

**Love in the Time of Caller ID: Understanding the Role of Smartphone
Technology in Committed Relationships**

by

Noorin Manji

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EXAMINING COMMITTEE MEMBERSHIP

The following served on the Examining Committee for this thesis. The decision of the Examining Committee is by majority vote.

External Examiner	DR. ANABEL QUAN-HAASE Professor in the Department of Sociology and Information and Media Studies, University of Western Ontario
Supervisor	DR. LORNE DAWSON Professor in the Department of Sociology and Legal Studies, University of Waterloo
Internal Member 1	DR. JANICE AURINI Associate Professor in the Department of Sociology and Legal Studies, University of Waterloo
Internal Member 2	DR. JOHN MCLEVEY Assistant Professor in the Department of Knowledge Integration, University of Waterloo
Internal-External Member	DR. TONI SERAFINI Associate Professor in the Department of Sexuality, Marriage, and Family Studies, St. Jerome's University

AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners. I understand that my thesis may be made electronically available to the public

ABSTRACT

Smartphones have changed the way our world works, and have had particularly unique impacts on the way human relationships function. Among the most important of those relationships are the ones that people form by choice through their romantic involvements. Love, relationships, and the pursuit of them both are deeply emphasized as life goals in cultures and societies, the world over. Despite the significance of these bonds, as well as the growing integration of smartphone technology into our daily lives, minimal qualitative research exists about the substantive intersection of these modern devices and committed romantic relationships. Based on an analysis of data collected through in-depth individual interviews with fifty-six participants, comprising twenty-three couples, an updated theoretical framework that bridges Sternberg's Triangular Theory of Love (1986) and the core concepts of connection, communication, control, and constancy is proposed. Relying on the narratives provided by the participants of this study as evidence, it is clear to see that the social context in which committed relationships now exist, has been transformed by the use and integration of smartphones into people's everyday experiences. Smartphones have altered the way committed relationships start, the ways in which people operate within them, and even the deeper meanings people associate with their own and others' identities, among so many other social processes. These modern mobile communication devices, in giving people a source of connection, a channel of communication, a method of control, and an element of constancy have had qualitative implications on the daily experiences of people in committed relationships specifically, and in society more generally.

Keywords: Technology, Smartphones, Mobile Devices, Love, Relationships, Commitment

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On a personal note, I want to acknowledge the enduring support of my friends and family. Without the love and encouragement of my parents, Nasir & Nimet, my brother, Aminmohamed, and my best friend, Suzy, I could not have even imagined reaching this point. There are no words to adequately express my gratefulness to them and for them.

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DEDICATION

I dedicate this thesis to my parents, Nimet and Nasir Manji.

Thank you for buying me my first cell phone,
For opening me up to a world of technology I would've otherwise not known.

For supporting me in my every endeavor,

I will be grateful to you forever.

Thank you for instilling in me all the qualities that have helped me succeed,

By following your example, I have learned how to lead.

For standing by my side through everything so sincerely,

I appreciate you so much, and I love you both dearly.

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PREFACE

History is fraught with eras that brought with them amazing social and cultural shifts, from the integration of the home television and home telephone, now to the explosion of mobile communication technology and the growing extents of the internet. I consider myself lucky to have been born right on the cusp of the newest revolution in communication technologies, since, in so many ways, its growth and development has come to mirror my own. While, historically, this revolution might still be in its infancy, in terms of the developments it has brought with it in culture, society, economics, healthcare, politics, and so many other facets of everyday life, it continues to fascinate me, and has even come to ground my academic and professional goals.

I grew up in and still remain part of a family in which technology, interestingly enough, has become a sort of lineage marker. The newest devices, reflecting the most up-to-date mobile consumer technology available, make their way in through the head of my family, the patriarch, my father, and as they age, they make their way down the line, passing through the possession of every family member along the way, and it has always been this way. My interest in modern mobile technology stems not from the technical aspects of how the devices work, operate or function; rather, it stems from the experiences I have had as a mobile technology user, as I have seen my interactions and relationships with others change, while bearing simultaneous witness to paradigmatic shifts that have occurred in the evolution of the technology. This observation essentially represents the crux of my study, as I explore the impacts that modern communication technologies, especially smartphones, have had on human relationships. In talking with others about my research, including those who have participated in the study and others, it is clear to me that my inherent fascination with mobile technology is not unique. In a general sense, people are interested in exploring the role of mobile communication devices in their lives.

CHAPTER 1: INTRODUCTION

1.1 Research Introduction

In Marshall McLuhan's *The Medium is the Message*, he defines the concept of a medium as "any extension of ourselves," for which he uses classic examples such as a hammer that extends our arm, or a wheel that extends our legs and feet, all enabling us to do more than our bodies could do on their own (1967:9). McLuhan was writing at a time that long predated recent forms of technology, in particular, smartphones, as we know them today, but his delineation of the power of contemporary media could not be more descriptively accurate. As he writes, "all media work us over completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical, and social consequences that they leave no part of us untouched, unaffected, unaltered" (McLuhan, 1967: 26). In asserting that we can essentially know the nature and characteristics of anything we conceive or create (the medium) by observing the changes that they effect (the message), McLuhan prompts us to consider several new lines of inquiry in the context of recently developed communication technology. This research project was designed with the intent of understanding the daily experiences of committed couples that have adopted smartphone technology with the goal of exploring the extent to which people's relationships to each other are affected by the technology, and similarly, the extent to which people's relationships to the technology are affected by each other.

If there is any one feature that best symbolizes the contemporary climate of global culture, arguably, it would be technology. Anabel Quan-Haase (2013), in developing a foundation to explore the relationship between technology and society, examines five alternative definitions of technology at length. She essentially distinguishes views of technology as: 1) a material substance; 2) a form of knowledge; 3) a practical societal practice; 4) a technique of human action and behavior; and 5) as society, itself (Quan-Haase, 2013). Ultimately, she uses these five

perspectives to form the basis of her own understanding of technology, which she defines as “an assemblage of material objects, embodying and reflecting societal elements, such as knowledge, norms, and attitudes that have been shaped and structured to serve social, political, cultural, and existential purposes” (Quan-Haase, 2013: 7). Keeping in mind this formal definition, in conjunction with widely shared popular conceptions of technology, it could, perhaps, be argued that the most pervasive and rapidly proliferating form of technology that currently saturates people’s daily experiences are smartphones.

Mobile phones are handheld, portable, electronic devices that are capable of mobile telecommunications, and by 2006, in the U.S. alone there were over 935 million mobile phones in use (Donner, 2008: 141); a number that only continues to increase with each passing year. Statistics Canada, in a 2013 report, confirms the reality of the growing use of mobile phones. In 2013, 83% of Canadian households had an active cell phone, up from 78% in 2010, and in 2013, 60% of households, where all members are under 35 years of age, reported using a cell phone exclusively, with no landline connection in their homes (Statistics Canada, 2013).

Considering the statistical data available, it is abundantly apparent that people are more dependent on mobile technology today than they have ever been. According to data from the Canadian Wireless Telecommunication Association (CWTA), the number of wireless subscribers in Canada has essentially exploded over the last two decades. Below (Table 1) is a chart that comparatively presents population data versus wireless subscriber data in Canada over the last two decades.

CANADA:	Population	Total Wireless Subscribers
1996	29.67 million	3, 414, 711
2006	32.57 million	18, 425, 194
2016	36.13 million	30, 045, 817

Table 1: Canadian Population vs. Wireless Subscribers By Decade 1996-2016

While Canada’s population has seen an increase of approximately 6 million people over the last 20 years, the number of total wireless subscribers has increased by over 26 million (Table 1). Canadians, however, are not unique in their experience of these changes, which Rainie and Wellman (2012) refer to as the “Mobile Revolution.” “Mobile connectivity around the world has grown even more explosively than in North America. By 2009, there were more than three billion mobile phones in use and cell towers were probably within reach of 80 percent of the world’s population” (Rainie and Wellman, 2012: 88).

Although mobile phones that are capable of baseline mobile telecommunications have been widely available for decades, the explosion of what we now call “smartphones,” is a more recent development. The term “smartphone” has come to denote a programmable mobile phone typically including high-speed data connection, color screen, camera, local connectivity (bluetooth and infrared), web browsing, text and multimedia messaging, e-mail, and games (Raento, Oulasvirta, and Eagle, 2009: 429). “The first devices that could be called smartphones shipped in 1999, but the technology was not mature enough for general acceptance...and they began to penetrate the mobile phone market in the fall of 2003” (Raento, Oulasvirta, and Eagle, 2009: 429). By 2006, in the largest 208 countries, there were 2.7 billion mobile phones in the world, 1.5 billion of which were found in the upper-middle to high-income nations (Donner,

2008: 141). Given that smartphones entered the marketplace as recently as ten years ago, the majority of adult smartphone users today were born prior to the introduction and rapid spread of mobile smartphones in the mid-2000s, and have been part of the transition from a pre-cellular to a fully cellularized culture. It is this transition, and the choices people have made, and continue to make, regarding their engagement with smartphone technology, that constitutes the context of this research.

There are many parts of people's social lives in which they perceive changes as a result of the presence of smartphones. Smartphones have undoubtedly affected our forms of production in the workplace, have likely impacted our preferences in leisure pursuits, and may even have implications for our patterns of communication and behavior in our relationships with other social actors. It is this latter focus that my research is most concerned with. Love, relationships, and the pursuit of them both, are deeply emphasized as life goals in cultures and societies the world over. In fact, as Ann Swidler (2001) argues, "although love is a quintessentially personal, private experience, love is just as profoundly social and cultural. Love is a central theme of our popular culture...and unlike many of the political and social attitudes sociologists normally study, love really matters to most ordinary" people (Swidler, 2001: 2). Given this emphasis, and the fundamentality of the act of communication to the preservation of committed relationships rooted in love, in developing this research project I set out to establish an understanding of whether or not smartphones are affecting, even changing in some ways, people's perceptions of these pivotal relationships. Previous research reveals that mobile phones are very important as a means of communicating, and that satisfaction with cell phone usage and committed relationships are strongly and positively correlated (Miller-Ott, Kelly, Duran, 2012: 17). I want to understand what unique meanings and uses smartphones hold in people's lives and relationships, if any, and how those elements in turn reveal larger social patterns. With this study, my intent is to highlight any

significant qualitative differences that smartphones have introduced into peoples' understanding of their committed relationships, with the larger goal of helping technology users make sense of the role of that smartphones have come to occupy in their day-to-day interactions.

My research seeks to explore the implications of smartphones in the specific context of committed, romantic adult relationships. To complete my research, I used a qualitative methodological approach, in which data was primarily collected in the form of individual in-depth interviews with participants in couples who self-identified their relationship as 'committed.'

1.2 Research Questions

This thesis examines the daily experiences of committed couples that have adopted smartphone technology with the goal of understanding the extent to which people's relationships to each other are affected by the technology, and similarly, the extent to which people's relationships to the technology are affected by each other. To emphasize the relevance of this area of study as a rooted in substantively and theoretically necessary research questions, rather than simply a general research interest (Luker, 2009), there are a few important points to emphasize. First, this study seeks to clarify the relationship between smartphone technology use and participation in committed relationships, as two vectors that regularly and significantly interact in people's everyday lives (Luker, 2009). Second, understanding the relationship between these two elements has the potential to provide important insight into critical aspects of social life, such as the new ways in which people now use their devices to establish committed relationships in the first place (Luker, 2009). Third, as Luker (2009) prompts researchers to ensure, this study is anchored in a range of possible theoretical perspectives that provide varying and illuminating frames through which the relationship between these two elements can be examined (Luker,

2009). Finally, this study will “advance the state of play” in multiple “intellectual conversations that are already going on in the scholarly world” (Luker, 2009: 52).

To guide my core inquiry, several underlying questions will be examined including, but not limited to: How did individuals and couples make the transition to smartphone-mediated communication? What aspects of their relationships, if any, have been impacted by the use of smartphones, as identified by each member of the couple? Do individual couples, and more specifically, particular members of each couple, make use of smartphone technology differently? If so, does their differential use relate to varying impacts on their relationships? Do the couples together, and the individual members of each couple, feel their relationship has changed as a result of their smartphone technology use? These guiding questions shape the trajectory of my research from the planning stages, to data collection and analysis, and finally to exploring my findings and their larger social implications.

The theoretical orientation of this project is firmly located in a middle-range theory approach, to be further discussed, whereby the research objectives are to stress discovery and theory development. Throughout the research process, these guiding questions have helped to direct inquiry towards these goals by remaining open to the narratives provided by participants, rather than by systematically inserting findings into existing frameworks. Smartphone technology, as the literature shows, is not only a relatively new medium of communication, but it is also a rapidly changing medium that seems to be progressively expanding in its uses, users, capabilities and applications. Love, relationships, and the pursuit of them both are deeply emphasized as life goals in cultures and societies, the world over. There is a need to establish an understanding of what this quickly developing technology means for love and romantic relationships specifically, and what it means to social systems overall. The available research in this area is not only limited, but is also heavily reliant on quantitative data collection strategies, which make dealing with

research questions of a sensitive and personal nature challenging. My investigation, as a result, has focused on accessing this deeper, more specific, qualitative data in order to establish a baseline theoretical model that, until now, did not yet exist in the literature, with the larger goal of merging the two substantive subfields I am exploring: modern smartphones and romantic relationships.

1.3 Literature Review

In constructing the foundations of any well-developed research project it is essential to consider the substantive knowledge that exists, for the purposes of not only understanding where the research fits in the literature, but also how it will contribute to the growth of the field. This review of the literature is aimed at forming a fundamental knowledge of the key research findings that have helped guide and inform my study on smartphone technology, on committed relationships, and more specifically, the intersection of these two substantive areas. The following review of the literature is organized into three subsections, corresponding to the structure of my later analytical discussion: (1) Trends in Cellular Phone Research; (2) Key Concepts in the Sociology of Love and Relationships; and (3) Cellular Phones and Committed Relationships.

1.3.1 Trends in Cellular Phone Research

My research seeks to bridge two distinct substantive subfields of study by developing an investigative lens that is intended to highlight the intersection of experiences people have in these two areas of their lives. While this intersection of experiences is the focus for my project, I should emphasize that my greatest interest lies in understanding whether or not, and more importantly, how modern mobile communication technologies, specifically smartphones, impact

the way people live their lives. While, for the purposes of this project, I have opted to bring together my study of this technology with the study of committed relationships, theoretically, I hope to extend knowledge in the subfield of smartphone technology research into other points of intersection like smartphone technology and health, or perhaps even smartphone technology and work/occupations. With this in mind, the review of the existing research literature presented here, as well as the later focus of my data, is certainly more heavily predicated on an exploration of research related to smartphone technology.

Most of the literature discussed has emerged in the last ten years because of the relative novelty of the topic of smartphones both to society generally and academic research specifically. The literature on the social implications of smartphone technology, and their roots in earlier cellular phone technology can be roughly divided into three sub-categories: (1) work focused on applying earlier concepts related to social networks and ties to the use of mobile phones; (2) work focused on the behavioral and communicative styles of cellular phone use within people's social networks; and (3) work focused on an examination of the mobile phone as a component of any number of technological paradigms.

Mobile Phones and Social Networks

One of the most interesting trends in studies directed at understanding cellular culture is the focus of many researchers on the use of technology, specifically smartphones, within specific social networks, by particular demographic groups, like adolescents. Research reveals "a higher need for communication is characteristic in the adolescence phase. Teenagers are confronted with two major developmental challenges: identity formation and redefining the relationships with their family while establishing new forms of social contact" (Van Cleemput, 2010: 75). Using a Social Network Analysis approach to understand how adolescents make use of communication media, Van Cleemput found that, though face-to-face communication was still the most

prominent way for information to flow through a network, interactions through communication media, including e-mail, instant messaging, text messaging, mobile phones, and landline phones, supplemented this flow of information in a substantial way (2010).

Interestingly, there seems to be a media hierarchy in terms of how adolescents communicate with others: “close friends (strong ties) used all communication media at their disposal to connect with each other, and students who were just friends (weak ties) preferred face-to-face communication and social network sites” (Van Cleemput, 2010: 75). These findings lend themselves to a few important points relating to this project. First, in terms of understanding how social actors generally interact with cellular culture, as Van Cleemput (2010) emphasizes, practices seem to have become integrated into habitual mechanisms for maintaining social relationships; and second, the choice, by a social actor, to use smartphones as a communication medium, either via text messaging, mobile phone calls or other mobile communication methods, may be indicative of the nature and strength of the social relationship being maintained. Given that one of my guiding research questions is: what aspects of the participants’ romantic relationships, if any, have been impacted by the use of smartphone technology, understanding how different couples make use of various mobile communication methods can provide insight into the strength, and possibly even longevity, of the relationship. The data I have collected certainly speaks to differential trends in volumes of mobile communication, as well as particular mobile communication methods, a theme to be discussed later.

