence and the concept of intimacy is how they both center on the communication of the self in relation to the other.

Prager and Roberts (2004) also bring up the idea that intimate interactions between coupled individuals are behaviors that are regulated and maintained through negotiations and practice. This occurs during times when a couple is continuously and physically present with one another (Prager & Roberts, 2004), but it might also continue during times of separation through mediation. Mobile media provide a way to maintain intimate interactions during times of physical separation. Mobile communication holds the possibility of becoming part of “intimacy regulation sequences,” which as Prager and Roberts (2004) assert are valuable “...because they become patterned in a couple’s relationship and begin to define the couple’s intimate relating” (p. 53). There are three main types of these sequences as defined by Prager and Roberts (2004). The first is the initial action of engaging and intimate interaction, using either verbal or non-verbal communication (Prager & Roberts, 2004). Next in the process is the withdrawal from the intimate interaction (Prager & Roberts, 2004). The third and final stage of the sequence is

the response to withdrawal (Prager & Roberts, 2004).

Intimacy can be interpreted in multiple ways; however, for the purpose of this study, it is understood generally as the sense of physical togetherness and emotional closeness between two people. It will also take into consideration the subjective practices of intimate communications. It will be defined subjectively by the participants during their interviews. This will allow them to express the influence of mobile media within their own context and understanding. Intimacy, as it is described by the literature above, involves the sense of closeness in both an emotional sense and a physical sense. It also involves the communication of sensitive topics and emotions. The varying ways participants communicate intimacy through mobile media can shed light on the value of mobile media in supporting a sense of telepresence. Also important and under study is the ability of telepresence to support intimacy within a romantic relationship.

### **Literature Review Conclusion**

The primary concepts being explored in this study are social presence, spatial presence, perpetual contact, and mediated intimacy. The other forms of telepresence examined in the literature review represent other forms of presence that may present themselves within the interviews. Social presence and intimacy are distinct concepts, although they overlap in the ways they both express a sense of togetherness. Within this study, I want to know more of the landscape of intimacy and presence associated with mobile phones within relationships. The intensity of emotions and senses of presence within romantic relationships make them a valuable context for studying these concepts.

Perpetual contact and apparatgeist can relate to multiple types of telepresence.

The theories involve the relationship between a technology's physical characteristics, its subjective uses, and how it is understood by individuals. Latent presence exists in the ways the technology serves to provide a constant sense of potential connection and togetherness. Through perpetual contact, the device itself becomes a constant part of the user's sense of social awareness. Perpetual contact also has the potential to relate to levels of intimacy between members of couples. It relates to the ways couples might attempt to maintain a sense of closeness through periods of separation. The details and validity of these ideas are in focus within this study.

## **CHAPTER 3**

### **METHOD**

#### **Design**

The research design was qualitative and utilized semi-structured interviews that lasted approximately one half-hour. The nature of the questions was open-ended. The value of using qualitative methods for this study is multifold. First, qualitative methods in the context of intimacy research allows for the researcher to probe at deeper questions (Allen & Walker, 2000). Certain topics of the interview may warrant more in-depth discussion with the subjects. The open-ended quality of the questions allowed for this kind of expansion to occur. Second, during the course of the interview process, the researcher had the flexibility to respond to the emotions and attitudes of the subject and adapt the questions of the interview accordingly. The researcher reacted to and took note of the experiences that appeared more significant to the subjects. Third, the experience of the concepts explored within this study was highly subjective in nature. A qualitative method was more immediately adaptable to this reality.

The variance in how individuals thought about their experience of telepresence sheds light on the benefits of a qualitative methodology. Being able to clarify questions and read the attitudes of individuals as they talked about their experiences was very beneficial. I chose not to explain or define the concept of telepresence to participants before their interview, because I wanted them to discuss presence, mediated presence, and mediated emotions in their own words and using their own experiences. This was important for grasping the realities of how these phenomena are experienced in the

everyday lives of individuals. The conceptual understanding each individual holds about that experience is entirely subjective. It is subjective even between individuals in the same relationship. It is secondly valuable for highlighting a number of specific experiences that can be further studied more extensively. This study left a lot of questions open for further study.

These interviews bring to light the stark difference between the scholar's perspective of telepresence experience and what is actually experienced by the individual in everyday life. Theoretically, telepresence can be experienced through mobile technology in multiple ways and in differing degrees, but the abstract notion of telepresence is not always in the awareness of the individual as they are experiencing it and so it was at times difficult for participants to recall the experience of it. This is especially true because this study dealt with a communication medium that is used routinely everyday and it is not a medium that is experienced in isolation that the individual can recall as a unique experience, such as seeing a 3D film. Using a qualitative method that centered on the participant's subjective awareness revealed the nuanced actualities of how mobile mediated presence is experienced in varying ways in daily life.

### **Qualitatively Measuring Intimacy**

Register and Henley (1992) state that their reasoning for exploring intimacy phenomenologically is to “give a systematic, descriptive account of the most fundamental aspects of an experience as reported by subjects” (p. 469). The emphasis is on gathering what the participants felt and understood of the concept without the researchers predefining it for them. Participants in this study defined in their own words what

intimacy means to them. The sense of intimacy that this study attempted to gauge is a difficult concept to define without reducing it to its parts. Marston et al. (1998) used a semi-structured interview technique and then proceeded with content analysis to determine a definition of the subjective experiences of love, commitment, and intimacy. Patrick and Beckenbach (2009) used narrative evoking questions in semi-structured interviews. They particularly focused on narrative theory in developing the questions because they wanted to evoke as much content as possible from the participants (Patrick & Beckenbach, 2009). In Patrick and Beckenbach's (2009) exploration of the literature on the definition of intimacy, they found it troubling that in many of the studies, intimacy was defined solely by the researchers and not by the participants. They found that categorizing the concept of intimacy into parts reduced its meaning for the participants (Patrick & Beckenbach, 2009). They found this to be very limiting in the search for what intimacy is for the participants (Patrick & Beckenbach, 2009). In accordance with this method and because of the possible subjective nature of the experience of intimacy as it is mediated through the mobile device, participants were asked to define what intimacy meant to them. This allowed them to answer the subsequent questions that dealt with how it is mediated through their mobile phones in a context they fully understood.

### **Qualitatively Measuring Presence**

There are multiple reasons for studying telepresence through a qualitative perspective. First, the methodology for studying the phenomenon should correlate with how the technology fostering it is generally used. By this, I mean that if a technology is used a certain way, every day or in certain situations, then the method for studying it should take this into close consideration. The power of qualitative approaches is that they

can study the phenomenon within its original context. The weakness of this approach is that it is not controlled enough to reach more universal aspects of how telepresence and intimacy are experienced, in this case, within relationships. This method limited the scope and external validity of the study; however, its benefits to the overall purpose of the research outweighed this limitation. The purpose of this study was to explore how presence is experienced and understood by the individual. Qualitative methods provide rich data for achieving this.

Lombard, Ditton, and Weinstein (2009) group the methods for measuring presence into two categories: objective and subjective. Objective methods for measuring presence involve measuring participant responses that they are not cognitively controlling, such as muscle tension and skin conductance (Lombard et al., 2009). These methods are useful for measuring states of telepresence within a controlled environment; however, they are not feasible for measuring telepresence as it occurs throughout the daily use of telepresence-inducing technologies. For the present study, the second category, the subjective measurements are more valuable. Subjective approaches include methods that require the participants to cognitively report what they are experiencing (Lombard et al., 2009). It is still a standardized approach with close-ended questions; however, Lombard et al. (2009) note that they “allow for a more intricate analysis of the underlying dimensions of presence because indicators of what are believed to be the various dimensions of types of presence can be included” (p. 3). The primary difficulty with using qualitative methods for studying presence is the lack of qualitative studies in the literature on which to model the present study. This study is rare in the sense that it studies telepresence through a qualitative method and point of view.

## **Interview Instrument**

The Temple Presence Inventory (TPI) is one of the few questionnaire instruments which tests for social presence and can be applied across multiple media (Lombard et al., 2009). Though it was developed as a quantitative instrument, the questions have been tested for validity and can be adapted for an interview format. The instrument has the ability to test for certain kinds of social presence, though it has not been applied to the mobile environment. The concept of intimacy was explored through questions that ask directly about experiences of emotional closeness and intimacy. The interview protocol can be found in Appendix A of this document.

## **Sampling**

I used nonprobability sampling, a combined convenience and snowball method. Participants were solicited in a number of ways. Fourteen participants were interviewed. Three were solicited from an undergraduate course. The rest were solicited through referrals from the social contacts of the researcher. I asked my friends, family, and colleagues to refer me to anyone who might be interested in participating. The letter of solicitation can be found in Appendix B. Subjects included in the study met the necessary following conditions. First, they had to be within a romantic relationship during the span of the interview procedure. Second, they had to own and use a mobile phone. Subjects were not excluded based on age, sexual orientation, ethnicity, or economic status. Participants were not excluded based on marital status or living arrangements. As a result, the sample includes unmarried couples who cohabit, couples who live at varying distances from each other, and a couple who is married. This variance in living situations

presented a limitation on the controllable aspects of the study; however, it added to the richness of the data collected.

### **Interviewees**

The group of participants represented a range of various contexts and unique experiences. The participants differed in phone type, relationship status, communicative behaviors, and attitudes toward mobile communication. Sampling a small number of individuals allowed for more depth in the exploration of certain experiences. This type of sampling provides, as Mason (1996) describes, “a close-up, detailed, or meticulous view of particular units” (p. 92). My sampling method allowed me to explore the nuances of each context. The highly subjective nature of the concepts examined in this study produced a wide range of particular experiences. The contextual details of each participant are described below. All names have been changed.