Variations in relationship strength are just one aspect to consider when examining how couples alternatively use smartphone technology. Another theme that has emerged in my research, that is also directly relevant to the existing literature, is the distinction in gendered approaches to smartphone use. While there are many examples in the research literature of studies that explore how men and women make use of their mobile devices, the central focus has not been on how

men and women that are part of the same heterosexual committed relationship differentially make use of their devices – a gap to which my data responds.

Many researchers, in exploring gender as a relevant factor, have even opted to investigate multiple demographic features in understanding how people’s smartphones link them to their social networks. Some notable work in this area specifically focuses on intersections of vectors like age and gender (Igarashi, Takai, and Yoshida, 2005). Much of this research is rooted in earlier theoretical work, and truly shows the progression of knowledge in this subfield of research. For example, Matsuda’s (2000) interpersonal relationship theory, “claims that mobile phones can change social networks among young people...Young people (broadly defined as 13-30-year-olds) had extensive, but low quality relationships with friends, and mobile phone usage may facilitate the improvement in the quality of their relationships” (Igarashi et al., 2005: 694). Since “young people prefer selective interpersonal relationships in which they maintain particular, partial, but rich relations, depending upon the situation” (Igarashi et al., 2005: 694), mobile devices have become a significant tool for enacting their social patterns.

A larger trend in the existing literature emerges when exploring this research cumulatively, since they together reach the conclusion that the “intimacy of friends who communicate via both face-to-face and mobile phone text message was rated higher than those who communicate only via face-to-face...and the structure of mobile phone text message social networks coincide with known gender differences in network characteristics. Women tended to expand their mobile phone text message social networks more than men...and these findings suggest that patterns of interpersonal relationships for mobile phone text message social networks correspond to Matsuda’s (2000) selective interpersonal relationship theory,” which emphasizes these gendered trends in the data (Igarashi et al., 2005: 691).

Other studies brought in a discussion of culture as another important element to consider in smartphone use, in combination with gender (Green and Singleton, 2009). Research conducted amongst young Pakistani-British women and men revealed “interesting gendered practices of connectivity and sociability...and important dimensions of developing peer group identities, including diverse performance of femininities and masculinities” (Green and Singleton, 2009: 125). With significant data in the literature focusing on the development of feminine and masculine identity performances, the data I have collected builds on this finding in two particular ways, creating a noteworthy intersection of themes. First, the concept of identity has proven to be relevant to my data, as people, in general, seem to regard and use their phones as a type of identity marker. Second, and more specific to the factors of gender and culture (Green and Singleton, 2009), the participant data collected indicates a difference in gendered perspectives on mobile device use in the context of committed romantic relationships, and also reveals unique applications of mobile technology use when considering the cultural/religious/ethnic background of participants.

Within the literature focused on social networks and the impact of mobile phones, another notable trend is differentiating types of communication networks. In analyzing personal networks, for example, earlier research has revealed that heavy communicators, or those who draw heavily on all types of media to connect with their personal networks, typically have larger and more diverse personal networks than light communicators, those people that draw less heavily on all types of media (Boase, 2008). Furthermore, research shows that the type of communicator that an individual can be categorized as, heavy or light, can be predictive of how they use communication technologies to stay socially connected (Boase, 2008: 490). Several important elements of my research are based on understanding how each participant defines the role of technology in their lives, and in their relationships. Therefore, initially, I sought to understand,

for example, how people make sense of their mobile communication patterns, and further to this, how their mobile communication patterns are negotiated in the context of their committed relationships.

While my goal has not necessarily been to designate or even confirm categories in terms of types of communicators, like ‘heavy’ versus ‘light’ communicators, my data has revealed that there is a difference between the types of social expectations people feel compelled to meet **via** their mobile devices, versus the types of relationship expectations people feel compelled to meet **in spite** of their mobile devices. While it is true that participants I spoke with reported on the ways in which their mobile devices help to facilitate communication with their significant other, many participants also highlighted the issues they face within their relationship as a result of differences of opinion between partners in terms of what constitutes acceptable patterns of mobile device use. I have not explicitly relied on Boase’s (2008) language to separate ‘heavy’ versus ‘light’ communicators in talking with my participants, but in reporting the frequency of their device use, as well as how that use manifests and gets negotiated in the context of their relationships, my data has built upon this conceptual dimension.

Mobile Phones and Behavioral and Communicative Styles

Another trend in the broad literature on mobile technology is centered on investigating how the use of smartphones interacts with behavioral and communicative choices (Walsh, White, and Young, 2008). In reviewing earlier studies that fall into this category, some apply a distinct social-psychological perspective in order to focus on the implications of those styles of communication and behavioral choices in people’s lives more generally (Walsh, White, and Young, 2008). On the one hand, findings from these studies reveal “the psychological benefits arising from mobile phone use...as it was believed to provide numerous benefits to users as an intrinsic part of most people’s lives” (Walsh et al., 2008: 77). However, on the other hand, much

of this earlier research also highlights problematic aspects of particular behavioral and communicative styles. For example, researchers have found that “people are extremely attached to their mobile phones with symptoms of behavioral addiction revealed in participants’ descriptions of their mobile phone use” (Walsh et. al, 2008: 77). These findings draw attention to the central thrust of my investigation, in terms of identifying patterns in how social actors interact with cellular technology in general, understanding what meaning it has come to occupy in their lives and romantic relationships, and delineating the ways in which their use of the technology gets mediated by themselves and by others.

Many of the participants from my study similarly alluded to the idea of being “extremely attached to their mobile phones” (Walsh et. al, 2008: 77), and though none of them went so far as to designate their attachment as being symptomatic of addiction or other extreme conditions, there was an interesting sense of ambivalence about the way people regard their smartphones. On one hand, people seem to recognize that their devices do facilitate their life activities and contribute to their lives in a positive way, and on the other hand, there exists myriad examples from my participants emphasizing a more negative understanding of the role of the technology. This ambivalence is an underlying trend in the data overall, as it seems that people have developed a complex understanding of, and relationship with, their mobile devices.

A lot of research has been dedicated to understanding how individuals make use of the mobile phone, and how their use may impact various relationships in their lives. The way people apply unique behavioral and communicative styles to their use of smartphones, for example, has also been found to “contribute to the development and maintenance of social cohesion within the closest sphere of friends and family” (Ling and Stald, 2010: 1133). However, there is a lack of research that goes so far as to conduct the investigation from the perspectives of both people involved in a single committed romantic relationship, despite the fact that partners in committed

romantic relationships arguably constitute the closest possible ties (Ling and Stald, 2010). The data I have collected speaks to both the ways in which people use their mobile device to maintain social relationships with friends and family, and also incorporates the added element of committed romantic relationships. This is indicated by the design of my in-depth semi-structured interview guide. It first consists of an initial set of questions to specifically address how people make use of their phones; second a set of questions to address the nature of people's committed relationships; and third a set of questions to address the intersection of the two aspects of people's lives.

Understanding the implications of mobile communication on the long-term, committed relationship of two people will depend heavily on making sense of what patterns of mobile communication exist in the first place. Much of the existing literature focuses on the practical implications of smartphones on forms of communication (Baym, 2010). It seems that the rapidly increasing use of mobile phones has "blurred" traditional conceptions of communication in at least three ways: first, there is a diminishment in the distinction between communication with one versus with many; second, there is a loss in the sense of privacy and separation between public and private spheres; and third, there is the ability to extend communication across space and time in new ways (Baym, 2010). Each of these three assertions has proven to be directly relevant to my investigation. My data has supports the first contention on multiple levels. On the surface level, my participant data has lent itself to the construction of a unique set of definitions that people have come to apply to their device and device use; definitions that thematically frame smartphones and their use as an 'all-encompassing' tool of 'connectedness' that is continuously growing in terms of its 'integration' into our everyday lives. On a deeper level, and more specifically related to romantic relationships, my data further supports the first contention by emphasizing the ways in which people see their devices as mediums of connection to not just one

romantic other, but with many romantic others, of their past, present, and even future, through, for example, smartphone dating applications.

My data also supports and extends the second contention that smartphones have blurred traditional communication via a loss in the sense of privacy and the separation between public and private spheres (Baym, 2010). The participants that I interviewed echoed this sentiment in so many interesting and diverse ways. For example, in a general sense, the theme of consumerism that emerged in my data speaks to the ways in which public and private spheres have come to overlap, as people regularly use their devices in private spaces to engage in behaviors that were once considered public actions, like shopping and other consumer activities. In the more specific context of romantic relationships, the loss in the sense of privacy that has come from the integration of smartphones into everyday life (Baym, 2010), further links to concepts of privacy and surveillance in my data. More specifically, my discussion will later delve into aspects of both partner and self-monitoring in terms of smartphone use, for example. However, interestingly, my data also provides contradictory findings, as for many people, whose relationships are anchored in trust, smartphones have become a medium characterized by increasing individuality and privacy. Even Baym's third claim, regarding the ability that mobile phones provide to extend communication across space and time in new ways (Baym, 2010), can be further supported by the many examples of data collected from my participants related to their various patterns of communication, from the forms, to frequency, and even to hierarchies of communication. It was clear from talking with my participants that the mobility that is characteristic of peoples' smartphones allows them communicate in novel forms, more often, and with those that they have the strongest social bonds with across space and time.

Mobile Phones and Technological Paradigms

A third and final overarching trend in the mobile phone literature relates broadly to research that focuses on the specific usages of mobile phone features. For example, research that exclusively explores sequential structures of communication via short message service (SMS), more popularly known as text messaging, has found that “exchanges frequently lack openings and closures, show an effort towards reciprocation, use implicit or anticipated actions...and that social presence seems characterized by a sense of constant availability, symmetric commitment and shared understanding” (Spagnolli and Gamberini, 2007: 343). Prior to the introduction and widespread use of mobile phones, and more specifically, smartphones, there existed no form of communication with these characteristics. When landlines were the main form of communication, exchanges did not lack openings and closures, they did not demand reciprocation, were not based on implicit or anticipated actions, and were not characterized by a sense of constant availability, symmetric commitment, nor shared understanding. What this means then, is that, not only have smartphones impacted the methods through which we communicate, but they have also, in turn, had implications for the qualitative attributes of those forms of communication. My data supports these findings in two ways: first, participant interviews revealed similar perceptions of mobile communication in terms of the general smartphone use behaviors discussed, particularly text based communication; second, but equally relevant to these earlier research findings (Spagnolli and Gamberini’s, 2007), within the particular frame of romantic relationship communication, several participants also highlighted the unique and changing characteristics that text-based communicate has come to embody with their significant other as they have, together, progressed through different relationship stages as a couple. As people maintain their relationship with their significant other over time, smartphones seem to be impacting the qualitative attributes of the

communication that takes place, to varying extents, depending on how long the couple has been together.

It is insightful to note that some of the existing literature in this subfield takes a more critical stance (Ling, 2008) in questioning whether the smartphone contributes to or detracts from a sense of social cohesion through ritual use of mobile communication features. Findings indicate that, through the use of various social rituals in feature use, the mobile phone has been shown to strengthen social ties among family and friends (Ling, 2008). For example, Ling (2008) emphasizes how communication behaviors developed in exchanges over social networking sites, if ritualized, can lead to stronger social ties. Interestingly, however, this ritualization, and subsequent relationship strengthening, sometimes comes at the cost of interaction among physically proximate people (Ling, 2008). This leads to what Ling (2008) refers to as ‘bounded solidarity,’ or the enforcement of already existing strong ties, rather than the development of new social ties, or the strengthening of existing weak ties (Ling, 2008). My data seems to paint a slightly different picture than that which is presented by this particular subset of earlier findings, although does not completely diverge. On one hand, my participants unequivocally echoed the former point that the smartphone has been shown to strengthen social ties (Ling, 2008), and this is a finding that has remained relatively consistent across the literature. On the other hand, however, while earlier research makes the claim that mobile-mediated communication enforces already existing social ties, rather than the development of new social ties (Ling 2008), many participants in my study, especially those under 30 years of age, discussed their understanding of their mobile devices as an explicit tool for initiating new social ties, especially those that are romantic in nature, specifically through smartphone applications. The data I have collected relating to online, and more specifically smartphone-based dating will be further discussed, but it

is operative to note here, in the context of the literature, that people do use their phones now to actively establish new social ties, and in particular, those of a romantic/intimate nature.

1.3.2 Key Concepts in the Sociology of Love and Relationships

Given that the focus of my research project is to develop an in-depth understanding of the qualitative intersection of mobile communication and committed relationships, having a strong knowledge of the existing literature within the subfield of the sociology of love and relationships offers the opportunity to bridge the research gap between committed relationships and technology. This step in the exploration of the literature also reflects a procedural step in the methodological structure of my project. In the same way that I have first reviewed the recent and relevant literature on smartphones and will now review the recent and relevant literature on committed relationships, my interview guide was similarly organized so that the first set of questions I asked participants related to their general understanding and use of smartphones, and the next set of questions I asked them related to general committed relationship inquiries. To best organize a discussion of this literature, three specific areas will be explored: (1) understanding the love/relationship connection; (2) perceived factors for relationship success; (3) methodological tools that have been developed to measure and study romantic relationships.

Understanding the Love/Relationship Connection

To anchor both my data and this discussion of it, first, some important terminology must be identified. Robert Sternberg's 1986 delineation of the concept of "committed relationships" (1986), will be used in the application of the term for the purposes of my research. This definition is commonly referred to across the literature on love and relationships. Sternberg's proposition of the triangular theory of love is built on his earlier work in which he tested multiple alternative theories to conceptualize the definition of love, and the elements that comprise it. The specific

discussion and operationalization of Sternberg's triangular theory, since it is so integral to the development of my study, will be later explored in thorough detail in my theory chapter

Using Sternberg's (1986) theory as a springboard, however, many subsequent projects built on these conceptual dimensions, concluding, for example, that, "there is a reliable latent structure of how people understand love, and that this structure is characterized by three somewhat intercorrelated dimensions of passion, intimacy, and commitment" (Aron and Westbay 1996: 550). Much of this earlier research relied heavily on a diversity of research techniques and samples, like Aron and Westbay (1996) who conducted six progressive studies, gathering quantitative survey and qualitative questionnaire data from a sample of North American college students. These studies led them to conclude that their findings were similar to Sternberg's, with regard to types and amounts of love.

Though Sternberg's triangular theory of love (1986) constituted a viable starting point to guide my methodological choices and understanding of what a committed relationship constitutes, it is important to acknowledge, according to the wider literature on relationships, that love is not the only factor related to intimate relationships. By the same token, it is clear from the popular use of the term, that "love" is often colloquially used as an all-encompassing concept to refer to a variety of relationship-related ideas. In fact, some studies have revealed that **none** of the participants who "were self-identified as 'happy' in their marriage and who had been married at least 35 years...identified love as being the 'key' to their enduring marriage" (Estrada, 2009: 2). Rather, "compromise, faith/religion, forgiveness, communication, spending time together, and sharing common interests were common themes identified among the couples as being the 'key' to their enduring marriage" (Estrada, 2009: 2). Communication clearly plays a central role in the maintenance of committed relationships. Exploring how smartphones have impacted that process

constitutes the main goal of my study, and will provide insight into the ways in which people perceive the factors for relationship success.

Perceived Factors For Relationships Success

While some works in the sociological literature on romantic relationships focus on forming linkages that connect concepts of love, for instance, to the operation of committed relationships, other areas of research have taken alternative orientations. For example, many studies, instead, emphasize the impact of beliefs on committed romantic relationships (Knee, 1998), some revealing that “the relation between initial satisfaction and relationship longevity was stronger for those who believe in romantic destiny...a belief in destiny holds that potential relationship partners are either meant for each other or not” (Knee, 1998: 360). People’s underlying beliefs clearly play a significant role in terms of how they operate within their relationships, and some studies, in exploring this reality, even reference implicit theoretical beliefs people hold, comparing those who subscribe to a soulmate theory, and believe finding the right person is paramount for a satisfying relationship, to those who subscribe to a work-it-out theory, and believe that effort is most important for building a successful relationship (Franiuk, Cohen, and Pomerantz, 2002). This research has largely found that “for soulmate theorists, feelings that one’s specific partner is ideal predicted relationship satisfaction and relationship longevity to a greater extent than for work-it-out theorists” (Franiuk, Cohen, and Pomerantz, 2002: 345). Although my focus in talking with participants was not necessarily on defining or labeling whether each of them was a “soulmate theorist” versus a “work-it-out theorist,” one of my focuses was on identifying and understanding how a person’s beliefs play a role in the navigation of smartphone technology use within the context of their committed relationship. There were several examples in my data of cases in which both members reported either sharing or conflicting with their respective partner’s views on smartphones and their use. While I cannot

tie my findings to the ultimate longevity of my participants' relationships, as this particular body of literature does, it is worthwhile to note that people in relationships regularly negotiate their smartphone use in tandem with their partners, based on their individual and shared beliefs.

Methodological Tools

Yet another focus in the literature on romantic relationships is the development of specific instruments to quantify various aspects of relationships, as methodological measures. For example, the Relationship Belief Inventory (RBI) (Eidelson and Epstein, 1982) is comprised of 40 items designed to evaluate five “dysfunctional” beliefs in marriages: 1) disagreement is destructive to a relationship; 2) partners should be able to know each other's thoughts and feelings without overt communication; 3) partners cannot change themselves or their relationships; 4) one must be a perfect sexual partner; and 5) the sexes differ fundamentally in their personalities and needs. Many studies throughout the literature make use of the RBI, and from its use, other supplementary instruments have been developed (Epstein, Pretzer, and Flemming, 1987; Jones and Stanton, 1988; Moller and Van Zyl, 1991). While the RBI is not used directly in my study, the conceptual categories into which it separates “dysfunctional” (Eidelson and Epstein, 1982) relationship beliefs are. Many of these same categories were invaluable to me in coding my data, as will be discussed later.

Other specific methodological instruments have been developed and make multiple appearances throughout the literature. These include, amongst others: Hendrick and Hendrick's (1986) Love Attitudes Scale (LAS), which measures six love styles: eros (passionate), ludus (game playing), storge (friendship based), pragma (logical, “shopping list”), agape (all-giving, selfless) and mania (possessive, dependent); Fletcher and Kininmonth's (1992) close Relationship Beliefs Scale (CRMS) which is based on measuring 18 different beliefs, each quantified by three Likert-scale items; and Sprecher and Metts' (1989) Romantic Beliefs Scale

which targets four specific beliefs about romantic relationships, allocated as: love finds a way (love can overcome barriers and challenges), one and only (there is only one person whom we can truly love), idealization (the beloved will meet one's highest ideals), and love at first sight (love can strike without prior interaction). While these various instruments are viable attempts to measure romantic relationships, the results derived from them lack the dimension of including the narratives that come from an in-depth qualitative research approach. My data alternatively speak to the gaps in the literature by providing some corresponding qualitative data, specifically related to smartphones in long-term relationships, and will perhaps motivate further lines of inquiry in this substantive area for both quantitative and qualitative approaches, alike.

1.3.3 Cellular Phones and Committed Relationships

A more focused search of sociological databases yields a very limited number of publications on my specific research topic: the intersection of smartphones and committed romantic relationships. From the various databases, many of the same articles surfaced and resurfaced, and in most cases they cited one another, indicating a point of saturation in the literature available. In total, 12 publications are available that focus explicitly on cellular phones and romantic relationships; and among these studies, there is great variation and specificity in approaches to the topic. Where this collective set of research can be seen as problematic, is first, in providing in-depth qualitative insight into people's experiences, and second, in terms of its limitations in offering a more widely applicable model to bridge the two substantive areas. However, where it may be seen as advantageous, particularly in guiding my research and theory progression, is in providing me with a manageable point of engagement between my data and theory development (Luker, 2009) that I can use to address questions that "fall at the intersection of what has come to be called 'public sociology'...questions that have important implications for

the larger society” (Luker, 2009: 2) Generally, as this literature relates to my work, it can be broadly separated into three areas which I will systematically explore: (1) understanding the inherent connection between cellular phones and committed relationships; (2) how couples make use of specific smartphone features; and (3) perceived impacts of mobile phone use on committed relationships.

Understanding the Inherent Connection between Cellular Phones and Committed Relationships

The wider literature on cellular phones provides great insight into why and how mobile technology has become so pervasive in recent years. Similarly, the particular literature related to cellular phones and committed relationships, also reveals more specific information about why and how mobile technology has become so pervasive in the context of these relationships. For example, some studies focus on how individuals use computer-mediated communication, ranging from social networking sites, to smartphones, and instant messaging in their cross-gender intimate relationships to navigate around traditional cultural norms (Zaidi, Couture, and Tyndale 2012). Research in this area has found that computer-mediated communication, a term broadly applied to include smartphones as well, is used to “initiate and build relationships, remain connected with partners, engage in discreet communication, to ease uncomfortable and intimate discussions, and to communicate when face-to-face interaction is not available” (Zaidi, Couture, and Tyndale: 2012: 175). These insights have a certain general applicability, but are especially relevant when considering culturally specific norms that frame both people’s relationships and their technology use. Technology has become a means of “adhering to norms of gender-separation while covertly engaging in cross-gender relationships...allowing for maintenance of family honor...while fulfilling their perceived need for cross-gender friendships and romantic involvements” (Zaidi, Couture, and Tyndale: 2012, 175). Despite the fact that my research is not as heavily predicated on delineating the connection between cultural expectations and

smartphone use, this body of literature does provide a foundation for understanding how and why individual social actors are motivated to use smartphone technology as they do. While my participants were recruited solely because they are people who are involved in a self-identified committed relationship that use smartphones, cultural differences did arise as a relevant thematic category.

Although this research is specific to vectors related to culture, ethnicity, and race, for example, it reveals, on a larger social level, that modern mobile communication technology is making many committed relationships possible in the first place. Without these devices, many of the connections people are forming in the pursuit and practice of romantic commitment would not exist. There is an inherent relationship between people's operation in committed relationships, and the application of their smartphones as a tool of that operation.

Smartphone Feature Use in Long-term Relationships

A second broad area into which the literature on mobile phones and romantic relationships can be grouped relates to how couples make use of specific features their smartphones offer them. As has previously been discussed, the term "smartphone" refers to a programmable mobile phone that includes high-speed data connection, color screen, camera, local connectivity (bluetooth and infrared), web browsing, text and multimedia messaging, e-mail, and games (Raento, Oulasvirta, and Eagle, 2009: 429). There are more features that now exist to facilitate mobile communication between members of a couple, than have ever existed in history. The substantive literature reflects this reality, as there are several publications that are devoted to specifically understanding how smartphone features are differently used in committed relationships, and what this differential use means.

One particularly unique arena of research in this subfield deals specifically with the sending and receiving of sexually suggestive images, videos, or texts on smartphones

(Wiesskirch and Delevi, 2011; Wiesskirch and Delvei, 2013). In the earlier literature, there seems to be a strong focus on adult attachment theory, which indicates that the “attachment one forms in infancy to a caregiver may form a basis for the attachment one forms later with a romantic partner” (Wiesskirch and Delevi, 2011: 1697). Using this framework to understand the implications for modern smartphone use, relationships have become apparent between ‘attachment anxiety’ and the practice of sending and receiving, as well as the acceptance of, sexting (Wiesskirch and Delvei, 2011). In the latter literature, using similar methodological designs, a shift in the related research focus has become centered on uncovering what personality traits could be predictors of high-risk sexting behavior (Wiesskirch and Delevi, 2013). Social-psychological studies in this area found that “there was a significant correlation between attachment avoidance and the Relational Expectation attitude of sexting” (Manuel, 2012: 38).

The central goal of my research is to understand the implications that smartphones have had for committed romantic relationships. In order to determine these implications, in my Discussion chapter, I will first delineate how my participants conceptualize their own participation (or non-participation) in the pervasive cellular culture, and second, I will aim to make sense of their daily experiences with the technology. Sexting, as the research in this particular area indicates, is just one of many forms of communication that couples engage in through smartphones, and being able to situate my participants, from a qualitative point of view, amongst the existing quantitative findings in the literature will help to create a clearer picture of the daily experiences for couples using smartphones in their committed relationships. The existing quantitative research has revealed a breadth of information about attitudes and attachment styles, but our grasp of the issue could now benefit from an in-depth narrative point of view, one that attempts to understand the social phenomenon from the participants’ subjective perspectives. While ‘sexting’ did not directly emerge as an immediately relevant conceptual point

of discussion in my data set, many couples did discuss the various behaviors and interactions they engage in through their smartphones with their partners that support the conception of smartphones as a tool of relationship building.

Perceived Impacts of Mobile Phone Use on Long-Term Relationships

A third and final area into which the literature on mobile technology and committed romantic relationships can be divided addresses how people perceive the impacts of smartphones on their relationships. Some studies in this category of literature make direct use of the types of methodological tools earlier explored. For example, research based on the Experiences in Close Relationships-Revised instrument (Weisskirch, 2012) found that “attachment anxiety was associated with more estimated text messages sent to and received from the romantic partners, and actual text messages sent to and received from romantic partners” (Weisskirch, 2012: 281). What this finding reveals is that, as individuals enter into romantic relationships, they bring with them conceptions of meaning based on their own personal experiences, and even insecurities, which then become applicable to their beliefs and perceptions in the relationships, even related to technology use. This assertion lends itself especially well to my research, as countless examples emerged in the data set that supported this notion. For example, many participants discussed their personal feelings on the patterns of communication that are characteristic of their respective relationships, and many of them alluded to the impact of their personal histories on these experiences.

Other literature on mobile phones as technological components of romantic relationships drew heavily on quantitative measures, and preexisting theoretical frameworks. For example, some studies are premised on the use of methodological tools like the RELATE instrument, a well known “300 plus-item questionnaire designed to evaluate the relationship between romantically involved partners” (Coyne, Stockdale, Busby, Iverson, and Grant, 2011: 153).

Research using the RELATE instrument has found that, “the majority of individuals frequently used cell phones and text messaging to communicate with their partner, with ‘expressing affection’ being the most common reason for contact” (Coyne et al., 2011: 150). My data speaks to this study particularly well in terms of formulating a baseline understanding for the ways in which people define smartphones and their use in the context of their romantic relationships. For instance, a main theme to be later discussed is the perspective that many people hold of their smartphones as tools of relationship building. The majority of participant interviews indicate that people rely on their devices to affirm and reaffirm their relationships in both romantic and nonromantic ways.

Much of the research connecting modern mobile phones to their use in committed relationships paints a relatively positive picture of the experience. For example, some studies have found that “overall, more mobile calls in romantic relationships are associated with positive relationship qualities” (Jin and Pena, 2010: 39). What remained unclear, however, in embarking on my study, is whether people in positive relationships happen to want to communicate more, if people are able to foster positive relationships as a result of communicating more, or if there is some simultaneous effect of causation in these relationships. From my data, it seems the latter proposition is most accurate, and can be tied theoretically to the notion of ‘emergence’ (Durkheim, 1964), an idea I will further explore in later sections.

Together these studies reveal that different behavioral patterns, like texting and calling more frequently, may be linked to the deductions people make about how much affection their partner feels towards them (Coyne et al., 2011), and the quality of their relationships overall (Jin and Pena, 2010), and hence may tell us something about the perceived impacts of mobile communication technologies on committed relationships. These findings have been central to my study, as they informed many of my discussions with participants.

As far as quantitative research goes in this substantive subfield, there are multiple interesting and insightful instances of research relevant to my study that focus on the perceived impacts of smartphones on relationship outcomes (Duran, Kelly, and Rotaru, 2011; Miller-Ott, Kelly, and Duran, 2012; Lansdown and Stephens, 2013). For example, for some of these studies, the operative focus relates to the development of rules for phone use that could predict relational satisfaction between romantic partners. Results indicate that “cell phones are very important as a means of communicating, and that satisfaction with cell phone usage and the relationship are strongly and positively correlated. Rules regarding relational issues and contact with others helped predict cell phone satisfaction, and rules regarding relational issues, monitoring partner usage, and repetitive contact contributed to relationship satisfaction” (Miller-Ott, Kelly and Duran, 2012: 17). Themes related to the connection of relationship growth to technology growth, privacy and surveillance, and even forms of communication, all derived from my data set, support and build on these findings, particularly those directly intended to explore the link between relationship and smartphone satisfaction.

The research in this particular area is perhaps the most important to my project, as it bridges the perspectives from which this data can be examined. Not only does it explore how people are using smartphones in their relationships, but it also delves into issues of satisfaction with the technology, in combination with relationship satisfaction. This presents yet another interesting and relevant connection to my data set, as my findings, in conjunction with the literature, have illuminated issues like whether and how particular types of smartphones, and the features/services they offer, influence communication patterns and impact the quality of the relationship overall, among other insights.

The examples of qualitative studies at the specific substantive intersection of research connecting smartphone use to committed relationships are significantly more limited than their

quantitative counterparts (Khunou, 2012). This research fits within the broad category of studies on the perceived impacts of mobile phone use on committed relationships, and is heavily predicated on qualitative thematic categories related to concepts embedded into intimate relationships, like issues of fear and rejection, concepts of self and privacy, as well as new forms of conflict that smartphones bring into romantic relationships (Khunou, 2012). Ultimately, this research found that “cell phones challenge traditional notions of intimate relationships,” particularly by way of reducing feelings of fear when starting, and especially when attempting to start one (Khunou, 2012: 169). This area of the literature, again, is most significant to my work since it is precisely these thematic patterns that I have sought to understand and will later explore with the goal of delineating the daily experiences of couples using smartphone technology. Since Khunou’s (2012) research was based on interviews conducted with only six participants, the wider application and validity of her findings are limited. My research will help to improve on this limitation.

1.4 Theoretical Framework

The research that is focused on the intersection of smartphone use and committed relationships is not only relatively new, but quite limited. Specific theoretical schemes are used in studies on mobile communication technology, even those predating modern smartphones, and love and relationships, as two separate substantive bodies of research, but there are no theoretical models that combine the two concerns. With this in mind, in terms of a theoretical orientation for my research, I will be using the methodological guidelines offered by a middle range theoretical approach to direct my exploration of empirical propositions, framed as research questions, and to ultimately arrive at a potential baseline theoretical model for this substantive area. Middle range theory, in a technical sense, refers to “theories that lie between minor but necessary working

hypotheses that evolve in abundance during day-to-day research and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behavior, social organization, and social change” (Merton, 1949: 448). Middle range theory, as the name suggests, is a midpoint between overarching, general theories that are too greatly removed from the specific elements of the social phenomenon being studied, and the detail-oriented theoretical models that rely heavily on the description of particular cases, and are not generalized at all (Merton, 1949). In general, middle range theoretical approaches are more or less standard practice in much of sociology, since they allow for research data to speak for themselves, especially in contrast to earlier theoretical traditions in the discipline that relied more heavily on inserting newly emerging research findings into preexisting grand theories. This theoretical approach offers a level of flexibility that is unavailable through other theoretical forms, and has created the space for the data I have collected to lend itself to a newly emerging model.

As previously discussed, there are several generalized theories available in the areas of smartphone research and love and relationship research, separately. As well, there is a much smaller range of literature that focuses on the intersection of these two substantive research areas, too small to have adequately developed any generalizable theoretical models. Given these two realities in the literature, a middle range theory approach is the ideal theoretical formulation for my research, since it has enabled me to draw on individual, applicable propositions that have been developed in the existing body of research, while still offering me the opportunity to allow the emerging data to contribute to the construction of an updated theoretical model. Throughout the data analysis process, as themes emerged, I addressed and readdressed the propositions found in the existing body of literature to give context to my findings. As a result, I have been able to focus my analytical process on discovery of new and/or varying concepts and the possible development of an updated theoretical framework that bridges the sociological research on

smartphone technology and the sociological research on love and relationships. This emphasis on discovery is rooted in suggestions by researchers like Luker (2009) that compel others to engage in an iterative process, or ‘salsa dancing’ through the research process as a back and forth engagement between data and theory development, rather than placing a heavy emphasis on verification.

Some examples of the types of claims put forth in the existing body of literature that I have used as empirical propositions to guide my research inquiry include:

1. “Overall, more mobile calls in romantic relationships are associated with positive relationship qualities” (Jin and Pena, 2010: 39). What remains unclear though, is whether people in positive relationships happen to want to communicate with each other more, if smartphone communication fosters positive relationships, or if there is a contemporaneous effect in this relationship.
2. “Attachment anxiety is associated with more estimated text messages sent to romantic partners” (Weisskirch, 2012, 281). This finding reveals that as individuals enter into romantic relationships, they bring with them conceptions of meaning based on their own previous experiences, which then become applicable to their beliefs and perceptions in their current relationship, even related to technology use. How does an individual’s past experiences impact their choices and behaviors in their current relationship? How have people used smartphone technology in the past, and how have these earlier experiences informed their mobile communication choices in their current relationship?
3. “The majority of individuals within the study frequently used cell phones and text messaging to communicate with their partner, with ‘expressing affection’ being the most common reason for contact” (Coyne et al., 2011: 150). To further this line of inquiry the question may be asked – how do couples define affection, and in what ways is the expression of affection through smartphones interpreted by individuals in a couple? Does it matter who initiates contact first? Do couples knowingly or unknowingly develop patterns of mobile communication with each other over time?

4. “Cell phones are very important as a means of communicating, and satisfaction with cell phone usage and the relationship are strongly and positively correlated. Rules regarding relational issues and contact with others helped predict cell phone satisfaction, and rules regarding relational issues, monitoring partner usage, and repetitive contact contributed to relationship satisfaction” (Miller-Ott, Kelly, and Duran, 2012: 17). How do couples go about monitoring their partner’s usage of smartphones? How do different individuals and different couples negotiate issues of privacy and trust as they relate to smartphone use in their relationships?