**Eliza** was referred to me for interview through a friend, who noted that Eliza has peculiar mobile phone habits. I contacted Eliza through email and asked if she would be interested in participating in my study and if she could connect me with her significant other to ask for his participation as well. Both agreed and scheduled interviews with me a week apart from each other. I interviewed Eliza over Gmail's video chat prior to interviewing **George** over video chat. Eliza and George have been a couple for about a year. George is 30 years old and Eliza is 27. George has had an iPhone for almost a year. Eliza has a phone with Internet capabilities, but it is not considered a smartphone. They live in separate houses, but near each other and see each other in person about 5 to 7 times a week. George considers himself a unique case, because he is from Bolivia and

moved to the United States as a teenager. He talked at length about how his communication styles changed when he encountered the common mobile practices of American teens. Eliza also considers herself a unique case, but for a different reason. Eliza feels different from her peers in that she feels she has less of a desire to have her phone with her at all times. She often leaves it at home purposefully when she goes out. George, on the other hand, keeps his phone turned on and very close to him at all times.

**Ed** was referred to me by my brother and agreed to be interviewed over Gmail video chat. His girlfriend was not interested in participating. My knowledge of her phone behaviors and habits are based on Ed's description of them. Ed and his girlfriend both have iPhones. Both are 26 years old. Ed and his girlfriend had been in a long distance relationship for about three months prior to my interviewing Ed. His girlfriend lives about an hour away and they see each other in person every other weekend. They have known each other for a number of years, but have only recently begun a romantic relationship. They communicate primarily through the computer on Google Chat, but during times away from the computer, they communicate using the iPhone messaging service as well as Apple's FaceTime. Ed keeps his phone turned on and accessible at all times.

**Bob** and **Diana** were referred to me through a friend and expressed interest in the topic of my study. I interviewed each of them over Gmail's video chat service. Diana is 27 years old and Bob is 28. They have been together for about two years. They live in separate houses in the same town and see each other 4 to 5 times a week. Bob has had an iPhone for the entire span of those two years, while Diana just got an iPhone about a month prior to interviewing with me. Bob keeps his phone on and is accessible during the day; however, it is mostly for his work and not as much for social contact. He also

mentioned a number of times during the interview that he does not use his phone to its greatest potential. Diana usually has her phone near her and turned on, but she said that she often accidentally leaves it at home or lets it run out of batteries.

**Claire** was referred to me through a colleague at Temple University. I contacted her through Facebook to ask for her participation and set up an interview time. I interviewed her in person at a coffee shop in Philadelphia. After her interview, she referred me to her boyfriend, **Jim**. Jim agreed to be interviewed the following week. I interviewed him in person at the same coffee shop. Claire is 32 years old and Jim is 31. Claire and Jim have been together for two and half years. Both do not have smartphones and expressed resistance to getting them both now and in the future. They live about a half hour away from each other and see each other in person about 3 times a week. They both expressed interest in seeing each other more often, but their current living situations prohibit it. Claire has a flip-phone that she received free with her cell phone contract four years ago. It is capable only of texting and phone calls. Jim also has a phone capable of only texting and phone calls, but his phone has a full QWERTY keyboard for easier texting. He uses his phone more often for texting than Claire.

I connected with both **Paul** and **Emily** by their responding to my letter of solicitation that I had my social contacts send out via email. Paul and Emily have been married and living together for four years. Both are 27 years old. I interviewed them each in person on separate occasions at a coffee shop in Center City Philadelphia. They both currently have iPhones and have had them for about two years. Previous to the iPhone, they both had non-smartphones. Paul talked about how the change from non-smartphone to smartphone in his mind represents a peculiar division of their marriage, as in there was

the time before the iPhones and the time after.

**Rosie** was referred to me by a family member who is her coworker. Rosie lives in Florida, is 24 years old, and has a Pantech Jest (a non-smartphone). I interviewed her over the phone, because she did not have a technology capable of video chat. Her boyfriend was not interested in participating. Rosie lives with her boyfriend of four years. He has an iPhone. Rosie does not consider herself a frequent user. She said that she usually only checks it twice a day and often keeps it in her purse. Rosie said that she frequently misses calls on her phone because she does not keep it close to her all the time.

**Mark** responded to my solicitation for participation within a course at Temple University. He is an undergraduate student. I interviewed him in person on Temple's campus in a quiet, outdoor location. Mark is 21 years old and has a TMobile MyTouch 4G (an Android smartphone). He has had it for a year and a half. He and his girlfriend (who I was not able to contact for interview) have also been together for a year and a half. They live about a half hour away from each other and see each other about 2 to 3 times a week. She has a mobile phone that is not a smartphone. Mark mentioned that they call more often than text each other.

**Nicole** responded to my solicitation for participation on Temple campus. She is 26 years old and has a Samsung Galaxy X (an Android smartphone). She has been with her girlfriend (who chose not to be interviewed) for just over a year. They have lived together for six months. Nicole considers herself a very frequent user. Her girlfriend also has a smartphone and is a frequent user.

**John** responded to my solicitation for participation within a course at Temple

University. Through him, I was referred to his girlfriend, **Amy**. Amy and John both have Blackberry Curves. They have been together for a year and a half. Amy is 20 years old and John is 23. John has had his Blackberry for the entire span of the relationship. Amy previously had an iPhone, but has had her Blackberry for about a year. Both are frequent users and keep their phones on them at all times. They live about forty minutes away from each other and see each other a few times during the week at the school that they both attend and on the weekends.

### **Procedures and analysis**

Interviews lasted approximately a half hour and occurred between March 8, 2012 and March 24, 2012. Eight interviews took place in person. These in-person interviews took place either on Temple campus or in a public coffee shop. Four took place over online video chat using Google's Gmail video chat service. Because of technical limitations, two interviews took place over telephone. In all cases, audio was recorded using the free version of Audacity software. Prior to beginning the interview, participants were asked to sign two forms. The first was an IRB required consent form for participation. This form can be found in Appendix C. The second form was an IRB required form for permission to audio record. This form appears as Appendix D. Participants were then briefed on the purpose of the study and the nature of the interview.

I interviewed participants individually in a place of their comfort and convenience. Doing so allowed them to feel comfortable expressing attitudes that they might not want to express in the presence of their significant other. Initial questions focused on the current frequency of the participant's phone use, and their history and

general habits of phone use. The interview then shifted toward questions that were more specifically aimed at their sense of presence and intimacy. Following the interview questions, participants were asked to expand upon any experience they felt was significant in relation to their mobile phone use.

Interview data were transcribed and analyzed according to a categorical indexing of themes. This process entailed examining the nature of how each individual reported that they experienced presence and intimacy and how these concepts related to their mobile interactions. Repeated readings of the transcriptions revealed emergent themes, some of which involved the various concepts discussed in the literature review. These included: Perpetual contact, social presence, latent presence, spatial presence, and mediated intimacy. Other themes that emerged, both unique and shared, are presented in the results as well. These include: utilitarian uses of mobile media, immersion, and various subjective attitudes and practices associated with mobile phones.

## CHAPTER 4

### RESULTS

The qualitative nature of this study allowed for rich data to be gathered from the interviews. I initially thought that there would be more obvious patterns in the uses of mobile media in the context of romantic relationships; however, after 14 interviews, the starkest pattern was subjectivity and uniqueness of personal mobile use and attitudes. Each couple's relationship represented a unique context of mobile use, connectivity, and telepresence experience. The most interesting result of the interviews was how participants interpreted and talked about the concept of presence through mobile technology. These responses generally fell into three categories: talking about the utility of mobile communication, talking about the emotional and sensorial affordance of various mobile communication modes, and talking about closeness in an abstract way. Participant responses did not always fall into only one category, but often overlapped depending on the question I asked and the context of their phone use. Each of these are discussed below.

Before proceeding, it is important to note that the research presented in this thesis provokes a number of conceptual quandaries about how telepresence is experienced in everyday life. From the first interview and until the last, it became evident that some individuals do not causally conceptualize how they communicate with their significant others and friends. It seemed that for some, this was the first time they had articulated on an abstract level their sense of presence through mobile technology. For example asking Bob to describe the sense of presence he felt while communicating with Diana over

phone was particularly difficult. After my first question on the topic, he responded, “So you’re saying do I? (there was a pause) I guess I don’t understand what kind of presence, so I feel her presence as being closer to me or that it’s distance, putting distance between us?” I rephrased the questions to ask about a sense of closeness or togetherness. He then said, “To be honest with you, I use the phone more as a tool than a social tool. Mostly, I mean I don’t tend to be a long phone talker and ... I much rather would be face to face and I guess, no I don’t really count phone time and face time. I guess I’m old fashioned.” This response expressed to me that Bob either did not experience a sense of presence with Diana while communicating over the phone, or was not aware of it. I did not want to push him into giving me a more detailed description of how he senses the presence of Diana over the phone for fear of eliciting an answer he did not truly mean. Other participants also often thought about their mobile devices in a utilitarian sense, talking about their routines of mobile communication and the practicality of mobile phones.

### **Utilitarian Uses of Mobile Media**

A pattern of use for the mobile phone was to coordinate future plans that would be carried out in the physical presence of each other. In answering various questions that focused on presence, immersion, and perpetual contact, participants often talked about their mobile phone’s utility purposes as opposed to its more abstract or meaning laden qualities. All participants who lived near their significant other and saw them more than just a few times a week reported that they used text messaging and short phone calls mostly for coordinating future plans. When participants knew that they would see their partner later in the day, they often did not use the mobile phone to mediate a sense of social presence so that they would feel closer to them, but instead to acquire a sense of

knowing where they are in their day and when and how they will meet up later.