My methodological processes, ranging from interviewing participants to data analysis, have been guided by my exploration of these propositions, and other relevant empirical observations from the literature. I have proceeded simultaneously with data collection and analysis in order to avoid the use of preexisting grand theories by focusing the analytical process on the discovery of new concepts and the establishment of new theories (Charmaz, 1983). Finally, to guide this methodology, theoretical sampling at later stages of data collection were used to refine, elaborate, and exhaust conceptual categories that emerged from initial rounds of sampling. This process will be discussed further, among other methodological choices, however, here, it should be noted that the attempt to engage in theoretical sampling was a direct outcome of the goals of middle range theory, which emphasize the importance of allowing data to guide the development of conceptual models.

This choice for theoretical orientation has significant implications, especially for my methodological decisions. These impacts on methodology will subsequently be discussed in greater detail, however, to summarize, taking this theoretical approach in the context of my research means, first, data collection and analysis occur simultaneously in an iterative, “zigzag” process, going back and forth between data collection and analysis. This is intended to allow for constant comparative analysis of the data collected and various emerging categories and concepts, until the point of saturation (Creswell, 1998). In terms of my research process, I began working

to develop analytical insights as soon as I first started collecting my data, thereby allowing me to establish a deeper understanding of that data during the collection phase, and to provide me with confidence in the adequacy of the data collected along the way (Weiss, 1994). Second, though existing theoretical frameworks in my two major substantive fields (smartphone technology and relationships) have been used to guide my theoretical and methodological choices, no preexisting theoretical framework that merges the two substantive areas has been used as a model for organizing the data collected. Rather, the processes and products of the research have been shaped from a combination of empirical propositions derived out of the existing literature and the data found (Charmaz, 1983). Third, methodological choices in participant sampling and analysis techniques consisted of doing several rounds of participant recruitment based on emergent theoretical themes (Charmaz, 1983). Finally, the research process itself has been treated as part of the data set, meaning that the methodological choices, decisions, and practices that I have made throughout the research cycle have been subject to analytical consideration in the establishment of a new theoretical model for this substantive area of research (Charmaz, 1983).

In working towards a valuable analysis of my research data, there were a number of theoretical frames upon which I relied to guide my approach to middle-range theory work. Here I have outlined the most relevant existing theoretical models that have informed my understanding, analysis, and interpretation of my study data. First, Sternberg's Triangular Theory of Love (1986) will be explored, particularly because it has served to ground the methodological design of my study. Thereafter, I will bring together particular elements of five other theoretical schools of thought that have collectively aided me first, by providing a lens through which my highly diverse participant data can be interpreted, and second, by giving me several valuable concepts that have contributed to the development of my own proposed theoretical model. I will explore these five theoretical frameworks in the following order: 1) Social Constructionism (Berger and

Luckmann, 1966); 2) Networked Individualism (Rainie and Wellman, 2012); 3) Technical vs. Social Determinism and the Affordances and Domestication Approaches (Ling, 2004); 4) Dramaturgy (Goffman, 1997); and 5) Identity Theory (Baumeister, 1986). While each of the five schools of thought consist of a much wider array of ideas in terms of their general disciplinary understanding and practice, I have drawn on some specific elements from each that best serve to enhance the discussion of my research data and the formulation of my suggested theory.

1.4.1 Sternberg's Triangular Theory of Love

Sternberg (1986) proposes that love has three foundational elements: 1) **intimacy**, which “encompasses the feelings of closeness, connectedness, and bondedness one experiences in loving relationships;” 2) **passion**, which “encompasses the drives that lead to romance, physical attraction, and sexual consummation;” and 3) **decision/commitment**, which “encompasses, in the short term, the decision that one loves another, and in the long term, the commitment to maintain that love” (Sternberg, 1986: 119). Together, Sternberg claims, these three elements, and the way they interplay relative to each other, dictate both the amount and type of love people experience in romantic relationships (Sternberg, 1986). It is this theoretical conceptualization of the foundational elements of love, in particular the third element of decision/commitment, that has been used as a methodological parameter for my study to sample participants in couples who self-identified their relationship as “committed.”

Sternberg (1986) elaborates that the “amount” of love experienced in a committed relationship is dependent on the absolute strength of the three components of intimacy, passion, and decision/commitment; and the type of love people experience in these relationships can be divided into any one of the following eight categories: nonlove, liking, infatuated love, empty love, romantic love, companionate love, fatuous love, and consummate love. Nonlove “refers to

the absence of all three components...and characterizes the majority of our personal relationships, which are simply casual interactions” (Sternberg, 1986: 123). Liking is comprised solely of the intimacy component in the absence of the passion and decision/commitment elements, and refers to feelings most commonly found in friendships where feelings of closeness, bondedness, and warmth are present, without intimate or sexual inclinations (Sternberg, 1986: 123). Infatuated love, similarly, is found in relationships based solely on the element of passion, in the absence of the intimacy and decision/commitment components, that “tend to be characterized by a high degree of psychophysiological arousal, manifested in somatic symptoms such as increased heartbeat...increased hormonal secretions, erection of genitals, and so on” (Sternberg, 1986: 124). Sternberg defines the fourth kind of love, empty love, as “love that emanates from the decision that one loves another and has commitment to that love in the absence of both the intimacy and passion components” (1986: 124). Romantic love, in contrast, refers to love derived from “a combination of the intimacy and passion components...in essence, it is liking with an added element” (Sternberg, 1986: 124). Companionate love “evolves from a combination of the intimacy and decision/commitment components,” and represents for all intents and purposes, a long-term, committed friendship, “the kind that frequently occurs in marriages in which the physical attraction has died down” (Sternberg, 1986: 124). Sternberg discusses the seventh type of love, fatuous love, as a combination of the passion and decision/commitment components in the absence of intimacy; and the eighth, and final type of love, consummate love, as “complete love that results from the full combination of the three components” (1986: 124).

While Sternberg’s specific typology of the eight different kinds of love will not necessarily be central to my data analysis or discussion, the model which he provides towards understanding the processes at play in committed relationships will be. The specific operationalization of this terminology for my methodological purposes will be later discussed.

However, on a theoretical level, it is important to note that Sternberg's framework has served to not only inform my data collection and analysis procedures, but also my theory development.

1.4.2 Social Constructionism

The first of the other five theoretical areas that have more directly influenced data analysis and theory development for my research is Social Constructionism. I selected this orientation because, on the widest, most broad social level, all social actors live in a socially constructed world. As evidence that I will explore later speaks to, my participants, like people in general, engage in highly complex social processes consisting of interactions that influence their perceptions, meaning-constructions, beliefs, and as a byproduct of all of this, their behaviors. Therefore, Social Constructionism has been applied as a lens through which the social world in which my participant couples live and operate can be understood.

Social Constructionism has a longstanding history in sociology because of its discipline-wide applicability. As a theoretical approach, it stems from the subfield of the sociology of knowledge, and at its most basic level, purports that an individual's consciousness, the way their mind works, is determined by their interactions with others in society (Berger and Luckmann, 1966). At the root of this perspective is the belief that, as people interact with others, they internalize knowledge about those interactions that then represent the meanings according to which they later act. The knowledge produced by these interactions becomes the collective and socially constructed knowledge of the entire society. Berger and Luckmann (1966) came to formulate this perspective using a very specific framework.

In attempting to answer the question, "how is it possible that subjective meanings become objective facticities?" Berger and Luckmann (1966) identify three key relationships between the

individual and society that they believe to be integral to this process: 1) society is a human product; 2) society is an objective reality; and 3) humans are a social product.

To deal first with how society is a human product, Berger and Luckmann (1966) assert that, as people interact with each other, they create patterned habits of behavior, and they learn to recognize congruent patterns in others' behavior as well. Berger and Luckmann (1966) go on further to say that, as these patterns become recognized and entrenched in our interactions, we engage in processes of typification and sedimentation. We group people into categories and then reinforce our typifications of them by selectively perceiving and storing information about people and our interactions with them only as they are relevant to our constructions. The ultimate results from this process are 'recipes' for social life, which are embedded institutionally and essentially form the foundations of our collective social knowledge (Berger and Luckmann, 1966). Therefore, society is a human product because every institution and every interaction upon which society is built is the outcome of these human processes of typification and sedimentation (Berger and Luckmann, 1966).

Now that there is a foundational understanding of how society gets produced by people, the next element of the theoretical model involves understanding how those elements of society become objective realities, or elements that appear to exist outside of individual perception and interpretation. Berger and Luckmann (1966) claim that as people create society through their interactions, they then have the tendency to reinforce existing patterns. Part of the way that people reinforce existing patterns is through processes of legitimation, which refer to creating ideas/explanations to justify the existing state of society and to even account for different beliefs. There are four particular types of legitimation that Berger and Luckmann (1966) identify. First, they discuss incipient legitimation, which relies on affirming traditional beliefs, for example when people explain social practices by claiming, "This is just how things are done" (Berger and

Luckmann, 1966). Second, theoretical legitimation refers to the way people justify patterned behavior using simple but theoretically conceptual ideas, often in the form of elements like proverbs, sayings, and folk tales (Berger and Luckmann, 1966). For instance, the phrase “an apple a day keeps the doctor away” is an example of a theoretical legitimation that allows people to reinforce the importance of regularly eating healthy. Third is institutional legitimation, which refers to the way order is maintained in our social institutions by tying the body of knowledge from those institutions to specialized personnel who are qualified to transmit institutional order through specialized processes and procedures (Berger and Luckman, 1966). For example, as I will later discuss, some participant data revealed how people have concerns for the institutional ties their modern smartphones force them to forge, like when they agree to contractual terms and conditions that are unavoidable in the setup of these devices. Ultimately, Berger and Luckmann (1966) emphasize that, as people collectively participate in these forms of legitimation, we end up almost worshipping the patterned social behavior we engage in as a form of reification. The final result of all these legitimation processes is what Berger and Luckmann (1966) call a total ‘Symbolic Universe,’ or a body of theoretical traditions that bring together different groups of meaning and encapsulate the institutional order of society in a symbolic totality. While it may be too early to make this claim based only on my preliminary data, it seems that modern smartphones have not only become fully incorporated into our existing symbolic universe, but they have also compelled the formulation of entirely new elements in that universe. For example, the domination of only a select few brands of smartphone speaks to the ways in which people engage in processes of legitimation.

Finally, once the social structure exists beyond the individual, in an objective sense, then, as new generations of individuals enter the society, they internalize those same social structures and beliefs through socialization, to the extent that they become part of our consciousness or

personal repertoire of meanings (Berger and Luckmann, 1966). In essence, through these three continuous processes, people construct the social reality that collectively surrounds them.

In terms of the pertinence of this discussion to my research, there were many examples throughout my data set of processes of social construction at work. From general perceptions of modern mobile communication devices, to the way people operate in their committed relationships, and especially at the intersection of the two experiences, people are continuously constructing new social meanings that are, in turn, becoming embedded in our social structure. My data shows, for instance, how smartphones have drastically altered the way people establish their committed relationships from the very beginning, and reveal how the social construction of meaning around these processes have lead to overarching changes to the total social symbolic universe (Berger and Luckmann, 1966)

1.4.3 Networked Individualism

The second of the five theoretical orientations that have served to aid in my data analysis and theory formulation processes is Rainie and Wellman's (2012) 'Networked Individualism.' After reaching the underlying theoretical understanding that people live in a socially constructed world, accounting for my use of Social Constructionism as a theoretical lens, the next, most cogent theoretical step is to see that the individuals who operate in this socially constructed world, do so as networked individuals.

In light of the major developments we have seen in smartphone technology in recent history, many scholars have proposed that we are moving towards an individualist, isolationist, technocratic social system in which people are becoming increasingly removed from their social relationships (Rainie and Wellman, 2012). Rainie and Wellman (2012) conversely argue that it is a fallacy to create a rigid dichotomy between the group and the individual. Instead, they assert

that, though it is true that technology has motivated a move away from traditional ‘groups,’ we have not moved towards isolated individualism, we have moved towards what they call “networked individualism” (Rainie and Wellman, 2012).

Rainie and Wellman (2012) propose that we now live in a “networked operating system” rooted in networked individualism, which is premised on the idea that each person is tied into a large, diverse, sparsely knit network, like a node in an operating system. They argue that, “the hallmark of networked individualism is that people function more as connected individuals and less as embedded group members” (Rainie and Wellman, 2012: 12). In the “world of networked individualism...the revolutionary social change from small groups to broader personal networks has been powerfully advanced by the widespread use of the internet and mobile phones” (Rainie and Wellman, 2012:12), and I am further arguing that the combination of these two elements, the internet on one hand, and the mobility of it that smartphones offer on the other, have led to even greater perceived shifts in people’s lives and relationships. Rainie and Wellman (2012) emphasize that a networked operating system is characterized by, “social networks that are more diverse and less overlapping than previous groups” (9). This is because, they suggest, individuals have more “capacity to act on their own,” and are required to “develop new strategies and skills for handling problems” (Rainie and Wellman, 2012: 9). While the extent to which networked individualism has become the new norm in people’s lives remains empirically untested and unclear, my participant data lend some support to all of these characteristics, confirming the existence of networked individualism as an emerging feature of modern society. For instance, as will be later discussed in greater detail, analysis of participant interviews has helped me uncover the new communication challenges and the need for new communication resolutions that smartphones have introduced into committed relationships.

“Mobile phones have become key affordances for networked individuals as they have become easier to carry, cheaper to use, and able to function in more places,” (Rainie and Wellman, 2012: 84) and smartphones have a particularly unique set of affordances beyond these basic features because of the “proliferation of smartphone applications...which have developed a life of their own and serve users in different ways” (Rainie and Wellman, 2012: 84). In fact, the key element of this theoretical framework for the purposes of my research relates to a concept that Rainie and Wellman (2012: 87) cite from the work of James Katz and Marc Aakhus, which they call the “apparatusgeist,” or the “relationship of people to digital technologies and how that changes the way people relate to each other and to larger social institutions” (Rainie and Wellman, 2012: 87).

In terms of how networked individualism, as an approach, relates to my work, a few important points must be noted. First, in past eras of history, committed romantic relationships were established in a variety of limited ways. For example, meeting a potential partner was likely at work or school, through family or friends, or maybe even via the help of a matchmaker. Now, in an era of networked individualism, where each individual is connected to a virtually limitless, and growing, number of potential networks, the establishment of these core relationships has been revolutionized. As my data shows, networked individuals are constantly forming connections, communicating within, and controlling their relationship interactions by virtue of the smartphone’s capabilities as a device that gives people access to their individually networked worlds. Second, and as a direct byproduct of these processes, as Rainie and Wellman (2012) conclude, modern devices do not isolate people; they bring them together in ways of their choosing, rather than as a result of circumstances. This centralization of control in the networked individual is a form of technological empowerment that I believe, based on my data, is only possible because of the nature of smartphones. My later analytical discussion will delve into the

ways in which this concept of networked individualism (Rainie and Wellman, 2012) has served to contextualize my interpretation of data that reflects how individuals can operate as “nodes” in a networked operating system, but still engage with their partners as part of their committed relationships.

1.4.4 Technical Determinism vs. Social Determinism and the Affordance & Domestication Approaches

Taking for granted that the world is a socially constructed place in which networked individuals interact, the next logical theoretical step to take would be to make sense of the place that the technology has in this context. Specifically, Ling’s (2004) delineation of various competing perspectives like the technical versus social determinism debate, and the affordance and domestication approaches, creates the intellectual and theoretical space necessary to begin understanding how smartphones have affected the operation of networked individuals in our socially constructed world.

Rich Ling (2004) discusses some of the typical sociological perspectives into which the exploration of the relationship between technology and society can be categorized. For example, he distinguishes between a “Technical Determinist” approach, which subscribes to the idea that changes in technology dictate outcomes in society, versus a “Social Determinist” approach, which subscribes to the idea that changes in society dictate outcomes in technology (Ling, 2004). There are many examples across my data set of findings that I believe can be seen as fitting into either of the two perspectives. It may not be necessary to ultimately decide which one of them has a more viable view, rather the operative question to ask in the debate is, to what extent does society shape technology, and to what extent does technology shape society (Ling, 2004). In fact,

as many of my other theoretical orientations also allude, they are more likely mutually impacting processes, rather than single, static realities.

In his work, Ling (2004) goes further to discuss two additional conceptions of the relationship between technology and society, both of which have served to orient my perspective by giving me frame to interpret and contextualize my data. First, he discusses the “Affordances approach,” which is premised on the idea that technology makes something possible and facilitates some types of behavior as a mechanism that links an individual to the larger social structure (Ling, 2004). Many instances in my data speak to this theoretical proposition, and have become central to many of my analytical discussions to come.