I asked Paul to describe the sense of presence he feels while communicating with his wife over the mobile phone. He responded:

That's a tough question. I mean a lot of our (he paused). So, we've actually looked at our phone bills a couple of times and all of our phone calls to one another are always one minute on the bill, which means that they're less than a minute. And, always to one another they're just calls to say, 'Hey, where are you or what time should you be there?' And, my phone calls to other people are always much longer. So, I think also our texts are a lot shorter as well...not so much real conversation I guess and so when we're communicating that way, I guess I don't get a lot of a sense of presence...When I'm carrying on more substantive conversations with my friends from undergrad there's more of a back and forth, very quick back and forth, with texts, because it's an actual conversation that we could be speaking, so I don't know if that answers your question.

When I asked Paul if he gets a sense of presence with Emily when they are not actually using their phones, he talked about their sharing of their calendars on their mobiles, saying:

It does, because I think the calendar function does that a lot, right? Because, I can look at the calendar to see what she's done and what she has planned and, you know, I put stuff on the calendar that we're both doing and send out the invite to her and so that gets on her calendar. And, so we know exactly what's going on so

there is that sense of being able to communicate, or I guess be close even though we're not actually texting or talking. So, I think that there are certain aspects about it, about the phone that enable me to feel more connected to her even though we're not talking.

Paul's response expresses that he and his wife use their mobile phones more for a utilitarian purpose with each other. This use of their phones for coordination, however, for him still evokes a sense of presence with his wife. Emily and Paul, who both reported using text messaging with each other throughout the day more than other modes of mobile communication, also both reported using text messaging mostly for synchronizing their schedules or asking if the other is going to the supermarket. While I was asking Emily to describe the sense of presence she felt while communicating with Paul through various modes of mobile communication, she said, "We mostly use texting for quick information and sometimes for jokes, like sometimes we'll send funny things through text messages, but usually we use it just mostly for reminders."

When I asked Claire if she could describe the sense of presence she might feel while talking with Jim over the phone, she focused in part on their daily phone call routines. Claire said:

You know I'd rather be in person, but because we've been together a long time but we're still not living together or seeing each other every day, so I think that we have to replace that with a phone call. You know, I call him especially when I'm working, I call him every night when I walk my dog. That's like a fifteen minute conversation about our days, like couples normally would do.

I rephrased the question to ask if she felt a difference between talking with him and talking with others over the phone. She responded, “[Jim and I] have this habitual way of talking on the phone. I feel like it’s just so regular and comfortable and that’s like our routine that it feels very comfortable in that sense and I feel very close. But, other people I talk to on the phone sometimes I’m just not into talking on the phone.” Claire’s responses indicate both an understanding of the routine utility of mobile communication and the sense of closeness that a phone call can mediate.

Jim, in particular, held strong views about the use of his mobile phone. I asked him if his phone had Internet capabilities and he responded, “No, I’m against all that.” I asked him then to explain his reason. He said, “A phone should be for phone calls. I have a camera on there that I use pretty regularly because I forget my camera all the time, but that’s about it. I don’t like all that. It’s too much stuff to break, since I do construction.” Jim further expressed later on in the interview that he does not “want to trust in any one thing that much.” He went on to say, “I just don’t want to have to put that much faith in anything, especially a little electronic thing.” His girlfriend, Claire, shares this sentiment about phone technology. Despite these attitudes toward the use of mobile technology, both Jim and Claire expressed using their mobile phones for both conveying information with each other throughout the day and having more emotional conversations during their routine, nightly phone calls.

Both Eliza and George reported that text messaging in particular is only for conveying information to one another; yet, later on in the interview Eliza mentioned getting little texts that said “I love you” and that those were nice because it meant that George was thinking of her. Rosie does not keep in touch with her live-in boyfriend

throughout the day, but calls him on her way home from work to coordinate dinner plans. The process of coordination between members of couples was a primary pattern of use for the mobile phone. Some participants, such as Paul, Jim, and Claire, talked about using their mobile device with their partner in a utilitarian sense, yet still expressed that it helped them feel closer to them. Others, such as Rosie, talked about the utilitarian purposes of the phone when I asked about presence, but did not mention that it helped them feel closer to their partner.

Members of couples that did not see each other as often and spent longer periods of time talking over video chat or voice calls reported more of a sense of closeness as a result of that mode. Members of couples that tended to see each other in person more often tended to use modes such as texting more frequently throughout the day and reported a sense of closeness because of knowing where the other person is and what they are feeling. The concept of utility of mobile phone use was not an initial theme I explored in the literature prior to beginning the study. It was a theme that emerged throughout the interviews and expresses the nature of what mobile technology means to these individuals in their daily lives and relationships.

### **Social Presence: Emotional Data and Abstract Understandings**

A common response to the question of presence experience was to talk about the degree of tone and emotions afforded by different modes of mobile communication. There was an inconsistency in the sense of presence with one another throughout the day reported by participants and the purposes for which participants said they used their mobiles. Participants talked about how the content and context of the communication

influences the sense of social presence; yet they often contradicted themselves. For example, George and Eliza both adamantly stated in various ways that text messaging is not an emotional mode of communication and so they use it only for coordinating; but Eliza mentioned liking the cute messages that George occasionally sent her that told her that he was thinking of her.

When describing the sense of presence that they felt over phone conversations and texting, many participants talked about the degree to which they could interpret or sense the emotions and reactions of the other person. When I asked Amy to describe the sense of presence she feels with John while communicating over the phone, she responded:

I prefer talking on the phone to texting, but talking on the phone isn't always an option. So, in order, I'd rather see him in person, then Skype him, then call, then text. It's more of a sense of contingency. And, you can hear tones and inflections and it's helpful especially for things like if we're trying to talk about a sensitive topic that we don't necessarily agree on. You can't really have those conversations through text message because someone's going to misinterpret something and it's going to be bad.

George first began by saying that through texting, he does not like to have complex conversations and prefers to have those conversations in person. He said:

I like the physical presence and I guess seeing the full reaction of somebody, right, because when you're on the phone, you can hear the voice, but you can't see the full reaction of somebody. You don't see what their body language is saying and you don't see, I guess, how they're feeling. You could always

misinterpret something if someone is angry about something and you can't hear it in the voice, so that's why I'd rather do it in person if it's a deeper conversation.

The majority of participants reported a higher sense of presence with their partner while talking over the phone as opposed to texting. It may seem obvious to assume that the more sensorially rich a communication medium is the higher degree of social presence. This assumption was inaccurate, however, in Ed's case. Ed reported that because of personal reasons, he experiences the least amount of presence with phone calls and a higher degree with texting. Ed said:

So, phone calls are probably the least presence, if you want to say, when I'm talking with her, or really just anyone. I typically don't like talking on the phone with no visual cues. ...It's hard to hear what someone is saying, you know I have some low hearing loss and it's hard to hear if you don't expect what someone is about to say, you can't really hear it and respond quickly. Texting would be next because it's very real time. It gives you time to sort of digest what they are saying, and at least in Apple's iMessage system, you can see when someone is typing. So, it's almost equivalent to instant messaging someone on the desktop and that's what I'm really used to, not talking on the phone. So, I feel second as much presence there as I do on the phone. And then, video chat, obviously you have the audio/visual really strong sense of presence.

Later on in the interview, Ed further said that he could feel a reasonable amount of presence with his girlfriend through the texting service because they both make use of emoticons to express tone and emotion. Ed's experience reveals that the sense of presence

can be subject to personal preferences that correspond with specific technological qualities.

The sense of social presence experienced by the participants varied greatly on a subjective level. It seemed that some individuals generally felt more of a sense of social presence according to their own personal attitudes and psychologies, and not necessarily according to the qualities of the technology. It is, however, hard to determine whether participants actually felt more of a sense of telepresence or if some were just better at conceptualizing and expressing how they thought about their mobile communications. Diana was very clear and articulate about the specifics of how she experienced various forms of presence with Bob. She responded immediately and thoroughly after each question as if she had already thought a lot about her mediated communications with her boyfriend. Bob, on the other hand, had a hard time understanding what I was asking when I asked if he felt a sense of presence with her while talking or texting over the phone. It became clear that he thought in terms of the phone's practical uses and not its more abstract functions of mediating a sense of presence. Ed also talked at length about the variance in the sense of presence and connection he felt across various modes of mobile communication. Rosie, perhaps because she was not a frequent mobile user, had a hard time describing how she felt and understood a sense of presence with her boyfriend over the phone. Eliza, who also described herself as a non-frequent user, was easily able to explain why and how she experienced presence with her boyfriend over mobile communication. These differences indicate that the sophistication of the technology and its frequency of use might have less influence on the individual's understanding of their telepresence experience than their own subjective personalities and psychologies. The

ways participants described and the degree to which they thought abstractly about presence through mobile technology were unique to each individual.

An interesting pattern that emerged throughout the interviews was the relationship between a sense of social presence and the habits of perpetual contact. When going through the transcribed interviews for responses related to social presence and perpetual contact, the concepts often overlapped. For example, when participants talked about their sense of presence with their partner, they often talked about the frequency and ease of connecting with them throughout the day. Participants talked about knowing that they can reach their significant others at any time and that helped them feel a sense of closeness to them. Emily talked about sharing images with Paul through the iPhone application Instagram. She said she liked seeing his pictures and sending him her own because she can “see where he is and what he’s doing and thinking about and what he’s seeing.” I asked her to clarify what sort of presence that was and she responded saying, “...it’s nice to feel like you can feel connected throughout the day.” Emily was one of the participants that mentioned that she liked knowing that she can always get ahold of her husband because she knows that he will always have his phone with him.

In another example, the way that Ed described his messaging interface as one long, continuous conversation and the way that he always responded to his girlfriend’s texts throughout the day shows that his sense of social presence with her through this mode of communication is also tied with a sense of perpetual contact. When I asked Diana about the sense of presence she experiences through her phone with Bob, she said, “I feel very connected because I know I can access communication with him at any point and know that he will immediately receive a notification...” Diana’s sense of closeness

with Bob through texting is directly tied to her understanding of the qualities of that connection, which are in line with perpetual contact. Nicole's comment that she sometimes feels "numbed" to the physical presence of her girlfriend when they have been in mobile contact all day implies that the practice of communicating continuously evokes a sense of presence with that person.