Secondly, Ling (2004) relies on what he calls the “Domestication approach,” which suggests the idea that the successful incorporation of new technologies into society undergoes several predictable steps. The first step is “imagination,” in which people become aware of the technology; second, is “appropriation,” when people begin exploring how the technology can be of use to them; third is “objectification,” during which people personalize the technology and its uses; fourth is “incorporation,” when the technology becomes part of people’s lives; and fifth is “conversion,” during which people become identified with their use of the technology (Ling, 2004). As my upcoming discussion of the data will show, different participants are not only currently at various stages of the domestication process that Ling (2004) outlines, but they also reflect on a wide diversity of experiences that they have encountered while previously moving through earlier stages of the process. Though the objective of my study is not necessarily to explore the technical integration of smartphones into people’s lives, one goal of it is to understand the extent to which people’s relationships to each other are affected by the technology. Thus, the stage of domestication that a person is at in terms of incorporating smartphones into their lives has direct outcomes for the ways in which this integration affects their committed

relationship. The domestication approach, like the affordances approach, can be uniquely and directly applied to my findings, as each step of the predictable process can further be applied to the particular context of device use within committed relationships.

Together, the technical versus social determinist debate and the affordances & domestication approaches have offered me a lens through which I have been able to collect and examine the unique data offered to me by my participants. These frameworks offered by Ling (2004) help to explain how our society of networked individuals came to exist, and furthermore, how it continues to develop via changes in the technology.

1.4.5 Dramaturgy

After exploring the various ways in which the role of the technology can be understood as networked individuals use it in our socially constructed world, theoretically, what must next be considered is the effect of this use. Across the sociological discipline, there are countless theoretical models that offer a frame through which human behavior can be interpreted. Though perspectives like the earlier-discussed social determinism approach place great power over social processes involving people and technology in the figurative hands of society, many other theoretical orientations that have served to frame my analysis afford social actors a great deal more agency in their individual actions, each to varying degrees. Dramaturgy (Goffman, 1997) is one such model that I have especially selected because of its wide applicability in explaining human action in a variety of contexts.

Erving Goffman's (1997) Dramaturgical Model, a classic in sociological literature, essentially uses the metaphor of a stage or theater to describe social life. Goffman (1997) makes the claim that people, in engaging in social interaction, are perpetually putting on performances

to emphasize particular aspects of themselves to others. What aspects get emphasized can relate to anything from cultural scripts, to normative rules, to role expectations, among other factors.

Goffman's (1997) work involves the exploration of a variety of key concepts such as the self, which, according to his theory, is situational, and is determined to a great degree by cultural scripts, the stage or setting, and the audience, rather than by self-attitudes and self-feelings. Interestingly, in terms of my research, the stage upon which the self is operating when engaged in a committed relationship, is often the mobile communication devices themselves. This shift, in incorporating a discussion of the technology into the theater metaphor, has revealing implications in many areas of my data set.

Goffman (1997), in delineating how the Dramaturgical Model operates lays out seven performance dynamics, which I see as fundamentally affected by the incorporation of the technology into our interactions: 1) creating a front; 2) dramatic realizations; 3) idealizations; 4) maintaining expressive control; 5) misrepresentation; 6) mystification; and 7) realness.

First, social actors create a front in which they manipulate the physical setting, expressive equipment, like props or physical objects present in their surroundings, their own appearance and manners as a way of communicating the role that they occupy in the social situation. Second, dramatic realizations refers to the use of gestures or signs in an activity that emphasizes the individual's commitment to a given definition of a situation (Goffman, 1997). As will be discussed in my data, there are many dramatic realizations that occur through the use of smartphones that allow committed couples to emphasize their commitment to a particular definition of a relationship situation. For example, many people perceive and systematically apply specific roles or qualities to both themselves and their relationships partners, like one partner being more easy-going or flexible than the other. Third, idealization refers to the efforts that people engage in to present themselves in ways that include and magnify the values of

society (Goffman, 1997). In essence, people hide certain parts of themselves and reveal other parts of themselves in keeping with societal expectations. Fourth, the idea of maintaining expressive control involves the individual trying to control the expression of their emotions from what are often regarded as spontaneous cues (Goffman, 1997). For example, regulating muscles and bodily gestures to keep in line with the definition of the social situation. Goffman states that “the impression of reality fostered by a performance is a delicate, fragile thing” (Goffman, 1956: 36), and there can be no discrepancies between what people perceive as reality and the performance dynamics a person expresses to reinforce that perception. Fifth, misrepresentation refers to the fact that a person’s gestures/performances are vulnerable to misunderstanding. People do not always interpret another’s performance as it was intended (Goffman, 1997). What makes this fifth performance dynamic particularly unique from the others is the fact that it is less reliant on the individual actor’s own actions and, instead, relies more on how other interacting individuals perceive those actions on the receiving end. Nonetheless, because interactions or, as Goffman (1997) delineates them, “performances,” are based on intersubjectively constructed meanings between at least two individuals, this fifth performance dynamic remains theoretically relevant. Sixth, Goffman discusses mystification, which refers to the maintenance of distance from others with the goal of maintaining a barrier that will not allow a person’s definition of the situation to be impacted by another’s (Goffman, 1997). Seventh, and finally, Goffman refers to realness, which, in essence, is his assertion that people try to make their performances seem real by appearing as sincere and natural as possible (Goffman, 1997).

Though my data speaks to each of the seven performance dynamics to varying degrees, the point is that all seven of them are at least partially relevant to my research findings. Furthermore, though Goffman’s (1997) original theoretical model was proposed at a time that long predated modern smartphones, it has unique applications when considering the use of the

devices by people within the context of their committed relationships. It seems that, in applying Goffman's (1997) theater metaphor, smartphones have come to represent a figurative, digital 'stage' upon which individuals can engage in these performance dynamics through their interactions with others, and in the case of this research, with their relationship partners specifically. The technology itself has implications for how these performance dynamics are applied by social actors, for example, in affecting individuals' definitions of social situations that then, in turn, impact their beliefs and behaviors. As networked individuals operate in a socially constructed world where modern technology has been domesticated enough to offer them an array of affordances, they then engage in a wide variety of behaviors which the Dramaturgical model (Goffman 1997), among many others, can help us to understand.

1.4.6 Identity Theory

The fifth and final theoretical area that has served to inform my data analysis and theory development is related to identity. Identity, since it can be understood as an outward expression of a person's inner nature, should be seen as a product of both individualized, internal processes, as well as social, external processes. These processes are not only wholly reliant on the socially constructed meanings people come to have, but they are also direct outcomes of the networked individual's operation in a world of modern communication technology. Given the domestication and affordances these technologies offer, one of the greatest ways people make use of them is to make sense of both their own and others' identities.

An identity component is any basic unit of self-definition that a person applies to him or herself; they can be indefinite in quantity, but in order for them to qualify as an identity component, they must fulfill one or both of the defining criteria for identity (Baumeister, 1986). Specifically, the defining criteria for identity include: (1) continuity, which refers to the idea that

a component can be part of someone's identity if it remains consistent for that person over time, and therefore contributes to the strength of their identity; and (2) differentiation, which refers to the idea that a component can be part of someone's identity if it helps to distinguish their identity from the identities of others (Baumeister, 1986). Based on this rudimentary delineation of the concept of identity, and what constitutes a component of identity for an individual, the data I have derived from my respondents emphasizes that both smartphones in general, as well as the peripheral options people can make related to them, like choosing a phone case that expresses their personal style, do, in fact, contribute to how people understand their own identity and the identities of others.

Baumeister (1986), in his discussion of identity refers back to Erik Erikson's (1980) classic notion of "identity crisis" and applies it to more contemporary contexts. For example, he applies it directly to the consideration of the role of technology and how it affects processes of identity construction. First, he makes the assertion that people face issues of identity in current western socio-cultural climates because on one hand, there is an increased value for people to foster a unique sense of individuality, and on the other, there is an increasing elusiveness to achieve that unique individuality in our modern mass societies (Baumeister, 1986). There are many reasons why individuality seems so fleeting, and therefore why people are dealing with issues of identity, from the increased complexity of the division of labor, to the dominance of advertising (Baumeister, 1986). In terms of technology specifically, it, too, further contributes to our struggles with identity because it results in the "homogenization of experience" (Baumeister, 1986) This concept refers to the idea that, through technology, we, as a collective social group, are exposed to the same advertisements, to the same media forms, to the same experiences, to the same dream identities, for example in the form of celebrities, making it even more difficult to achieve a sense of unique individuality. In seeking that sense of unique individuality that,

according to Baumeister (1986), is both so heavily emphasized and painfully elusive for many people, people turn to their smartphones to find ways to express aspects of who they are, especially within the context of their committed relationships.

1.4.7 Bridging Theories Towards a New Model

In later sections, I will more thoroughly discuss the particulars of the proposed theoretical model the analysis of my data has brought me to. However, to understand the inherent connections between the theoretical frameworks that have informed my analysis and the theory that I will suggest, the following statement must be considered: Social actors operate in a *socially constructed* (Berger and Luckmann, 1966) world as *networked individuals* (Rainie and Wellman, 2012) with access to *domesticated* (Ling, 2004) smartphone technology that offers them specific social *affordances* (Ling, 2004) to engage in actions such as *identity* (Baumeister, 1986) development that can be understood through frameworks like the *dramaturgical* (Goffman, 1997) model.

In looking more closely at this statement, after addressing the methodological approach of my study, the remaining sections of my thesis will focus on four specific affordances that smartphone technology offers people in committed relationships. Specifically, I will delineate them via a discussion of the ‘Four Cs’ – Connection, Communication, Control, and Constancy – all of which have come to form the foundations of my proposed conceptual framework to bridge the two substantive areas my research is rooted in – modern smartphone technology on one hand, and committed relationships on the other.

CHAPTER 2: METHODOLOGY

2.1 Underlying Assumptions

Before delving into a discussion of the particular methodological tools I am using to guide my research and data analysis, I think it necessary to pause and acknowledge the underlying assumptions that serve to orient my sociological lens in a more general sense. In addition to the relative dearth of qualitative research bridging my two research areas, smartphone technology and romantic relationships, there are a number of ways the qualitative methodology I have opted to use is firmly rooted in my theoretical understanding of the goals of the discipline overall. Sociology, as a field of study, is purposed with the task of describing, generalizing, and explaining human behavior. While the exact method to be used in achieving this purpose varies from researcher to researcher, for me, it is best accomplished through a humanistic approach that seeks to capture the lived experiences of the people being studied (Blumer, 1969). To truly understand how an individual or group of people experiences any social phenomenon, the research methodologies designed to do so must equally balance the capacity of the researcher with the realities of the empirical world. To me, it does not make sense to measure the empirical realities of people's smartphone use in their relationships via a quantitative, statistical methodology, as this would not serve to capture the lived experiences of those I am studying. Therefore, the best and only way to address the research questions I have developed is through a qualitative methodological approach, whereby the only yardstick that can be used to test its effectiveness are the empirical experience of the participants in the real world itself.

Given that the research on smartphones and romantic relationships is limited, and so little of it is from a qualitative orientation, I have two methodological goals: first, to fill that gap in the literature, and second, to develop a baseline theoretical model which subsequent research can build on. As a consequence, the principle methodological tool chosen to collect data for this

research includes an in-depth semi-structured qualitative interview with individuals that self-identify their romantic relationships as “committed.” The decision to focus my research on a sample of committed relationships stems from Sternberg’s Triangular Theory of Love (1986), and its discussion of the three foundational elements of loving relationships: intimacy, passion, and commitment. This latter element, commitment, which in the short term “encompasses the decision that one loves another, and in the long term, the commitment to maintain that love” (Sternberg, 1986: 119), has been used to delimit my sample because it refers to the longevity of a relationship, and logically presumes that couples who are committed to each other have developed the sense of depth in their relationship whereby patterns of communication, for example, have been established. As opposed to investigating couples who have been together for an arbitrary amount of time, studying couples who self-identify as ‘committed’ has granted me access to data that reveals how smartphones have played out in a given relationship because a committed couple has made the decision to be together in the short and long term (Sternberg, 1986), and entrenched patterns of communication have had the opportunity to develop.

2.2 Sampling and Recruitment

A combination of convenience, snowball, and theoretical sampling was used to target participants. Initially, convenience sampling was used to locate couples in my immediate network of contacts that are in a self-identified committed romantic relationship. These participants were first contacted via a standard recruitment e-mail containing the contents of my information letter. The individuals that were recruited were then asked to reach out to others they know who may be interested in participating in the study. Referral chains were a key factor in recruitment through snowball sampling. Each participant that was recruited was prompted to extend the referral chain by either providing me with points of contact to other individuals who may have potentially both

been interested and qualified to participate in the study, or, alternatively, by providing my information letter and/or contact information to those possible participants. Thereafter, during the iterative “zigzag” process between data collection and analysis (Creswell, 1998), theoretical sampling was also used as a follow-up means of participant recruitment to further explore emergent theories that were developing in the analysis process (e.g. the intersection of education level and smartphone use patterns). Since a middle-range theory approach is premised on entering into a research question with little, if any, grand theoretical frameworks, the aim of theoretical sampling is to sample purposefully with the goal of developing an emergent theory (Charmaz, 1983). Therefore, although I used Sternberg’s Triangular Theory of Love (1986) to guide my methodological sampling choices, after initial rounds of data collection, the thematic categories that emerged from the analytical process, and subsequent rounds of theoretical sampling were used to lay the foundation of an updated theoretical framework.

2.3 Participants

In total, I sought to interview fifty individuals, belonging to a total of twenty-five couples; however, by the end of the data collection phase, I had the chance to speak to fifty-six individuals, comprising a total of twenty-eight couples. The size of my data set seemed to serve the goals of the study well and evidence of data saturation was clear. Similar themes have been echoed from different participants, and this has given me a sense of confidence that I have accurately captured the perspectives of those I am studying.

To qualify to participate in the study, participants needed to be smartphone users, and needed to self-identify their romantic relationship as ‘committed’ (Sternberg, 1986). Each participant was interviewed individually, producing data that were organized according to a coding structure that allowed for each participant’s interview material to be matched with the

material of their significant other. Since this was the intention from the outset, I took several measures to ensure that ethical issues of anonymity were addressed, especially in dealing with potentially sensitive material. These ethical safeguards will be addressed later; however, it is valuable to note that the participants' awareness of their significant others' participation in the study had interesting implications. Many participants spent time during their individual interviews contemplating, reflecting, even predicting what they thought their partner had/would say during their own individual interview. This represented a thematic categorization of the data that was not at all expected, but nonetheless valuable in addressing my research questions. I will explore this issue further in the data analysis chapter; however, it is necessary to acknowledge that the use of both members of couples, and the participant knowledge of both members participating, did emerge as an impactful methodological choice.

Since most participants were recruited through convenience and snowball sampling, the applicability of the findings to the general population is limited. However, my approach did lead to a more homogenous sample, one that is comparable to the segment of the population whose demographics are similar to the participants in the study. For example, education levels of my participants are not very diverse, since the vast majority of them had at least an undergraduate education or higher. Therefore, the data collected and the resulting analyses reflect experiences of people that are more revealing for particular demographic groups. Most of this demographic information was derived from a pre-interview email survey, an instrument to be reviewed.

As previously mentioned, convenience and snowball sampling as a methodological choice did lead to some noteworthy trends in the participant pool. For instance, the methodological decision was made early on in the planning stages of the project to focus the study on heterosexual couples, rather than same-sex couples. As a result, one feature to note of the data is that half of the participants are men, and half women – an outcome of which implications will be

later explored. I feel that it is important to take a moment to clarify why this methodological choice to recruit only heterosexual couples was made, particularly in the context of larger ethical considerations related to research inclusivity, (non) discrimination, and representation. In fact, an entire substantive area of academic literature is devoted towards clarifying the “challenges and opportunities for research on same-sex relationships” (Umberson, Thomeer, Kroeger, Lodge, Xu: 2015: 96). Just as Umberson et al. (2015) highlight, there are many barriers that researchers must be cognizant of when attempting to do research on same-sex couples, and by far, the greatest emphasis of their exploration of those barriers is the fact that same-sex couples should not be indiscriminately treated the same as heterosexual couples, by researchers. One major barrier they (Umberson et al., 2015) discuss is access. “The small number of people in same-sex relationships [makes] it difficult to recruit substantial numbers of respondents” (Umberson et al., 2015: 100), and knowing that my research design relied on convenience and snowball sampling techniques, I was acutely aware that my personal access to smartphone users in committed same-sex relationships was virtually non-existent. Thus, rather than attempting to include a very limited number of same-sex couples, or perhaps none at all (should the few that I would have tried to recruit declined to participate in the study), I opted to solidly represent heterosexual couples, rather than risking a misrepresentation of smartphone experiences in same-sex relationships. Furthermore, “social scientists have identified gender as a driving predictor of relationship experiences” (Umberson, Chen, House, Hopkins, and Slaten, 1996), and so much of the earlier substantive literature on technology further emphasizes similar gendered differences in smartphone use. Going into the study with the existing knowledge that gender is such an important factor, further compelled me to focus my research on heterosexual relationships. Finally, “because of past discrimination, people in same-sex relationships may not trust researchers,” and beyond that, “recruiting both partners in same-sex couples is even more

challenging” (Umberson et al., 2015). As well, it must be noted that, in our modern world of more fluid gender categories, the line separating heterosexual versus same-sex couples is not as defined as it once was, and, in fact, for a research project to truly attempt to be representative of all types of couples “studies need to include questions about multiple aspects of sexuality in order to capture a fuller range of diversity” including accounting for bisexual, transgender, and even other types of relationships. (Umberson et al., 2015). As a result of these primary factors, my participant sample pool is exclusively comprised of heterosexual couples.