The flexibility of social presence allowed by various modes of mobile communication was a negative issue for some participants. One of the reasons Emily gave for not wanting to communicate intimate emotions over the phone with her husband was that she could not be sure of the focus of his attention. I asked her if she communicated sensitive emotions with her husband over the phone. She responded:

I don't usually, unless we're away from each other for an extended period of time, because I like to see someone's face and their reaction to it. I don't want to just like (Emily paused). I don't know if he's paying attention when he's on the phone, so I don't want to be, like, spilling my heart out and he's just, like, watching TV, or checking something else.

Claire also mentioned the issue of being able to pay only partial attention to someone over the phone. This was one of her reasons for resisting phone communication in favor of in person communication. For Claire, the undivided attention of in person communication was important. At the end of her interview, I asked her how she felt about video chatting using an application such as FaceTime. She said:

Well, I mean there are a couple of things that I can think of that contradict myself.

A good friend's husband was in Iraq and he wasn't around for his baby being

born, and you know, so he gets to see this child at the first six months. And so, I think that's really pretty amazing that he really didn't miss out on that as much. So, that's really cool that that was available to them. But, I then I'm at work and my coworker is FaceTime-ing her boyfriend and they're arguing about where to put the furniture and I'm like why is this happening? I really don't think that this is important, you know? I think maybe the FaceTime thing is okay and maybe connects you back to that person because you know you have to sit down and have the conversation. When you're taking on your phone or texting, you can be doing a bunch of things and kind of have these halfway conversations, but with FaceTime you have to sit back down with them. You like really have to sit down and look at them. Like when people had landlines, they had to sit down and have the opportunities to talk to someone on the phone and I feel like no one sets up that time anymore. But, FaceTime would do that. So, maybe it's about figuring out how to bring that communication back.

These responses relate to social presence and copresence because they involve the individual's awareness of the attention of the other person. Though phone conversations involve more awareness of the other's current state than texting, they still allow individuals to mentally be present in more places than one, as Gergen's (2002) "absent presence" and Turkle's (2008) notion of "continuous partial attention" describe. The participants were concerned about the uncontrollable nature of attention made possible by certain modes of mobile communication. Video chatting involves a mutual awareness of the other's attention. In this case, the attention of the other is understood by these participants as being an integral aspect of connecting with them over a mobile device.

These responses help put into context the realities of social presence and the value of using the concept of copresence. Social presence was differentiated from copresence in how participants distinguished between feeling a sense of closeness with their partner through being able to contact them and feeling a sense of closeness through communicating with them in a two-way conversation. According to these participants, a mutual awareness of each other's emotional state was necessary for participants to feel comfortable communicating intimate emotions. Mobile media modes of communicating afford varying degrees of social presence and copresence. In this context, social presence meant the varying awareness of another's psychological state, emotional state, and bodily expressions. Being in the physical presence of another allows all of these qualities; however, in the mobile media context, social presence is not necessarily an awareness of physical closeness, or shared space. The term copresence, then, is valuable for expressing the type of social presence that involves a mutual sense of shared presence.

### **Immersion**

The concept of immersion was probed in multiple ways as a factor of telepresence experience. As mentioned in the literature review on telepresence, the concept of immersion connects with the sense of spatial presence. Throughout the interviews, it emerged as an interesting concept in itself, as it was unique to each participant. Participants were asked about their level of distractibility while texting and calling. They were also asked how often they respond in physical or audible ways even though the person with whom they are communicating cannot see or hear them. Participants were asked if they ever stop being aware of the existence of the mobile device when they are communicating through it.

Every participant answered that they laugh or smile at humorous texts from their friends and significant others. For the question about responding in a physical or audible way to a text message even though the recipient can not hear or see them, Ed responded:

Just like to myself? Sure, absolutely. She's very much into humor and likes this idea that she's some sort of comedienne and she likes trying out jokes on people, so I'll often laugh out loud or respond. Or, if she just saw something that was just absolutely mind boggling... you know I'll probably audibly gasp or something.

When I asked Bob the same question, he said, "Oh, I certainly do. Pretty much there's always some emotion every time I look at a text message...unless I'm consciously thinking about not having emotion." Diana responded to the question saying:

I definitely have sort of giggled out loud before. I kind of think that goes along with when I'm doing anything and I don't realize that I'm sort of not necessarily talking, thinking out loud, but I mean even if I'm just going about my day on my own at work sometimes I'll find myself reacting to things in an audible way even though I'm not taking directly to somebody.

As noted earlier, Bob stated that he does not experience a sense of presence with Diana through mobile communication and yet he said that he would respond with emotion.

Diana's response to the question also indicates that her expressing emotion without the possibility of another experiencing it happens even when she is not in communication with another. These responses indicate that this behavior may, or may not, be related to the sense of presence in this context of mobile media. What is not clear is whether this response is a result of telepresence or if it is just a natural human response to something

that is funny. It is the distinction between responding because of the illusion that the other person might hear or see you, or responding because it is psychologically natural to do so, as laughing at a newspaper comic when no one else is around.

All but one participant reported being always aware of the phone. The majority of individuals I talked to mentioned the burden of holding the phone up to their ear, or the troubles of texting, as some of the reason why they are always aware of the phone. The individual who reported occasionally losing awareness of the phone while he is communicating over it was John. John reported that when he uses his Bluetooth earpiece while talking with Amy, he often forgets that she is not actually in the same space as him. John said with his Bluetooth in his ear, "I'll be doing whatever just taking on the phone as if she's right next to me." I asked him to describe this further and he said, "like she's walking right next to me while I'm doing my thing every once in awhile I'll realize I'm on the phone and can't do certain things, and she's not actually seeing the things I'm seeing." This behavior involves not only telepresence as immersion, but also telepresence as spatial presence and social presence. During this interaction, in John's perception, Amy is transported into his space and he has a sense that he is together with her experiencing the same things he is. This was also the only time during my interviews where I felt someone had experienced a true form of telepresence as it is defined in the literature.

When participants talked about a sense of presence with their partner through mobile communication, it seemed less like the telepresence described in the literature that studies it as it is experienced in contexts such as virtual reality or video games. From the way participants talked about the concept, it seemed that they did not understand it as the "illusion of being there" or the perception that technology was not involved in the

interaction. Aside from John's Bluetooth experiences, for most participants the experience more acutely centered on an emotional sense of connection and closeness. This divergence from telepresence as it is described in previous studies is likely because of the context of experience. The context of this study is romantic relationships and mobile technology. Emotional connection with another being is central to romantic relationships. Mobile technology's primary purpose is to connect people with one another.

### **Spatial Presence**

Because of its abstract quality, spatial presence was a difficult concept to examine qualitatively without leading the participants into certain answers. It was probed indirectly through questions that also probed for social presence. I asked participants if they ever stop being aware of the phone itself when they are communicating with it in various ways with their partners. If participants answered affirmatively, I asked them to describe the sense.

John's Bluetooth experience, which was described in the above section, informs the concept of spatial presence as well. When I asked John if he ever stops being aware of the phone itself when he is communication through it. He responded, "Oh yeah, especially because I'm a big fan of my Bluetooth. I'll be doing whatever, just talking on the phone as if she's right next to me." Aside from John, all other participants reported that the mobile device is always in their awareness during both voice calls and texting interactions. Many modes of mobile require active use of the user's body. The phone is held and looked at. When I asked Mark the same question, he responded, "Yeah, I do

sometimes lose the sense that I'm on the phone and I just think that I'm talking. I don't really think that I'm on the phone talking." I then asked him if it was the same when texting. He said, "No. Texting is different. Texting, I know I'm texting. Making mistakes." Nicole responded similarly about texting and said, "...you have to be aware of it because you're typing and stuff, so I feel like I'm in constant awareness that it's there." For Emily too, the phone was always in her awareness, even over voice calls. She described the time when Paul was away for the summer and said:

That's one of the things over the summer when he was gone, after a certain point it became hard to have, like, serious conversations because we were just on the phone and I think that it's definitely a barrier. It was to me anyways and I don't know, it just seemed strange. It just seems like you're always aware that you're just on the phone.

It is interesting that for Emily, the phone became a barrier in itself because of the lack of social and spatial presence it allowed her to feel with Paul. Her emphasis of being "just on the phone" and not wanting to have serious conversations indicate that she did not feel a sense of emotional closeness through this medium. It also seems that these limitations of the mobile phone can highlight the perception of physical distance between two people. This example, as well as the process of John feeling as if Amy was in the same room as him, blurs the line between spatial presence and social presence as transportation shared space. John was not perceptually transported. Amy was, but only in John's perception and not in her own perception. It was not a mutual feeling of spatial presence. For social presence, this is even more difficult to distinguish. During a voice call, the distant communicator's voice is disembodied and their form must be imagined if it is to

exist in the mind of the other. Mobile communication disembodies the receiver, but it does not disembody the user.

Another possible reason why spatial presence is complicated to examine in this form of study is because mobile communication centers on the body. The user's perceptions are not transported to a virtual space. The mind may seem in some small way transported to another space besides the immediate physical one during times when individuals report being immersed in conversation so much that they do not easily get distracted by actions going on around them. The problem with this thinking is that it confounds the concepts of telepresence and attention. It could also just be that the individual's attention is not on the immediate surrounding and so they are less aware of it.

In the literature review I discussed how there theoretically could be a sense of space within the digital communication interface, such as a text message interface. During my interviews with participants it became clear that individuals do not casually think about these interfaces as spaces. Visualizing them as spaces in which both individuals can be present with one another involves a certain level of abstract imagining, and the process of getting participants to think about their interactions this way edged too close to leading them into certain answers. This is a prime example of the disjunction between how a telepresence researcher understands digital space and how the everyday individual may understand the digital spaces of their mobile devices. Another variable is that throughout my interviews, and perhaps it was due to the topic, individuals thought in terms of emotionally connecting with their partner through mobile media. This line of thinking relates more toward social presence than it does toward spatial presence. Participants often spoke in terms of feeling close and connecting, but from the context of

the responses it was a sense of emotional closeness over a sense of physical closeness.

When I asked John to describe in more detail whether it was more of an emotional or spatial sense of presence that he experienced with Amy, he responded saying:

It's a little bit of both. I'll actually feel kind of disconnected if I haven't heard from her in a while.... So, I feel like there is that almost physical closeness there and I think that's added a lot to our relationship and considering that we don't just live down the street from each other.

John's response is telling; however, my phrasing of the question could have influenced his perception of spatial presence through the mobile phone. It is unclear whether he would have thought of the situation in a spatial sense without my phrasing it as such.

### **Perpetual Contact**

Katz and Aakhus (2002) describe the progressing spirit of mobile technology as perpetual contact. This refers to the ways people use their mobile devices to stay continuously connected to each other with the option of communicating to one another as constantly available. Within this study, the concept of perpetual contact was probed in different ways. Participants were asked how often they are able to be contacted, how often they turn off their phones or leave them behind. They were also asked, if they had smartphones, if they used push notifications for emails and other social networking messages. Push notifications are when the phone user is notified immediately when they receive any sort of communication or when there is some activity on their account. For example, if they are tagged in a photo on Facebook, their phone will notify them through an audible and/or visual message. Because this study focused on the context of romantic

relationships, participants were asked how often, and in what ways, they keep in touch with their significant other. The different attitudes toward behaviors of perpetual contact were an emergent and interesting theme. What was interesting was not so much how participants practiced, or did not practice, perpetual contact, but how they each thought about the concept itself.

Having a smartphone that allowed for a multitude of ways to stay connected to another individual did not always seem to be the primary influencing factor that promoted a behavior of perpetual contact. Some individuals without smartphones still texted often and kept in touch throughout the day. Some individuals with smartphones capable of online chats and social networking did not use these functions. Perpetual contact was not always desired. George talked about the importance of both keeping a connection alive through mobile communication when the other is far away, and also the importance of missing someone and nourishing a sense of longing for that person. Bob also supported a practice of non-perpetual contact with one's significant other, but for a different reason. For Bob, it was important to not always talk on the phone because he felt that he would then have nothing to talk about in person. Nicole too hinted at this when she said, "When you are in contact all day it kind of numbs the sense of when you are physically together and in contact with each other. You feel like you've been in that person's presence all day and you maybe don't get as excited so see that person later in the day because you're talking with them all day." This remark is also pertinent to the concept of social presence. It indicates that for her, the sense of perpetual contact was also a sense of telepresence with that person. Nicole felt as if she was in the presence of her girlfriend through mobile communication to a degree that led to her feel "numbed" by

her girlfriend's presence when she was face-to-face with her.

An interesting behavior shared by nearly all participants in this study is contacting their significant other via other means, most often email, when they forget their phone at home in order to let them know that they are without their phone. I asked George how he felt when he was separated from his phone. He responded saying:

Well, it's happened a few times in the past and it's kind of odd to be without it.

You definitely feel like something is missing and usually the first thing I do is get on the computer and send a message to close friends and family saying that I forgot my phone so that nobody worries.

Even Claire and Jim, who both resist the notion of hyper-connectivity via mobile phones, contacted each other when they were without their phone. Claire said:

I'm fine with it. I mean I've forgotten my phone a couple times. I'll go through a phase of forgetting my phone a few times, like, in a course of two weeks I'll forget it three times. Like, I just need a break from it and I have everybody's phone number in my wallet, written down because I do it so often. Then I'll call [Jim] from work or from my roommate's phone and say I don't have my phone on me, you know, I'll see you later or something.

This behavior is evidence that these individuals sense the necessity of a status of perpetual contact. They are aware that their partners expect them to be able to be contacted. Both Rosie and Mark also reported that they are known to their friends as people who commonly do not answer their phone. Behaviors associated with perpetual contact were specific to individuals.

Participants expressed having communication routines. Their significant others come to know how and when they communicate. All participants reported knowing their partner's mobile communication habits and many reported having daily communication routines. Claire and Jim both said that they had long conversations with each other over the phone on nights that they did not see one another. Bob and Diana both talked about texting each other in the morning to wish each other a good day and then catching up again in the evening over text or brief phone calls. Rosie's main use of her phone was to routinely contact her boyfriend to discuss evening plans and let him know that she was on her way home. Mark said that he calls his girlfriend at least twice a day.

Another pattern that can be understood as an example of perpetual contact behavior is how participants came to know their partner's, as well as their partner's perception of their own, communication habits. For Nicole, when I asked her if she considers herself a frequent user of her phone she responded saying, "Yes, [my girlfriend] might consider it too frequent." Later in the interview, Nicole also noted her girlfriend will mention the times when she does not text her during the day. This response hints that Nicole's texting behavior is known and expected by her partner.

I asked Emily to describe if she felt a sense of presence with her spouse even when she was not actively using her phone and she responded saying, "I like knowing that I can always get in contact with him because I know his phone is always in his pocket." Paul, during his interview, corroborated this when I asked him to describe his personal relationship with his phone. He said that he always carries it in his front pocket, will never leave home without it, and keeps it in a very accessible position on a table when he sits down for a long period of time. Another example of this pattern is how Jim

is aware that Claire both often forgets her phone at home and cannot always respond with immediacy when she has a busy day at work. Jim also expects the daily, end of day phone call from Claire on nights when they are not together. He said, "...I can't just come home and see her at the end of the day. Knowing that she's going to call me when she's done work makes me feel better that I'm not seeing her that day." The communication routine that Jim and Claire have helps to maintain their relationship when they cannot see each other in person as frequently as they would like to.

It seemed from a number of comments during the interviews that participants felt that the state of hyper-connectivity is the norm in today's culture. More than a few interviewees expressed how they were different than everyone else because they resist that kind of connectivity. This in itself is evidence that perpetual contact is in the cultural consciousness. Eliza made a point to mention that she thinks that using mobile phones while out at dinner with friends is the "rudest thing on the face of this Earth." A few other participants mentioned that they do not use push notifications because they do not want to be one of "those people who beep all the time." Even though this perception of the perpetually contactable person is very real in the minds of these individuals, few of them admitted to being perpetually contactable. Jim was the only participant to report that he picks up the phone every time it rings. Mark stated that he cannot be comfortable without his phone, but he will frequently miss calls on purpose. Paul, who keeps his phone close to his body at all times, said that he will often not pick up the phone when individuals are calling with whom he feels he would rather text. He is an example of someone who is perpetually able to be contacted, but who strategically chooses how he communicates.

## **Latent Presence and Mobile Device as Extension of User**

The interview data contained conflicting opinions regarding how individuals thought about their own devices and their partner's devices. I asked participants if they ever have a sense of presence of their significant other when they are not actively using their phone. The responses varied according to the participants' use of their mobile device and their unique attitudes toward its use. Participants also mentioned these attitudes in response to other questions posed to them about the difference in their use and their partner's use of their mobile phones.

Both Jim and Claire hold strong opinions about the power of their mobile phones. Both reject the idea of becoming increasingly connected to it, as it becomes a more and more advanced machine. They both prefer to see it for its utilitarian purposes; however, in their responses to a number of questions, it became clear that the mobile phone was an integral part of their relationship. When I asked Jim about sensing a presence with Claire when he is not actually using his phone, he responded, "...all day long I'll think of her when I see things or hear things... but I don't know if the phone facilitates that." As relayed above, when I asked him to describe the roles of their mobile phones he said, "Knowing that she is going to call me when she's done work makes me feel better that I'm not seeing her that day." These responses indicate that, for Jim, the physical device does not carry any representation of presence, but the meaning of the phone and the roles it performs in their relationship holds a sense of social connection with Claire.

Both Emily and Eliza reported that their partner's devices were always connected

to them in both positive and negative ways. Emily talked about how her husband's phone is always in his pocket and so she knows she can always get ahold of him. In her eyes, however, his phone use was at times excessive. Eliza too mentioned George's intimate relationship with his phone, saying that he brings it everywhere and even sleeps with it right next to him on the bed table. She said that she appreciates its utility, but he "treats it like it's a human heart, that's beating, that's connected to him." Both Emily and Eliza view their significant other's devices as integral parts of them, extensions of their selves.

For both Diana and Amy, their own device, because of its resemblance to their partner's device, reminded them of their partner. Diana's boyfriend, Bob, has had an iPhone for as long as she has known him. She only recently got an iPhone. She mentioned that whenever she looks at her phone, she thinks of him. She said, "I feel like I just have my own version of his phone. It's funny because when I look at my phone, I think of him because he's also who I communicate most with on it." Amy too talked about thinking about John when she looked at her phone, because they both have the same phone, he helped her get her phone, and the phone is a big part of their relationship. For these participants, the phone technology itself can have multiple meanings for both its user and its user's significant other.

### **Intimacy and Mediated Emotions**

I asked each participant how they would describe intimacy in their own lives and experiences. The majority of subjects discussed a sense of emotional closeness. Another major theme was the capability to understand one another and be aware of each other's moods. These themes are in line with how the concept of intimacy is defined in the

literature. One participant, Bob, was unique in his response and said, “I guess it’s kind of transparency, to both be able to tell each other how they feel and come to them with problems and be able to solve them constructively and rationally. I guess a lot of that is not bringing emotion into it.” Though Bob’s response evokes a sense of mutual empathy, he specifically states that he feels that emotion is not a major part of it. The emotional sense of intimacy relates to the sense of social presence discussed in the literature review. Social presence entails an awareness of another person’s emotional and mental state.