Another feature that emerged in my data set was the concentration of the majority of participants (73%) under the age of 39. This is important to note because this demographic group has a unique relationship with smartphone technology. As was discussed in the literature review, a 2013 Statistics Canada report revealed that 60% of households where all members are under the age of 35 reported using a cell phone exclusively, with no landline connection in their homes (Statistics Canada, 2013). This previous research, among so many other examples of data across the literature, show the added reliance that this demographic group has on mobile technology, and as a byproduct of convenience sampling techniques, 73% (41 out of 56) of my participants fit within this same demographic group.

Most participants in the study are Canadian-born, and as a result of practical limitations, all currently reside in cities across Southern Ontario, the vast majority living in the Greater Toronto Area (GTA). These and other demographic details of the participants, such as education level, cultural background, length of current relationship, and background information of their smartphone technology use are provided in Appendix F. Table 2 (below) summarizes the most pertinent demographic details of my participant pool. This demographic information was entirely derived from the pre-interview email survey. One interesting outcome to highlight is, when asked to quantify how often they make use of their smartphones throughout an average day, the

majority of participants (71%) reported using their phones between 40-70 times. There is almost nothing else people use so regularly.

Survey Question	Demographic Features	n (N = 56)
Sex	Men	23
	Women	23
Age	18-29	21
	30-39	20
	40-49	8
	50-59	7
Highest Education Level	High School	4
	College Diploma/Trade Certification	6
	Bachelor's	19
	Masters/LLB	21
Cultural Background	PhD/MD	6
	South Asian (Pakistani, Indian, etc.)	21
	European (Russian, Danish, Italian, French, etc.)	10
	African-American	9
	Asian (Chinese, Japanese, Vietnamese, etc.)	9
Frequency of Smartphone Use in a Day	Canadian	7
	<5 Times	1
	6-10 Times	1
	11-20 Times	0
	21-30 Times	2
	31-40 Times	0
	41-50 Times	10
	51-60 Times	9
	61-70 Times	27
71-80 Times	3	
80+	3	

Table 2: Most Pertinent Participant Demographics

2.4 Instruments

Several instruments were used to target and collect participant data while maintaining ethical standards of practice. All instruments of the study were designed in compliance with the University of Waterloo's Office of Research Ethics (File #: 21036). The first point of contact in the recruitment of potential participants was an information letter. In addition to providing technical details about myself, the letter provided specific information about the goals of the

study, the parameters of participant involvement, and the ethical considerations pertaining to their involvement (see Appendix A to review the information letter). In total, I distributed 82 information letters, leading to the total number of 56 participants.

Those interested in participating in the study were then provided with a consent form (Appendix B) and a pre-interview email survey. Initially, the questions posed in the survey were part of my semi-structured interview guide. To streamline the process and build rapport with my participants by adjusting the interview question to the responses they provided in the survey, participants were first asked to fill-out the email survey (see Appendix C to review the pre-interview email survey). Most (48) of the study participants completed the survey ahead of time, a few (8) of the participants, however, ended up completing the survey in person right before their individual interview took place.

The email survey aided in the data collection process by giving participants a sense of the issues I would be focusing on during the interviews. Those participants who did complete the survey ahead of time seemed to be more prepared for the topics I dealt with during the interview. I found their responses to be more thoughtful and complete. Furthermore, it seemed that they were also more likely to present questions/thoughts of their own during the interview, which led me to believe that the email survey had sparked interest in the topic and had given the participants time to consider the role of mobile communication in their lives. While the 48 participants who completed the email survey ahead of time had individual interviews that averaged around 52 minutes, the 8 participants who completed the survey in person had individual interviews that averaged around 40 minutes. This difference suggests that the use of a survey prior to interviews is methodologically preferable.

An important and related realization I have made is that we, as researchers, often expect that the study we have been developing and thinking about for months, and in some cases years,

will be as thoughtfully considered by our participants during their interviews. In reality however, it is during the interviews themselves when most participants are really giving the issues at hand any direct, focused attention. Preemptively preparing participants for interview topics may be a valuable methodological step, especially when dealing with complex and/or sensitive social issues. This is a reason many researchers opt for follow-up interviews, to give participants the opportunity to reflect on the topics discussed and to derive more nuanced perspectives. When time and financial constraints are a reality, however, a pre-interview email survey for example, can be a viable alternative.

Upon completion of the survey, the in-person, interviews were scheduled. As Hampton (2017) emphasizes, “the traditional, in-person interview continues to provide an important tool in the study of digital media. This approach is particularly important for sensitive topics, in which the researcher needs to establish trust” (Hampton, 2017: 171). I expected interviews to last anywhere between 30-90 minutes. As noted, there were some significant differences in length of interviews between those participants who had done the email survey ahead of time versus those who did not. On average, however, most interviews were just under an hour in duration.

In choosing semi-structured, in-depth interviews as the primary data collection tool, the goal was to ask questions and listen to participant perspectives while allowing for the interview experience to be adapted to each respondent’s individual experiences (Atkinson and Hammersely, 1994). Individual interviews allow for the development of detailed descriptions with an emphasis on processes that people encounter, interpret, and then communicate from their own subjective perspectives (Weiss, 1994). Interviews, as a methodological choice, fit well with the middle-range theory approach as it allows for the gathering of in-depth qualitative data that can conceptually lead towards developing a new theoretical model (Creswell, 1998). Using in-depth interviews also allowed for the research outcomes not only to integrate multiple perspectives

from multiple participants, but also to bridge intersubjectivities in a way that has allowed me, and will hopefully enable my readers, to grasp the situation from an insider perspective, as the participants might (Weiss, 1994).

In addition, given that the research focus is on committed romantic relationships, much of the data gathered from participants may be interpreted as sensitive and personal in nature. Individual interviews allowed for a rapport, based on trust and confidentiality, to build between the individual participants and myself, as the investigator. Other methodological choices, such as focus groups, or more quantitative measures like statistical surveys, would likely not allow for the same level of access to in-depth data, and may in fact limit the openness with which participants approach their contributions to the research.

I chose to make use of a semi-structured interview guide, rather than an unstructured or structured interview because of the flexibility it offers. While an unstructured interview could have been a viable methodological choice, the lack of qualitative research done in this area previously made it difficult to know which earlier themes and issues from the literature were the most pertinent to focus on. Furthermore, I opted for a semi-structured interview rather than a structured interview because of the theoretical orientation that I have chosen to work from. Structured interviews are better suited for confirming existing theories, for example, rather than developing a new baseline model, as is my goal.

The semi-structured interview guide is broadly separated into two sections. First, I was interested in understanding the general smartphone use behaviors that participants report. Therefore, the first section of the interview guide is targeted at questions related to phone feature use, meanings that participants attach to smartphone technology, and interpretations that participants make of the role of technology in their lives generally. The second section of the interview guide is alternatively focused on bridging those technological considerations with an

exploration of the role that mobile communication plays in their romantic relationships. Specifically, I aimed my questions at understanding how mobile communication is navigated by different people/couples, what meanings people associate with their own and their significant other's mobile communication behavior, and ultimately what patterns emerge as consistent versus inconsistent when two people in the same relationship are individually asked the same questions related to their smartphone use. It is imperative for me to take a moment to note that my semi-structured interview guide consisted of well over 50 different interview questions and related probes. By traditional standards of qualitative research, this breadth of combined questions and probes is unusually high. In reality, however, in talking with participants the discussions were much less systematic than my interview guide suggests. In fact, though I had such a wide variety of topics and questions prepared, discussions with each participant would take on their own unique trajectories, and oftentimes, many of my specific inquiries would be explored and answered simultaneously during an interview. For example, in many cases, when I asked participants about how often they communicate with their partner in an average day, the seventh question in the second half of my interview guide, they often would also answer the eighth, ninth, and tenth questions at the same time. I feel it is important to acknowledge this organization of my data collection instrument for any future iterations of this or other similar research. Not all the questions from the guide are individually asked of every participant, nor are they always explored in the order listed, but developing a thorough list of questions proved an effective way of organizing my thoughts and goals with regard to the interviews.

The final instrument I used as part of my study was the feedback letter (Appendix E) that I provided to participants upon the completion of their interviews. The goal with this letter was to express gratitude to the participants, as well as prompt participants to reach out to me after their interview, if they had any additional comments, questions, or concerns. None of the participants I

interviewed formally reached out after participating in the study, however, my personal relationship with some of them did inevitably lead to informal follow-up inquiries about the findings of my study.

2.5 Data Collection and Analysis Procedures

There are six distinct steps involved in my approach to data collection and analysis: 1) conducting interviews; 2) de-identifying and transcribing data; 3) data management and storage; 4) coding and recoding; 5) memoing and 6) theme analysis.

2.5.1 Conducting Interviews

The interviews with recruited participants developed in multiple phases. The first phase of interviews was done using the semi-structured interview guide that I had developed. As analysis began after this initial round of interviews, several important themes emerged that prompted me to reach out to both new and existing participants for more data. A second round of interviews was done that were more specifically concerned with asking questions related to emerging themes in the data. These particular analytical points will be discussed later, however, methodologically, it is important to note that this project benefited greatly from a multi-phase interview process.

Fifty-five of the Fifty-six interviews happened face-to-face, at a location that was mutually comfortable for both the participants and myself as the researcher. One of the interviews, however, was done by phone, since the participant was out of the province during the time of the scheduled interview. All interviews were tape recorded, and I conducted most of the individual couple interviews one after another – interviewing both members of the couple on the same day.

There were just three cases out of the 56 participants when these successive interviews were not possible, and each couple member had to be interviewed on different days.

There were a number of data gathering techniques, specifically related to interviewing, that I drew on from the literature. Weiss (1994) discusses several techniques that can be used during individual interviews to improve the results. I used six of these techniques to help me collect the most meaningful and in-depth data as possible from my participants. The first interview technique is ‘extending’ (Weiss, 1994). This relates to probing further into descriptions or examples that a participant provides. This tool worked particularly well, for instance, when I asked participants to identify a time that they thought the use of technology had positively impacted their relationship (Appendix D). Extending their examples further by probing for details helped me to encourage the production of data that constituted in-depth descriptions and accounts of personal experiences.

Another interviewing technique I relied on was the idea of ‘filling in detail’ (Weiss, 1994). As in everyday conversation, some research participants I encountered really struggled to provide the level of depth that I was interested in accessing about their personal experiences with the technology. As Weiss (1994) suggests, I used this technique to encourage my participants to walk me through the details of their personal experiences. For example, question seven in my interview guide asks participants about how often they communicate with their partner in an average day. For several participants who seemed unsure about how to answer this question, I prompted them to walk me through a typical day, step-by-step, in which they communicate with their significant other via smartphone technology.

A third interview technique I used was the process of ‘identifying actors’ (Weiss, 1994). Weiss (1994) emphasizes the importance of contextualizing data so that the examples and descriptions that participants provide are not detached from the real-world processes that

surround social interactions. For instance, in the section of my interview guide where I ask general smartphone use questions, one major area of interest is related to who participants communicate most with using their devices. This was an occasion where prompting participants to identify the actors (Weiss, 1994) involved in their technologically-mediated interactions helped to develop a richer data set. Furthermore, since my focus with this study is on romantic relationships, as participants identified other actors with whom they communicate via smartphone technology, it also provided a point of comparison and context in terms of general smartphone use behavior versus relationship-specific smartphone use behavior.

Fourth, Weiss (1994) talks about probing for sub-descriptions about the social construction of meaning from participants with the technique of inquiring about ‘others the respondent consulted.’ Although he does emphasize that this particular technique is most helpful when conducting studies about how respondents deal with problems, it became valuable during my data collection process when dealing with questions, for example, about how people choose their smartphones. One of the probes that helped me to elicit more detailed data from participants for this question was in asking whether they had consulted others (Weiss 1994) when making the choice. Throughout the study, the importance of socially constructed meanings related to smartphone technology behaviors and use became increasingly evident, and this particular technique from Weiss (1994) helped me greatly in accessing this information.

A fifth interview technique I used was probing participants for ‘inner events’ (Weiss, 1994). This includes perceptions, cognitions, how the respondent felt, respondent values, goals, fears, etc. These data are sometimes not readily offered by participants, as they frequently constitutes not only sensitive/private information, but also complex ideas that are difficult to verbalize. In order to help participants overcome these challenges, I probed for insight into each interviewee’s inner perspective. For example, in dealing with a question about who usually

initiates communication when they are not physically together with their significant other, major emphasis was placed on how each participant **felt** about their experience and account. By framing the interviews to focus on reporting both external experiences and internal interpretations of events (Weiss, 1994), the data collected were not only greater in detail, but also better served my research interests.

The sixth and final interview technique that I employed was to ‘make indications explicit’ (Weiss, 1994). Weiss (1994) notes that since interviews naturally mimic social conversations, respondents often use body language to supplement their responses through gestures, grimaces, and expressions among others. In encountering evidence of this, I encouraged participants to verbalize the idea and/or feeling they were attempting to capture in their body language, especially facial expressions. This technique not only contributed to a fuller data set, but also compelled participants to provide as much detail as they could in subsequent parts of the interview.

2.5.2 De-Identifying and Transcribing Data

After the interview phase of my research process, the second procedural step was to de-identify and transcribe data. The ethical considerations surrounding the participation of people in my study were paramount as I made decisions regarding the de-identification and transcription of the collected data. I made a priority of transcribing interviews relatively quickly after the completion of each one. This was, in part, a practical decision, as I needed to transfer files off my audio recorder onto my computer so that it would have available memory for upcoming interviews; and was also, in part, because it served the goals of my study well to engage in the iterative ‘zizag’ approach between data collection and analysis (Creswell, 1998). Familiarizing myself with the data after speaking to each participant was helpful in preparing for upcoming

interviews, and was also effective in allowing me to navigate through the semi-structured interview guide more naturally with each passing interview. Furthermore, by exploring the data, even at the most basic level through the de-identifying and transcription process after each interview, I was also able to narrow down the thematic areas that needed to be examined as I moved through the research by applying an initial set of analytical codes and memos.

In terms of de-identifying the data during transcription, there were standard data that were removed from the set for all participants involved. This included any identifying elements like names of participants or any person they talked about; any mention of specific locations like workplaces, restaurants, schools, etc.; and any other anecdotes, features, or statements that I believe could be used to directly identify any of my participants in the final account of my study. To specifically eliminate participant names from the data set, pseudonyms were assigned to each individual respondent. The pseudonyms applied were selected randomly from name listings on the internet. The only conscious choice that was made in assigning pseudonyms to individual participants was in terms of ethnic origin. To represent the data collected as truthfully and accurately as possible, pseudonyms that reflect the cultural/ethnic background for each respective respondent were used. Overall, throughout the de-identifying and transcription process, my priorities in order of importance included: first, protecting the privacy and anonymity of my participants, and second, pursuing the goals of my research project.

2.5.3 Managing and Storing Data

My next procedural step was related to the management and storage of the data. High priority has been placed on the appropriate management and storage methods of data since the information collected from participants may be considered highly sensitive and private in nature. Interview data in the form of audio recordings, transcripts, and coding and analysis documents

have been stored on a password-protected computer. These materials have been stored in a safe and locked office location to which only I, as the principle investigator, have access. Upon completion of the study, all original interview material will be retained for a period of five years, reflecting standard research protocol, after which time they will be permanently destroyed to ensure the future anonymity of my study participants.

2.5.4 Coding and Recoding

The data from each interview were treated independently when beginning the first coding cycle, and in later coding cycles individual data for each participant couple was matched to find relevant patterns. As Saldana (2009) emphasizes, coding is a progressive process that must be done in multiple phases, especially when dealing with a data set of any depth and/or volume. Saldana (2009) suggests beginning the coding process with ‘initial codes.’ During the interview process with each participant, while I tried to remain attentive and focused on the responses of each person, I did make brief notes during and immediately after interview. These notes helped me to develop a number of initial codes to guide my analysis. The initial codes fell into a number of different, very broad categories.

Attribute codes were used to organize responses from participants that provided information about their demographic characteristics (Saldana, 2009) and to supplement the responses they gave during the pre-interview email survey. I later used the set of attribute codes developed during the initial coding phase to apply simultaneous codes (Saldana, 2009) to data in order to look for patterns across demographic categories. For example, as will be further discussed, demographic codes for participant education levels were related to notable trends in responses to other core interview questions.

Some structural coding (Saldana, 2009) techniques were applied to the data set, particularly when dealing with the more standardized questions in my interview guide. For example, all participants were asked to address both positive and negative impacts of smartphone technology on their personal relationships. As a result of this question being so structurally consistent in the interview question set, structural codes derived from key words in the questions were used in the data analysis process like “benefits of smartphones” and “disadvantages of smartphones.” Where it did not make sense to use structural codes, other coding categories were used, including descriptive codes (Saldana, 2009) to capture data as they arose from each participant. Codes related to participant emotions, beliefs, and actions similarly helped group data that could respectively be categorized according to emotions codes, values codes, and process codes (Saldana, 2009).

While most of the codes that were applied to the data set fell into somewhat expected subjective categories like emotions, beliefs, values, etc., some codes spoke directly to a theoretical connection with the data. For example, Saldana (2009) discusses, at length, the idea of dramaturgical coding as a way of conceiving of social life as a performance (Goffman, 1997). The premise underlying dramaturgical coding is to apply the metaphor of a theater performance to the social interactions people engage in. This theoretical connection will be discussed later at length. In terms of the methodological implications for my study, however, dramaturgical coding was used to address a number of thematic categories in the data including the theme of participants “Constructing a front” in managing the appearance of their technology use in their relationships with their partners. Saldana (2009) emphasizes the use of codes related to participant objectives and motives, as well as the emotions and subtexts that underlie them, among so many others, in an effort to highlight the dramaturgical concept of individually-motivated social performances. While not all types of dramaturgical coding were relevant to my

data set, they were a valuable consideration, as they allowed me to draw direct connections to the theoretical literature.

One particular approach to coding yielded interesting results, and can, at least, in part be attributed to the methodological design of the study. Saldana (2009) emphasizes the value of a repetitive process of coding and recoding. The goal with this approach is to build analytical depth by finding “linking” (Saldana, 2009) ideas among code and sub-code categories. Saldana comments that, “all coding is a judgment call since we bring our subjectivities, our personalities, our predispositions, and our quirks to the process” (Saldana, 2009: 24). Because of the subjective nature of the coding process, returning to evaluate and reevaluate conceptual categories in the data, especially while moving through the analytical process, represents the most thorough approach to systematically analyzing qualitative information. Taking this approach in my own research helped me to gain a better depth of understanding about the data my participants provided. While my initial codes gave me a wide range of almost 60 unique code categories into which data could be sorted, by engaging in subsequent rounds of coding, I was able to focus my analysis on a much more manageable set of highly relevant code categories. By the time my subsequent rounds of coding and analysis was complete, I was working with closer to 20-25 core thematic categories and sub-categories.

The coding categories used during initial rounds of coding were wide in variety. Later rounds of coding, however, were much more concentrated. Specifically, I made use of several second cycle coding methods suggested by Saldana (2009). First, and perhaps most impactful on my data set, pattern coding was used to develop ‘meta-codes’ (Saldana, 2009), or category labels that unified similarly coded data from the first round of coding. For example, in my participants’ interview data, some relevant first round codes that I applied to my data set included: “confusing messages,” “unclear expectations,” and “miscommunications.” Later, these first round codes that

all applied to problems that couples confront in sending text-based messages to their partners, seemed to fit in the second cycle pattern code of “nonfunctional communication.” The goal was to begin organizing the data to develop analytical categories that directly addressed my research questions.

Focused coding (Saldana, 2009) was also used during my later cycles of coding to help sharpen my analysis. Focused coding refers to the grouping of thematically or conceptually similar codes. For example, in my initial coding rounds, some similar categories that emerged included: “checking-up on my partner,” “doing regular phone checks,” “discreet phone checks,” and “open phone checks.” All of these initial codes related to participant responses that reported on their behaviors surrounding the surveillance of their partners’ smartphone. As a result, during later coding rounds, these initial codes were grouped together into the focused coding category of “surveillance.” A further technique that helped me to organize and analyze my initially coded data was linking sub-codes that could be seen as derivatives of the same core code. For instance, in the previously discussed example, one of the core codes that eventually resulted from my multiple coding rounds was “surveillance,” and it proved helpful to include in this larger code category, the sub-codes of “open surveillance” vs. “closed surveillance.” Having these sub-codes helped me not only to logically organize the data, but it also created a conceptual contrast between two types of participant behaviors related to the monitoring of their partner’s smartphones. These types of patterns in the data only become recognizable for their analytical value through multiple coding rounds, and this is the main reason why I so thoroughly worked through my data with several rounds of coding and recoding.

In terms of the procedural steps I followed to complete my coding processes, while I initially had intended to code my data using NVivo Software, my limited data set proved to be better explored through more traditional approaches. Upon the completion and transcription of

interview data, I kept a separate copy to retain the original data set, and began working with a secondary copy. I managed most of my interview data using the Microsoft Office Suite of programs, principally, Microsoft Word and Excel. Each interview was managed in its own document where I setup a physically large margin to keep memo and coding notes. Each interview was reviewed multiple times to account for a wide array of initial codes, and to ensure no pertinent data was overlooked. Upon completion of this initial round of coding, I then organized codes into what Saldana (2009) calls a ‘codebook’ – a systematically organized working list of all the codes that had been applied to my data. I managed my codebook in Microsoft Excel where I could also keep track of the number of times each code appeared, and I could link coded data to particular participant quotes. Managing my codes in such a systematic way made it easy to focus my initial set of general codes into my final set of specific codes.

2.5.5 Memoing

The intensive data analysis approach that Saldana (2009) suggests of coding and recoding is not solely premised on doing multiple rounds of coding, but it also involves the process of memoing. Saldana advises researchers: “whenever **anything** related to and significant about the coding or analysis of the data comes to mind, stop whatever you’re doing and write a memo about it immediately” (2009: 40). In heeding this advice, as I worked through my multiple rounds of coding, I also engaged in the process of writing analytical memos. To me, these memos served to record, manage, and track my lived experience of the research. For example, while simultaneously working through data collection and analysis, I wrote analytical memos, especially during the initial coding of my first set of interviews. These memos helped me to keep track of how effective certain questions in my interview guide were in yielding the data needed to address my research questions. Eventually, over the course of multiple groups of interviews and

dozens of analytical memos, I adjusted the order of questions in my interview guide, and added follow-up clarification questions to further probe participants when dealing with challenging topics. For instance, my initial interview guide asked participants a wide array of questions related specifically to technology-mediated communication between partners like, “how much of your overall communication with your partner do you think occurs through the use of technology?” However, one idea I had not considered when formulating the interview guide, but became apparent to me as a relevant theme after my initial rounds of both coding and memoing, was how couples mediate their partner’s use of their devices. Realizing that people affect their significant other’s frequency, methods, and behaviors surrounding smartphone use prompted the addition of new follow-up questions in subsequent interviews. As a result of the systematic treatment of data that comes from engaging in a continual process of coding, memoing, and recoding, I was able to recognize this theme early on in the analysis process, and was still able to address it in later participant interviews.

Memoing proved to be an invaluable tool in the entire research process, not only because of its ability to help me improve my interview guide, but also because it helped me to begin bridging conceptual categories in my coding cycles. Memoing served as the ideal intermediary process in completing each step of the research process. Memos were a part of the formulation of my literature review and research instruments. I used them in my data collection procedures. They appear throughout my data de-identification, management, and analysis phases, and memos even served me well in keeping track of the valuable insights I gained through research meetings along the way. Memoing became comparable to having a conversation with myself throughout this research project, and it afforded me a much more self-aware approach to doing research.

2.5.6 Theme Analysis

To develop the analysis of my data from a group of codes and memos to a set of meaningful themes I used a number of strategies. These strategies have helped me to organize my analysis in such a way that I can reasonably, coherently, and clearly present my findings. First and foremost, though every new research project brings with it a fundamental questioning of things we often take for granted, one of my greatest assets in thematically organizing my data analysis was simply logic. While it may produce a somewhat tame initial analysis, the first two sections of my Discussion chapter are logically organized according to the thematic concepts that ground my semi-structured interview guide. These introductory sections are meant to summarize first, individual experiences with mobile communication more generally, and second, the nature of committed relationships more generally. I think it is important, especially with the relative novelty of a substantive research topic that merges these two wider areas of study, to begin the discussion of my findings with a baseline summary of how people orient themselves to their smartphones on one hand, and how they do so within their committed relationships, on the other. This is the approach I used during the interview phase of the research, and as a result of its efficacy, is the approach I continued to employ the discussion of findings. To streamline the discussion, however, these two initial sections have been summarized, highlighting only the most important findings. They serve as a means of introducing my discussion of the data that is more centrally relevant to my research questions.

The subsequent section of my Discussion chapter deals specifically with the intersection of the two subfields I have chosen to study, and it was the one that benefitted greatly from more specific theme-developing strategies. One focusing strategy (Saldana, 2009) that really helped me to develop my final theme set was Saldana's (2009) suggestion of a 'top ten' list. This technique involves the parsing out of a limited number of key quotes, ideas, or passages from the wider data

set that seem particularly relevant and highly representative of the goals of my study. Though it was difficult to narrow the countless quotes collected from participants down to a group of ten, it was an important initial step in determining the ordering, hierarchy, and applicability of information to be included in the final discussion.

One particularly helpful strategy that Saldana (2009) categorizes as a technique in ‘Rising Above the Data,’ is the ‘Touch Test.’ The Touch Test refers to a conceptual process of moving from the particular elements found in the data for each of my participants, to more general, abstract levels of theoretical thought. An example of how this worked in the context of my study, was in moving from my participants’ discussion of physically accessing or checking their partner’s smartphone, to the more general, abstract theme of “Privacy and Surveillance.” According to Saldana (2009), themes developed for the purpose of exploring qualitative data should be conceptual in nature; you should not be able to physically ‘touch’ or interact with it in a tangible sense, they should exist at a higher level of abstraction.

Throughout the analysis phase of the research, in addition to coding and recoding the data in several cycles, other theme-developing strategies that I relied on included ordering and reordering information while establishing, evaluating and reevaluating the headings and subheadings under which the data would eventually be organized (Saldana, 2009). A regular experience I encountered in the data analysis phase was creating multiple copies of singular pieces of datum. With each new, emergent interview, observation, code, memo, etc., there was always the possibility that every previously analyzed set of data could be reanalyzed, reorganized, and reframed. Engaging with the data and remaining open to the narrative emerging from it helped me to organize my writing, as well as the theoretical and methodological frames being used to anchor the research story for both my audience and myself (Saldana, 2009).

Another important strategy I relied on, both in the thematic analysis of my data, as well as in the later discussion of it, was preserving as much of the original evidence as was pertinent to my research questions. As trends change across the discipline generally, and within specific substantive areas of research, there are regular debates regarding the most appropriate ways to report on data. One perspective believes the researcher has a degree of authority, a direct byproduct of which should be the practice of providing summarized interpretations of participant data. This point of view is rooted in the researcher's "claim to authority, to scientific legitimacy, which in [fields like] anthropology, and to a lesser extent in sociology, usually takes the form of an experiential claim to having been there" (Dawson, 1996: 18). The alternative perspective, and the one that I personally subscribe to, emphasizes that the process of summarizing the data reduces the complexity of the participants' experiences (Dawson, 1996: 18). It involves presenting "constructions of constructions of constructions [which become] little more than projects, or at least blurrings, of the participant's point of view, [their] subjectivity" (Crapazano, 1986: 74). As a result, my upcoming analytical discussion includes block quotes directly extracted from participant interviews, with my analysis and related discussion operating as an analytical frame, rather than as a direct interpretive lens. My decision to frame my data in this way within my discussion is premised on the belief that "the data of human lived experiences should have primacy over our concepts and it should be used to reshape and otherwise inform our conceptual developments" (Prus, 1997:246)

As Saldana observes, "you can't see the frame when you're in the picture" (2009: 185), and after a long journey through the research process, I cannot emphasize enough how invaluable the strategy of seeking assistance from others (Saldana, 2009) has been throughout my study. Having regular exchanges about research ideas and insights with my project supervisor, with colleagues, and with people in general, truly helped me in attempting to maintain some level of

analytical distance from my data. Even just in sharing my research topic and study with others, I was able, on multiple occasions, to illuminate research insights, sometimes in the most unexpected ways – while having coffee with a friend and just chatting about modern technology in our own lives or receiving an article from a colleague related to a new technological development – these very mundane, personal, everyday experiences often prompted me to reconsider my perspective on the data I was collecting and analyzing.

2.6 Techniques for Data Validation

Many steps throughout the data collection and analysis phases of this project were executed specifically to develop the most valid representation of my participants' lived experiences. First, as a researcher, my main goal has been to develop a narrative from the perspective of my participants that accurately depicts their own accounts of their experiences. As a result, my analysis relies first, on presenting participants' descriptive details through the use of direct quotes from their individual interviews, and second, on linking their direct data to both the existing theoretical and substantive literature available.

Second, all participants were provided with the chance to provide further comments, pose added questions, or to express any concerns they had with the data they provided during their interviews. The feedback letter, as an essential instrument of the study, was the main mechanism through which this opportunity was emphasized to each study participant. Since none of my participants voiced any concerns about the representation of their experiences, it appears they felt that they were able to articulate their perspectives adequately during their interviews.

Third, in considering the complete interview data set of each of the participants in their own right, the evidence of saturation among participant responses to many lines of inquiry

suggests that the data accurately reflect the larger social realities that inform the patterns I uncovered.

Fourth, throughout the research cycle, I remained open to any and all data that arose. Though it is impossible to enter into a study without some conception of what one thinks and/or hopes will result, I truly aimed to include all pertinent data whether they aligned with my personal beliefs/ideas, or not.

Finally, perhaps the most impactful technique I have employed to ensure data validity, is acknowledging my role as the researcher. Keeping in mind my own beliefs, perspectives, background, and experiences, I have attempted, at every stage of the research cycle, to reduce the effect of researcher bias, in particular by declaring, at various points in this discussion, my personal perspective on the issues.

2.7 Ethical Considerations

Any research project involving the participation of people must adhere to the highest ethical standards, not just to protect the integrity of the specific project itself, but also the integrity of all research-based disciplines that rely on voluntary study participants. In conducting my research, the ethical implications of my project have been of utmost importance to me.

2.7.1. Participant Privacy and Anonymity

To protect the privacy and anonymity of my study participants, for example, all identifying elements of participant interviews were removed from the final data set to reduce the possibility that any one respondent could potentially be distinguished. This identifying information includes names of participants or people they discussed in their interviews, any specific data related to recognizable geographical locations like names of workplaces, restaurants,

schools, etc., and any other elements or statements that I thought might be used to directly link my data to any of my study's participants.

2.8 Methodological Limitations

While the general limitations for the study overall, as well as potential areas for further study will be discussed in my conclusion, the specific perimeters imposed by my particular methodological choices must also be acknowledged. Research, especially that which is qualitative in nature, is regularly impeded by practical constraints such as time, financial resources, and availability and willingness of viable participants, among many others. As a result, researchers must often make difficult decisions to best balance the goals of the study with these practical limitations. My project is no exception.

First and foremost, there are multiple methodological limitations associated with my combined convenience, snowball and theoretical sampling methods. First, my sampling led to a participant pool that was comprised partially of people I had already met, and in some cases knew very well, and partially of people I had never met. As was often the case, I had previous interactions with one member of the participant couple, and was meeting and interacting with their significant other for the first time. Further to this point, there were, as well, cases in which I knew, and/or knew well both members of some couples, and in other cases, there were couples where I had met both members, but did not know them as well. Though I made every effort to engage with each participant according to the same research protocol, my personal history and previous interactions with some of the participants may have influenced some of the results. The added comfort level that participants I knew, and/or knew well experienced, may have inadvertently led to more complete data sets than those that I collected from participants that I had less previous interaction with or that I was meeting for the first time. Similarly, from a more

critical perspective, my existing relationships with some participants may have also affected the validity of the data in terms of desirability of responses. It could be argued that participants with whom I shared an established history had more of a vested interest in portraying themselves positively in their responses to my interview questions. They may have been unwilling to reveal some sensitive, questionable, or personal behaviors or opinions to me, because of our prior relationship. However, I would challenge skepticism surrounding the value of the data derived from such interviews, since it is truly impossible to know whether any study participant is ever providing full and honest responses, regardless of whether a previous relationship exists or not. Furthermore, in social study, a major hurdle to acquiring participant data is often the barrier of establishing trust – an exercise that researchers in many social disciplines like sociology and anthropology spend a great deal of time and energy trying to do – and in the case of my convenience sample, that essential trust had already been established as a result of my existing relationships with some participants. In the end then, there is a balance of advantages and disadvantages in employing such a sampling technique.