I asked participants to describe the role their mobile phones played in mediating their sense of intimacy with their partners. I asked them to describe in what ways mobile media might hurt, help, or not affect it. Another question that I asked in this same context was how they felt communicating sensitive, intimate emotion over texting and voice calls. Nearly all participants reported that they did not like to text their partners if the content was more intimate and sensitive in nature. Both Diana and Rosie noted that they like the quality of text messaging that allowed them to write out their complicated feelings; however, both also expressed that they would still rather talk about sensitive emotions while in the physical presence of their significant others. The most often reported reasons for not wanting to use text messaging for intimate conversations were the lack of emotions conveyed over text and also the lack of ability to fully read their partner’s facial expressions and gestures. This was the case across the variance of phone type and communication style.

One major trend that emerged throughout the interviews was the case that text messages are easily misunderstood. Nearly all participants noted that text messaging does not carry a person’s moods and emotions well, so they often used it for purely

informational communications. This topic came up often when I asked about the sense of presence participants felt through texting with their partners. A number of participants stated that they do not feel a sense of presence because they use it only for coordinating things and not for trying to communicate feelings and sensitive, emotional topics. This was contradicted, however, in the ways a few participants noted that after they got to know their partner well, they began to be able to picture them and hear them when they received a text from them. When I asked Nicole about sensing her girlfriend's presence through text messages, she responded, "...it evolved into being able to picture her or, like, hear her tone through the text, so there's that kind of closeness that can be there." In another example, Ed discussed using emoticons to express emotions during texting conversations; however, he still preferred to talk about more involved topics over video chat or in person.

Participants reported varying opinions on whether their moods were more affected by in person or mediated communication. The group of responses generally fell into two categories. There were those who felt that because mediated interaction was able to communicate less emotion, they were less influenced by their partners' emotions. Others reported that their moods were more affected by mediated interaction because of a lack of power to control the communication. George, for example, discussed how during an argument over the phone, the other person could too easily hang-up and leave the conversation. Nicole talked about feeling more helpless because she could not be there with her partner to physically comfort her during a difficult time.

For the question of the role of mobile devices in mediating a sense of intimacy, couples varied according to their relationship contexts and their unique understanding of

the concept of intimacy. I asked Paul to describe how he thinks mobile phones influence the intimacy within his relationship. He responded:

I think sometimes [Emily] might think that it does, because I think that sometimes she thinks that the bar for things that we individually think that conversations that relate to this thing called emotional intimacy is different. So, mine is higher. It's about things, like you know, something that really made me upset or something that I really feel strongly about. For her, that bar is sometimes a little lower, so it's about listening to what she did in a given day and if I'm not doing that, but instead I'm reading my Twitter feed, then to her the phone becomes kind of a barrier to this intimacy. But, to me, I think I have a pretty good sense of, for myself, these conversations that go over this intimacy barrier that are like the real hallmarks of a relationship. And, I don't feel like the phone interferes with those at all, but I do think that they get in the way of the more mundane, day to day, conversations, which I guess are important as well in a relationship.

His wife, Emily, reported that she feels that it helps to know that she is always connected to him and can always reach him; however, she also said that she thinks the frequency of Paul's mobile use during certain times can hurt their intimacy. In a different context, both John and Amy reported that mobile phones have played an integral role in developing their intimate relationship. They both talked about the phone being very important because of their physical distance from each other. The relationship between intimacy and the mobile device was highly subjective to both the context of the couple's relationship, their mobile practices, and their beliefs on intimacy.

## CHAPTER 5

### DISCUSSION

#### Revisiting Research Questions

Before discussing the abundance of complicated issues brought up by this study, I want to first address how the data connects with my initial research questions. This study first sought to explore the relationship between telepresence and intimacy in the context of mobile media use by romantic couples. From the data gathered, it is evident that this relationship is highly varying according to a number of factors. There was not a clear difference between the telepresence reported by those with smartphone and by those with non-smartphones. There were subtle differences in the way telepresence was experienced between couples who live with each other and couples who live far from each other. There was much difference in the degree of telepresence experience reported among participants; however, it is difficult to determine the underlying reasons why. Certain individuals might be more acutely aware of their experiences than others and able to more articulately describe them. Diana, for example, was particularly extensive in describing the nuanced ways she experienced presence through her mobile phone. Her boyfriend, Bob, on the other hand, was far less descriptive and less abstract in his responses on the topic of presence through mobile technology. It is unclear whether this is a result of him not being aware of the experience or not experiencing it to the same degree.

The second research question asked how intimacy influences the experience of telepresence. The data from the interviews answers this question in two ways. First,

couples in which members live further away from each other and see each other less often tended to have longer phone or video chat conversations. Though many of them reported that they did not prefer to communicate intimate topics over their mobile phones, they reported that speaking over the phone helped them to feel closer to their partner.

The second way the data informed this question was in the context of couples who lived together, saw each other more often, and primarily used their mobile phones to coordinate with each other. In this case, participants maintained a sense of closeness with each other by texting, coordinating calendars and plans. This sometimes related to the qualities of the technology they used. For example, Ed is in a long distance relationship and he talks with his partner for longer periods of time after the workday through video chat. He also keeps in touch with her throughout the day through texting and desktop based online chatting. Both he and his partner have iPhones and work within a computer centered job. Emily and Paul live with each other and do not spend long periods of time speaking with each other over the phone, but they keep in touch with each other throughout their days through short voice calls, texting, a sharing of online calendars, and Instagram. All of these actions are supported by their iPhones. Rosie, on the other hand, lives with her boyfriend but does not keep in perpetual contact with him throughout her day. She does not have a smartphone, though he does. In some instances, the phone technology supports a perpetual contact and social presence with each other. Similarly, in some instances, relationship context influenced certain behaviors. In all cases, the sense of telepresence occurs in the form of social presence, the mediated sense of being connected to another's mental and emotional state.

The third research question was the reverse of the second—how does telepresence influence the mediation of intimacy in a relationship? All participants reported that they prefer to communicate more intimate emotions in the physical presence of their significant other. Within the relationship context of couples who were not in the physical presence of each other every day, individuals more often communicated intimate emotions over longer voice or video calls. The phone acted as a tool to mediate intimate communications during times when couples could not do so in person. This was expressed by John and Amy, George and Eliza, Claire and Jim, Mark, and Ed. All but two participants stated that they would not have serious, emotional conversations over texting. Those two individuals who differed from the group, Diana and Rosie, explained that they would still prefer to have important conversations in person, but texting allowed them to write out their feelings and thus make better sense of them. Texting was primarily used to maintain a sense of connection with a significant other throughout the day on a routine basis, so it supported a sense of social presence in the form of perpetual contact and latent presence. The capabilities of the technology to facilitate the sensation of telepresence supported the mediation of intimacy in the relationship.

The relationship between the concepts of social presence, latent presence, and perpetual contact inform the fourth research question of this study that sought to understand the role of perpetual contact within a romantic relationship. Perpetual contact along with the sense of latent presence can work to support the sense of social presence felt by couples who follow daily communication routines. The concepts of latent presence, social presence, and perpetual contact are all separate concepts, yet the interviews revealed that they relate to each other and overlap in how they are

experienced. For these couples, social presence was represented by the degree of closeness felt, primarily emotionally, but also physically through mobile media. As was explained in the literature, this had a lot to do with feeling connected to another's current emotional state through a mediated system. This was supported by the habits of perpetual contact, that is, the choice and ability to be contacted and connected with another throughout the day or on a routine basis. Latent presence as it was explicated in the discussion of literature became evident in the ways participants predicted and perceived their powers to communicate because of their partner's habits or behaviors of perpetual contact.

### **Perpetual Contact, Telepresence, and Latent Presence**

Latent presence should not be thought of as a true form of telepresence, because it does not entail the active experience of the phenomenon. Though it involves the existence of technology in the context of communicating, it does not necessarily depend on the technology's active use. It exists as a result of the past experience of telepresence and the predicted future experience of telepresence. The abilities of the mobile phone to support both telepresence and perpetual contact allow latent presence to develop. It can be thought of as a proto-telepresence, where an individual senses a closeness to another person because of their habitual experiences of social presence. It is evident in the ways participants conceptualized the roles of their mobile devices in their relationships. They use their mobile phone routinely to communicate with their significant others and so this habitual connectedness in itself supports a sense of closeness, a sense that they are in touch with the current life of another. The role of the mobile device is only one aspect of latent presence. The process is nourished by the emotional and physical closeness

developed within a close relationship. Latent presence is sustained through perpetual contact, the apparatgeist formed within the relationship, and the emotional ties between individuals.

This study illustrates how, and some of the different ways, individuals come to understand mediated presence. In trying to ask in various ways how people feel a sense of presence while using mobile media, it was evident that individuals interpret the sense very differently from each other. Mediated presence can mean very different things for different people and in different contexts. Partners who live farther away from each other and desired more presence with each other might be more inclined to want to experience a mediated presence in the form of telepresence. On the other hand, partners who spend a considerable amount of time in the physical presence of each other might be less inclined to want to experience telepresence with each other. Experiencing the present of one's significant other via mobile technology was interpreted and described in ways unique to each participant. Each participant held a different understanding of what presence meant to them and each described it in different words. Exploring these differences is valuable for understanding the nuanced realities of telepresence in the context of mobile technology.

An important value of this study is how it emphasized an emotional quality as a dynamic in the experience of telepresence. Intimacy captures the sense of both emotional and physical closeness. The physical sense is evident in that individuals preferred to have more intimate communications in person, in the physical presence of one another, giving them full awareness of another's full communication powers. This study explored how willing individuals are in having intimate conversations over various modes of mobile

communication. Intimacy became a helpful marker of social presence. The emotional sense of intimacy relates to the sense of social presence discussed in the literature review. Social presence entails an awareness of another person's emotional and mental state. For participants, mediating intimacy related to the sense of social presence and copresence that they felt through their mobile interactions. Mobile media was never a choice method for communicating intimate emotions. This perhaps means that intimacy as a concept can be used as a key factor in testing the interpersonal value of telepresence via a communication medium. Intimacy involves the need to experience and access in real time the full reactions and emotions of another. Fundamental is the degree to which individuals afford the communication medium the power to mediate these emotions.

## CHAPTER 6

### CONCLUSION

#### Limitations and Scope

Because this study is qualitative and small in scope, it may be valid only for the particular culture and time within which it was conducted. Despite this limitation, the study is valuable as a model for how presence can be explored through new media platforms that do not fit into the traditionally studied virtual reality. Though focusing solely on intimacy has its benefits, it is also a limitation in that it is just one of the many sets of emotions experienced between romantic partners. The addition of more emotions, such as love, happiness, and satisfaction, into the study might have confused the core focus on presence and telepresence.

Despite the limitation described above, intimacy is an apt concept for focus because it closely pertains to the experience of presence. Both intimacy and social presence involve the notion of closeness, both emotional and physical. Prager (2000) discussed a number of external and internal factors influencing intimate interactions including the personality of the individual, the specific characteristics of the relationship, and sociocultural contexts. The qualitative design of this study takes these factors into consideration. The concept of intimacy as well as presence was defined and described by the participants in their own words and experiences. This method led to a very rich collection of data. This richness is valuable first for understanding how telepresence can be an experience unique to each person. From the results of this study, it seems that social presence can also be dependent not only to the qualities of the technology, but according

to the subjectivities of the individual as well.

Time is a great limitation for this study. In order to truly get a solid qualitative grasp of how telepresence is experienced in everyday life, long-term ethnographic approaches are necessary. This study focused on the individual and the individual's experience. The cultural contexts of mobile communication are equally valuable for understanding telepresence in this way. The interviews that form the basis of this study still benefit scholarship on the topic of telepresence and mediated intimacy. They contribute knowledge of how unique individuals use and understand their personal devices. This study is a snapshot of the nuances and actualities of what is experienced in the here and now. Revealing these actualities is greatly valuable for understanding the various ways a particular communication technology affects these participants' lives. It is also valuable for opening up continued research on the topic. This study is an exploration into the humanistic aspects of how individuals connect with each other on a deeper level. It adds to the body of work on the topic, which combined can present a long term understanding of the phenomenon of telepresence.

### **Future Research**

This study is valuable on a heuristic level in prompting a number of new questions regarding the experience of telepresence. This study brought to light the question of where to draw the line between telepresence experience and mediated interaction. A voice call must contain at least a bit of social presence, or awareness of another's emotions and thoughts, otherwise it would not be an effective communication. In the interviews, however, individuals did not report an intense or obvious level of social

presence. The reasoning behind this could be that perhaps they were just not aware of what I was asking; yet, where should the line be drawn between social presence experience and basic communication mediation? Nearly every participant reported that during phone calls, the phone itself was always in their awareness. This means that there was less of an illusion of non-mediation, and it was simply a mediated communication. If they still had a sense of closeness and awareness of that person's presence, should it still be considered telepresence despite the awareness of the technology? This question involves a theoretical analysis of the definition of telepresence and how closely it relates to the flexible states of presence made possible by everyday communication technologies.

Related to the question above, one of the most interesting results of this study was the ways different individuals talked about presence and telepresence, the words they used and the scenarios that they described. This study focused on mobile communication, but another study might go more in-depth on this topic and explore in more contexts how telepresence is experienced in everyday life. For example, including other communications technologies, such as gaming or social networking, in the study would be valuable.

Another study might tease out whether the content and length of the conversation over the mobile phone influences the sense of telepresence experienced. Included could be the question of how influential is the factor of how well a participant knows the person with whom they are communicating. This kind of study would require participants to be more aware of their communications during a certain span of time. In my study, it at times seemed difficult for participants to recall certain interactions or experiences that informed their understanding of presence through mobile technology.

Throughout the interviews, there was a sense that before someone could experience telepresence through their mobile device, they had to first want to feel a sense of presence with that other person. Mobile communication involves a high degree of imagination, so telepresence may not be as easily sensed as with other virtual communication environments. It is a chosen and desired sense in this context. It is not a forced sense of telepresence as might be the case with virtual environments, where a sense of disembodiment and virtual re-embodiment is preferable for using the technology. With mobile communication, the sense of telepresence in its varying degrees is not necessary for its use. It is sometimes a desired sense and sometimes not a desired sense. Mobile technology affords certain telepresence possibilities, but individuals have to choose to use them as they find appropriate. This study focused on how participants communicate with someone with whom they have a strong emotional connection. Participants frequently desired to be present with the significant other. A subsequent study might look at how telepresence is experienced in contexts when individuals do not desire the same degree of presence with another person. It might look at the difference between how presence is experienced with those who are emotionally close to one another and those who are not. A study on this topic would more acutely tease out the influence of emotions on the telepresence experience.

### **Concluding Thoughts**

The relationship between technologies and behaviors is dynamic. Communication devices alter how we connect with each other, how we understand spaces, and how we understand ourselves. At the same time, our adapted uses of communication technologies influence their evolution and development. New applications and designs are created to

allow for emergent social practices, while new social practices emerge as new designs allow them. In their evaluation of social presence and its supporting technologies, Biocca et al. (2003) frame the central question as, "How well did one person feel connected to another through an interface?" (p. 4). This is an essential question for discovering the objective social value of the design of a communication device, but it will not answer deeper questions of how and why individuals use personal technologies within their interpersonal relationships.

In close relationships, individuals share their innermost thoughts, fears, and dreams. This is an obvious and immutable fact of human nature. Mobile media do not change this fact; but, they can change the particular ways individuals can connect with each other. Mobile media allow for an array of ways to be telepresent with each other; however, within my interviews, they were often used to coordinate plans for meeting in person. It benefited couples who could not spend a lot of time together in how it allowed them to communicate across distances. Perpetual contact and a sense of latent presence benefited couples in that it allowed them the option of immediacy when wanting to connect, if even in a small way, with their close ones. For some participants, the ability to connect helped them feel closer to their significant other. Still, some expressed that their partner's overuse of their mobile device caused them frustration at certain times. This is not the fault of the device and its capabilities, but of the individual's use of it.

At heart, this study is about how intimacy is mediated through the mobile device and how this informs our understanding of how to think about telepresence in the context of an everyday, personal communication technology. Mobile devices are in some ways parts of our personhood. This idea concerning mobile phones permeates the cultural

consciousness. The narratives told in mobile phone advertisements express that these technologies should become our *everything machines*, which hold all of our images, connections, and human expressions. In this study, however, it was shown that this idea is not entirely true. The extreme practices of a few have prompted a number of scholars to declare that mobile media is negatively influencing how individuals connect with technology and connect with each other. It was evident in this research that, in actuality, participants often viewed mediated communication for what it is, with its limitations and benefits. It is true that mobile media has changed the landscape of interpersonal communication, but it has not changed the fact that individuals still desire the full attention and physical presence of others. The meaning each individual attributes to their personal technologies is entirely a personal choice. The qualities of the technology provide the possibilities, but human agency decides how to use and value mobile communication.

This study will contribute to the field in different ways. First, it is an experiment in qualitative methodology for studying a phenomenon that has largely been studied quantitatively. Second, it explores how telepresence, as it is experienced in everyday life through mobile technology, relates to the emotional sense of intimacy. It explores telepresence in an emotional context that has not been comprehensively explored before. Third, and most importantly, it contributes to the body of knowledge that seeks to understand how we understand ourselves. This thesis, as well as future research on the topic, contributes to a deeper understanding of the particular intricacies of human experience shared through technology.

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## APPENDIX A

### Interview Protocol

This interview protocol is meant to be an example of the questions that will be asked during the interview. The interview will be semi-structured, allowing the participant's to expand on topics that they feel more strongly about. The investigator will describe the nature and format of the interview. The purpose of the research is also to be described at this time, informing the subject of the themes they will be asked to discuss. Subjects will be asked to be as descriptive as possible.

#### **Initial questions on the subject's smartphone history and behavior:**

- How long have you had a smartphone?
- How often do you use it for phone calls?
- How often do you use it for texting?
- How often do you use it for gaming?
- Can you tell me about any other uses for which you commonly or frequently use your smartphone?
- Can you describe to me with whom you communicate most using your smart phone?
- When and how did you meet your significant other?

#### **Questions about presence and intimacy:**

- Describe the degree to which you feel a sense of being there, like you and your significant other are together in the same place while you are using voice calls.
  - How about texting?
  - How about gaming?
  - How about image sharing?
- Think about a time you felt very distant from your significant other. Describe how

you used your mobile phone to communicate with him/her.

- Think about the last time you engaged in communication with your significant other using your phones. Describe what you were doing. What was meaningful about the interaction?
- -How often do you think you responded in a physical or audible way even though the intended person couldn't hear or see you? For example, how often did you smile?
- -Describe to what extent you felt mentally immersed in the experience.
- When you are on the phone with your partner, how easily are you distracted by things going on around you?
- Do you find that your moods are more influenced by your partner's when you are physically together or when you are communicating via mobile phones?
- How would you describe the difference in your sense of immersion in relation to the different forms of mobile interaction that you use? For example how mentally and sensorially engaged are you during the interaction?
- How much of a difference do you feel in the sense of immersion between when you're talking with your significant other and someone else?
- Has there ever been a time when you were distant from your partner and you did not have your phone with you? Can you describe what happened and how you felt?
- Please describe in your own words and experience what intimacy means to you.
- How often do you play games with your significant other using your smartphone?
- Can you describe any in particular games or times when you feel closer with your significant other while you are gaming?
- Tell me about a time when you felt intimate emotions with your significant other while using mobile media.
- Tell me about times you feel connected with your significant other as a result of mobile media.
- Can you tell me about your relationship with your smartphone?
  - -for example: how you carry it, how often you check it, what it means to you.
- What roles do your mobile devices play in your relationship?

- How important are they and in what ways?
- How do you think about them before, during and after you use them?
- How do you think about your partner's device?
- Describe what you think your current relationship with your significant other might be like without you both having smartphones.
- Describe how you feel communicating sensitive emotions while speaking on the phone with your significant other.
  - -How about through texting?
  - -How about through another form of mobile communication?
- Tell me about a time when you needed to communicate something immediately to your significant other. How did you do it?
- How often do you communicate with your SO using your mobile during times when you are at work or school?
- Can you describe a time when you have used your mobile devices to communicate with each other even though you were both physically in the same place at the same time?
- When you first met your partner, how much did you differ in how you both used your mobile phones? Can you describe how you differed?
- In terms of how you use your phone, are there practices that you either learned from or developed with your partner?
- How purposefully do you use the various practices we've talked about in order to stay close to your partner?
- How effective do you feel your mobile devices are in maintaining a mediated presence with your significant other?
- If you could design a new application for your phone to use with your partner, what would it do and how would you use it?

## **Appendix B**

### **Letter of Solicitation**

Hello,

My name is Julia Czaja and I am doing a thesis study for my master's degree in Broadcasting, Telecommunication, and Mass Media at Temple University in Philadelphia, PA. My study is on the topic of mobile media, relationships, and feelings of presence. I am very interested in what you personally have to say about your mobile phone and would like the time to interview you at a time of your convenience. It would be a great benefit to me and to the academic community, who strive to understand the issues at heart in the human experience of today's increasingly technological world.

If you are interested in participating, I will ask you questions about your mobile phone use and how you communicate with your significant other. Interviews will be audio recorded, but will be kept strictly confidential and anonymous. They will take approximately one half hour, depending on how much you wish to elaborate on certain questions.

I can interview you over Skype, Google video chat, or over the phone using my Google voice number. Interviews will take place during a time of your convenience between March 13<sup>th</sup> and March 25<sup>st</sup>, 2012.

Please contact me as soon as possible, if you wish to participate. I truly appreciate your time and consideration. Thank you.

Best wishes,

Julia Czaja  
cell: (908) 528-6610  
google: (267) 888-6596  
email: juliaczaja@gmail.com

## APPENDIX C

### Consent Form

**Research Title:** Mobile Intimacy: Telepresence, Mobile Technology, and Romantic Relationships

**Principle Investigator:**

Matthew Lombard, PhD

Associate Professor

Department of Broadcasting, Telecommunications, and Mass Media

Temple University

2020 N. 13<sup>th</sup> St.

Philadelphia, PA 19122

(215) 204-7182

**Investigator:**

Julia Czaja

MA Student

Department of Broadcasting, Telecommunications, and Mass Media

Temple University

2020 N. 13<sup>th</sup> St.

Philadelphia, PA, 19122

**IRB Protocol:** # 20388

Temple University is not being compensated for performing this study.

**Subject Name:**

**Purpose of research:** The purpose of this study is to research the experience of presence and intimacy in the context of mobile communication use between couples. This research is important for understanding the relationships between presence, intimacy, and smartphone communication.

**Selection of subjects:** You are being asked to join this research study because you are over 18 years of age, are currently in a romantic relationship, and use a smartphone.

**Procedures:** Participants will meet with the investigator at a place and time of the participant's convenience. Interviews will be recorded and last approximately 1 hour. The interview will be semi-structured.

**Risks:** There are no foreseeable risks involved in this research.

**Benefits:** Participants will benefit by contributing valuable information for the purposes

of this study. Participants may also benefit by being given the opportunity to express their joys, frustrations, and attitudes about their smartphone experiences.

**Confidentiality:** Although the study team has placed safeguards to maintain the confidentiality of my personal information, there is always a potential risk of an unpermitted disclosure. To that degree, all documents and information pertaining to this research study will be kept confidential, unless required by applicable federal, state, and local laws and regulations to be disclosed. I understand the records and data generated by the study may be reviewed by Temple University and its agents, the study sponsor or the sponsor's agents (if applicable), and/or governmental agencies to assure proper conduct of the study and compliance with regulations. I understand that the results of this study may be published. If any data is published, I will not be identified by name.

**Voluntary participation and withdrawal:** Your participation in this study is entirely voluntary, and refusal to participate will involve no penalty or loss of benefits to you. You may discontinue your participation at any time without penalty or loss of benefits.

**Questions:** If you have any questions about my rights as a research subject, you may contact the Institutional Review Board Coordinator at (215) 707-3390. The IRB Coordinator may also be reached by email: [IRB@temple.edu](mailto:IRB@temple.edu) or regular mail:  
Institutional Review Board Coordinator  
Temple University Research Administration  
Student Faculty Conference Center  
3340 North Board Street – Suite 304  
Philadelphia, PA 19140

Do not sign this consent form unless you have had a chance to ask questions and have received satisfactory answers to all of your questions.

If you agree to participate in this study, you will receive a signed and dated copy of this consent form for your records.

**Consent:** I have read this consent form (or it has been read to me *[if applicable]*) and the study has been explained to me. All my questions about the study and my participation in it have been answered. I freely consent to participate in this research study.

By signing this consent form I have not waived any of the legal rights that I otherwise would have as a subject in a research study.

---

Subject Name

---

Signature of Subject

---

Date

---

Signature of Principle Investigator

---

Date

---

Signature of Person Conducting Informed  
Consent Discussion

---

Date

## APPENDIX D

### Permission to Audio Record

Investigators' Name: Matthew Lombard and Julia Czaja  
Department: Temple School of Communication & Theater, BTMM Dept.  
Project Title: Mobile Intimacy: Telepresence, Mobile Technology, and Romantic Relationships

Subject: \_\_\_\_\_ Date: \_\_\_\_\_  
Log #: \_\_\_\_\_

I give \_\_\_\_\_ permission to audiotape me. This audiotape will be used only for the following purpose (s):  
(Choose one)

#### RESEARCH

This audiotape will be used as a part of a research project at \_\_\_\_\_. I have already given written consent for my participation in this research project. At no time will my name be used.

#### WHEN WILL I BE AUDIOTAPED?

I agree to be audiotaped during the time period: February 25, 2012  
to March 25, 2012.

#### HOW LONG WILL THE TAPES BE USED?

I give my permission for these tapes to be used from: February 25, 2012  
to February 25, 2013.

Data from interview will be stored for one year following the start of the study.

#### WHAT IF I CHANGE MY MIND?

I understand that I can withdraw my permission at any time. Upon my request, the audiotape(s) will no longer be used. This will not affect my care or relationship with \_\_\_\_\_  
\_\_\_\_\_ in any way.

#### OTHER

I understand that I will not be paid for being audiotaped or for the use of the audiotapes.

#### FOR FURTHER INFORMATION

If I want more information about the audiotape(s), or if I have questions or concerns at any time, I can contact:

Investigator's Name: Julia Czaja

Department: Broadcasting, Telecommunications, and Mass Media

Institution: Temple University, School of Communication and Theater

Street Address: 2020 N. 13<sup>th</sup> Street

City: Philadelphia State: PA  
Zip Code 19122

Phone: Office (908) 528-6610 Cell (908) 528-6610

This form will be placed in my records and a copy will be kept by the person(s) named above. A copy will be given to me.

Please print

Subject's Name: \_\_\_\_\_

Date: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Subject's Signature: \_\_\_\_\_

\_\_\_\_\_  
Witness Signature Date

\_\_\_\_\_  
Witness Signature Date



Office for Human Subjects Protections Student Faculty Conference Center

Institutional Review Board 3340 N Broad Street -Suite 304  
Medical Intervention Committees A1 & A2 Philadelphia, Pennsylvania 19140  
Social and Behavioral Committee B Phone: (215) 707-3390  
Fax: (215) 707-9100  
e-mail: [irb@temple.edu](mailto:irb@temple.edu)

### Certification of Approval for a Project Involving Human Subjects

Protocol Number: 20388

PI: LOMBARD, MATTHEW

Approved On: 06-Mar-2012

Review Date: 06-Mar-2012

Committee: B BEHAVIORAL AND SOCIAL SCIENCES

School/College: Communication and Theater (1700)

Department: SCT:BTMM (17040)

Project Title: Mobile Intimacy: Telepresence, Mobile Technology, and Romantic Relationships

In accordance with the policy of the Department of Health and Human Services on protection of human subjects in research, it is hereby certified that protocol number 20388, having received preliminary review and approval by the department of SCT:BTMM (17040) was subsequently reviewed by the Institutional Review Board in its present form and approved on 06-Mar-2012 with respect to the rights and welfare of the subjects involved; appropriateness and adequacy of the methods used to obtain informed consent; and risks to the individual and potential benefits of the project.

In conforming with the criteria set forth in the DHHS regulations for the protection of human research subjects, and in exercise of the power granted to the Committee, and subject to execution of the consent form(s), if required, and such other requirements as the Committee may have ordered, such orders, if any, being stated hereon or appended hereto.

**It is understood that it is the investigator's responsibility to notify the Committee immediately of any untoward results of this study to permit review of the matter. In such case, the investigator should call the IRB at (215) 707-3390.**

This is the Certificate of Approval. Supplemental documentation will follow under separate cover. Enrollment may not begin until all documents have been reviewed and processed by the IRB and received by the study team.

Board determined conditions of approval applied to this protocol:

Name (Fulfilled Date) Description

ZEBULON KENDRICK, Ph.D.  
CHAIRMAN, IRB