Another implication resulting from my convenience sampling methodology is the composition of the participant pool in terms of respondent background and demographics. Since I already knew many of the study participants, this necessarily means that the sampling pool was less diverse in nature than it would have been had other sampling techniques been employed. For example, as has already been briefly discussed, one particular demographic feature that was more-or-less homogenous across my sample was education level. Forty-six out of the total fifty-six study participants had a Bachelor's degree or higher, and this is certainly not statistically representative of the general population. While in some ways, this may be considered a methodological limitation since my data will speak not just to how committed couples navigate smartphone technology in their relationships, but more specifically to how educated couples

engage in this process, the more homogenous sample may be considered a methodological advantage in addressing my research questions within the context of this specific population.

Although the pre-interview email survey that was distributed to participants did not constitute my central data set, and was instead used mostly for quantitative, background and demographic data to supplement my qualitative interview data, there were some limitations that should be addressed for this particular instrument. Specifically, in future iterations of this research or similar studies, I would opt to apply more standardized response options to the survey. For example, question 11d (Appendix C) asked respondents to indicate how often they make use of their smartphone everyday. In most cases, participants responded with a numerical range like ‘40-50 times a day,’ which is the format of response I was initially seeking when designing the survey. However, in a few cases, participants were not sure how to respond or responded alternatively with answers like ‘twice an hour.’ The lack of designated response categories was confusing for some participants and resulted in a mixed format of responses that, in turn, required me to seek clarification either via email or during the in-person interviews. In the future, I would design this or other similar surveys to be more specific with standardized response categories.

In the process of designing this study, I initially sought to do both, combined couple interviews, as well as individual interviews. My inclination in making this preliminary choice was to be able to incorporate data that reflected first, the content of participant responses, and second, the interactional, intersubjective element between the two members of each couple I studied. Another reason why I initially considered doing couple interviews as well as individual interviews, and more importantly, prior to the individual interviews, was to build both rapport and trust collectively between myself and both associated participants. This seemed a viable methodological option, especially since the nature of the core questions from the semi-structured interview guide relate to relationship patterns and information that may be considered personal

and sensitive in nature. Ultimately, however, conducting not just 50+ individual interviews, but also 25+ couple interviews, was not feasible given time and financial constraints. The fact that my final data set and analysis is based solely on the individual interviews conducted with each member of every couple, is not necessarily a methodological limitation in and of itself, as it does constitute a reasonable study design; however, it may be considered a methodological limitation in terms of how best to address the research questions I am seeking to answer through this project. To consider a couple as a single data unit, and their responses and interactions cumulatively as part of that unit may have helped to better capture behavioral and interactional nuances between the members of the couple, for the purposes of my research.

As well, interviewing each participant individually, but still incorporating both members of each couple, led to some interesting insights, as was briefly discussed earlier. First, discrepancies that emerged between couple responses to the same interview probes presented questions of participant honesty, comprehension, and/or memory/recall. While there were not many cases in which there were major divergences between couple responses to the same interview questions, the cases in which differences were found may be related methodologically to the design of the interview questions, and are worth noting. An example of questions that incited responses with divergent responses include questions #8 and #10 (Appendix D) relating to how often the couple typically communicates over the course of an average day and who initiates the communication. In terms of the potential analytical value of these discrepancies, they will be discussed later in the Findings Section. However, here in terms of noting the implications of my methodological choices, a study design that sought to encompass couple interviews in addition to individual interviews may have allowed for the opportunity for many of these discrepancies in responses to be addressed. While analytically I may be able to draw connective links between these response

differences among couple members and other thematic trends in the data, the only true way to probe further into why they exist in the first place would be to ask the couple together.

A second point of interest that emerged from the methodological choice to interview both members of each couple individually arose as a direct result of the fact that each study participant was aware that their significant other was involved in the same study. As was previously discussed, most of the interviews I conducted with couples occurred successively, one-after-another. Therefore, in most cases, each person was aware that their significant other had already responded or was intended to respond to the same questions. Interestingly, in my discussion with several participants, they spent some time during their own interview sessions speculating what their partner's responses were/would be. I first noticed this trend with one particular participant, to be later referred to as Saira, who spent enough time during her own interview speculating what her partner had already said during his interview, that it occurred to me to make a memo of it in my notes. Not all participants engaged in this behavior, however, and there was an interesting relationship to both gender and education level, to be further explored in the Findings Section. Here, I simply want to make the observation that the methodological decision to interview both members of a couple one-after-another, may have been impactful on the discussions that emerged during their individual interviews.

One final note I would like to make regarding the methodological approach of my study relates to the physical act of conducting each interview. As my initial study design indicates, interviews were conducted at a time and location that was mutually comfortable for and agreed upon by both the participants as well myself. My convenience sampling method and the fact that I knew several of the participants, and in some cases knew them very well, meant 75% of the interviews were conducted in participants' own homes. Conducting research interviews in someone's home is a unique experience because the environment serves to frame many of the

topics discussed, especially since the questions focused on everyday realities and behaviors. On one hand, it might be said that this methodological decision was advantageous since it afforded my participants greater comfort in an environment while doing the interview. On the other hand, however, this decision might have been disadvantageous if a participant's everyday environment instead prevented them from opening up and divulging more personal insights into their everyday relationship experiences with smartphone technology. As well, the argument could be made that the decision to conduct each couple interview in a different environment may lead to less standardization of results. The alternative study design would likely involve requiring all participants to meet at a single location, my on-campus office for example. It is my personal opinion that to yield the breadth and volume of in-depth data we seek when engaging in qualitative work, it requires less of a hard, clinical approach, and instead demands the researcher to step out of the academic bubble and immerse themselves in the world of the participant – as they should hope to, and I have strived to, in order to capture the lived experiences of those that I have had the pleasure of including in my study.

2.9 Role of the Researcher

Before presenting my analytical findings, I think it is important to take a moment to engage reflexively with my own work in recognizing the role I have played being an individual with my own personality, history, and beliefs as the researcher of this study. First and foremost, my orientation regarding the role of technology generally must be acknowledged. Though I am not blind to the many ways modern technology has negatively impacted social life, overall, I am what could be called a 'technology advocate.' I am forever amazed and regularly marvel at what seems like a never-ending process of change and progress in the world of technology. If the

devices we use do not already improve our lives, it is my hope that my research will be part of a body of academic work that will help people better navigate the use of technology, so that it does.

In saying this, I mean to intentionally make note of myself as an instrument in the data collection process (Denzin and Lincoln, 2003). The data that has been produced through this study, and the resultant analysis, have all been filtered through myself as a data collection instrument (Denzin and Lincoln, 2003). While I can say with utmost confidence that every effort was made to remove personal bias at each and every stage of the research process, the reality is that the main data set is based almost entirely on my interpretation of the information provided to me during the semi-structured interviews. Regular memoing and engaging in multiple cycles of coding are two distinct ways that I made a concerted effort to eliminate and check personal bias in my interpretation. Ultimately though, the review of my analysis by my study participants will be the best evaluative tool to delineate whether I have been able to accurately capture the lived experience of those that I am studying.

CHAPTER 3: DISCUSSION

When you asked me to think about how many times I use my phone in a day, I was really surprised when I tried to calculate it out. I figured, I probably check it like, on average, 10 times an hour – do the math on that, 10 times the 15 hours a day that you're awake? That's like 150 times a day. Maybe that's not every single day, but most days are like that. (Chris, 23, Partner: Laura, 22)

Fifty-six people participated in this study, and a whopping 93% of them (52), reported that they use their smartphones upwards of 40 times a day. Nearly 60% of the total sample reported using their smartphones more than 60 times a day. To some extent, we are all well aware of the growing pervasiveness of modern technology in our world, but are we really cognizant of how embedded it is into our experience of everyday life? When I initially set out to design this study, it was my impression, simply from talking to people in general about this subject, that modern technology must be impacting the way we navigate our intimate relationships. Now I can confirm that, in fact, it is. To avoid an alarmist tone however, I will clarify my claim by emphasizing that I do not believe, from the data collected thus far, that smartphones have completely revolutionized traditional patterns of communication within relationships. Alternatively, I do believe that this technology has come to frame our romantic relationships, and surely other kinds of social relationships too, in a way that is entirely unique to the medium. Therefore we need to take a fresh investigative look at the social reality, in ways that diverge from the previous research, which focused on the impacts of the internet in general, for example, on these relationships.

There are qualitative differences that make smartphones unique, relative to the technology that preceded them. According to my findings, these differences have, in turn, yielded qualitatively different outcomes in our social relationships. If we return for a moment to our earlier definition of a smartphone as a programmable phone typically including high-speed data

connection, color screen, camera, local connectivity (bluetooth and infrared), web browsing, text and multimedia messaging, e-mail, and games (Raento, Oulasvirta, and Eagle, 2009: 429), then it is clear that there are no features listed that constitute forms of technology that were not available prior to the proliferation of modern smartphones. However, the concept of **mobility** that cumulatively underscores the use of each and every single one of these features is an “emergent property” (Durkheim, 1964) of this technology. Durkheim classically delineates the notion of ‘emergence’ to refer to the idea that, in assembling separate components together in a certain way, the outcome results in features that do not exist when considering that same set of components in isolation (1964). While Durkheim (1964) may have been one of the earliest social thinkers to introduce the concept of emergence, many sociologists, contributing to a variety of subfields, have since furthered our understanding of the concept, and today, emergence has become a firmly rooted, fundamental concept across the sociological discipline. By the conclusion of this discussion, it is my hope to better make sense of this emergent property of modern smartphones and its consequences. To that end, I have organized my analysis into three segments.

First, I briefly discuss “Smartphones & Communication From the Individual’s Perspective.” This section summarizes the data gathered from the initial set of interview questions in my semi-structured interview guide, addressing how people define mobile communication generally and identifying patterns of behavior and meaning that people have developed with regard to the technology. Second, I focus on “Developing a General Understanding of Committed Relationships,” specifically through a summary of the patterns of interaction that characterize romantic relationships in general. These two sections are predicated on fundamentally identifying the basic thematic trends that are relevant to the discussion of individuals’ experiences with both smartphone technologies and committed relationships, rather than on exploring the related evidence through direct quotes. Thereafter, however, the “Mobile

Communication in Committed Relationships” analysis will delve more heavily into the central research questions of my study, ones that bridge the two previously explored substantive areas. This third, more focused, analytical discussion will, to a much greater extent, rely on the use of direct quotes and evidence from the in-depth interviews. While I realize that my research questions are more relevant to this latter issue, I think it is imperative to, at least, briefly explore the first two topics as natural precursors. How can we expect to understand whether smartphones play a unique role in people’s committed relationships, without first understanding the role they play in people’s individual lives more generally? Each section of the analysis is comprised of information derived from the theoretical and thematic analytical categories that have been derived from the data gathered during the in-depth participant interviews. Finally, I will bring my analysis to a close by explaining, in detail, my proposed theoretical model to bridge the two substantive areas of study.

3.1 Smartphones & Communication From the Individual’s Perspective

As a natural precursor to my discussion of the place that smartphones have in romantic relationships, I first sought to explore the general patterns of behavior surrounding mobile communication. In doing this, my goal was to create a baseline definition of mobile communication, from the perspective of the study participants, to contextualize the analysis going forward. Using this starting point, I examined the individual patterns of smartphone behavior. Cumulatively, in analyzing the definitions and behavioral patterns of my participants, the intersubjective processes that relate to the meanings that people construct around mobile communication became increasingly evident. Most of the initial questions that comprise my semi-structured interview guide relate to the basic operation of smartphone technology in each person’s life on a day-to-day basis. This cluster of questions ranges from a focus on the types of

devices and features participants use, to the forms of communication they participate in through the mobile medium of a smartphone. Using the data derived from these initial questions, I formulated a set of five prominent thematic categories, which informed a definition of mobile communication from the perspective of my study participants. People broadly define their smartphones as: (1) all encompassing; (2) updatable and upgrade-able; (3) continuously growing in integration; (4) allowing for simultaneous feature use; and (5) enabling a sense of connectedness.

From the perspective of the individuals in my sample, people have come to first define their smartphones as all-encompassing devices. For example, the access people have to multiple features on their phones, the appeal of the devices to a wide array of different kinds of people, and the centralization of people's everyday activities into a single medium, are all indicators of this all-encompassing nature people have come to associate with their smartphones. Furthermore, people regard their smartphones as updateable and upgradeable technology that is not only ever-growing and ever-improving, but that also allows expedient consumer access to these improvements. This notion of the technology being updateable and upgradeable not only applies to improvements available to consumers for a single smartphone model, but also to the reality of improvements available to consumers for several model iterations of the same brand of smartphone. As well, and as a seemingly direct outcome of this constant process of updating and upgrading devices, people also regard smartphones as becoming increasingly integrated into their everyday lives. This reality, according to the participants of my study, relates to the integration of smartphone content, technical integrations within the technology itself, and the integration of smartphones with other forms of external technology. For example, people see the devices as becoming more integrated with other everyday media like their cars, many of which now come equipped to automatically synchronize with people's smartphones. This increasing integration of

the devices into people's daily lives has important implications, particularly in terms of device use management within the context of committed romantic relationships, and is a central thematic branch that I will later explore further.

Building on these categories, people also see their smartphones as a form of technology that allows for simultaneous feature use. The implication of this ability extends directly, for many people, to simultaneous feature use in the various facets of daily life, like work and school. For others, it extends to simultaneous feature use in the management of their various relationships, those of a committed romantic nature, included. Finally, and above all, people see their smartphones as a way to stay connected to others, first, in terms of general social processes and relationship building in a wide variety of contexts, and second, in terms of facilitating efforts of safety and precaution, and in confronting emergencies. Interestingly, however, people's perception of this ability of their smartphones to connect them to others, is not wholly benign. Some people have come to regard their smartphones as providing a source of social connectedness, to a fault; thus, implying the emergence of a new possible social problem: over-connectedness. Cumulatively, this finding contributes to a much larger trend underscoring the wider data set, and that is, the ambivalence that people seem to feel about the technology in their lives. On one hand, it seems that people do express satisfaction with some aspects of their smartphones, and on the other hand, it also seems that this satisfaction is nuanced by experiences that are less than satisfying to most people. This ambivalence, when considered as a finding in its own right, remains relevant when applying the unique social context of committed relationships, as later data discussions will reveal.

To further delineate people's definitions of smartphone technology, I also explored patterns in individual smartphone use behavior in my discussion with interview participants. To truly address the research questions on how people navigate the use of smartphone technology in

the context of their romantic relationships, we must first make sense of how they use the technology generally, on an individual level. The only way to understand any pattern of smartphone behavior as unique to romantic relationships specifically, is to first delineate the patterns of behavior that generally characterize people's use of the technology. Though there are many distinct patterns of smartphone use behavior that are unique from person to person, the most prevalent themes that emerged from participant interviews can be broadly organized into the following five thematic sections: (1) brand loyalty, (2) hierarchy of communication, (3) age-related use patterns, (4) gendered patterns of device use, and (5) disengaging.

First, although people's smartphone experiences are characterized by this sense of ambivalence in terms of their satisfaction with the technology, the overwhelming majority of participants emphasized their loyalty to a particular brand of smartphone. The limited variety of smartphone brands across my participant sample set indicates a further trend of homogenization in the consumer smartphone market, and is related to significant discussions of identity generally, and, more specifically, the homogenization of identity – themes that will be later explored in greater detail.

In examining people's individual patterns of smartphone behavior, specifically for processes of communication, it became apparent that a hierarchy exists both in terms of device use and in terms of social connection. As previous literature indicates, my data supports the fact that both the variety and quantity of different smartphone communication methods is directly proportional to the strength of the social tie (Van Cleemput, 2010). For instance, many participants reported mostly relying on a combination of email and text when communicating with friends or for work purposes, while using combinations of many more smartphone communication methods like text, phone, email, and social media apps, among others, when communicating with their significant other, arguably the closest social tie a person might have.

In addition to the ways in which strength of social tie affects methods of smartphone communication, my data also reveal some interesting patterns based on age and gendered practices of smartphone use. Age affects frequency of device use. Younger people use their phones more frequently in their day-to-day lives. As well, age affects the purpose of device use. Younger people seem to make use of a greater diversity of features on their smartphones, with participants above 40 years of age reporting the use of their smartphones mostly to make calls, send texts, and use the camera, and participants under 40 years of age reporting the use of their smartphones for those same purposes, in addition to work-related apps, social media, and a whole host of other applications. This finding confirms conclusions reached in earlier studies that similarly claim differences in devices use based on age (Van Cleemput, 2010)

In terms of gender, as my sampling techniques did lend themselves to an exactly equal split of male versus female participants, they also revealed some potential differentiations in device use. On one hand, men discussed mostly using their smartphones for music applications and texting as a communication method, while women, on the other hand, discussed mostly using their smartphones for social media applications, texting and phone as communication methods. This finding from my data further confirms earlier conclusions in the literature that differentiate between the ways in which men and women use their devices (Igarashi et al., 2005). These age and gendered patterns of smartphone use are further echoed in later discussions through the exploration of data unique to couples across a wide range of age groups, and through the equally split sampling of both genders.

Perhaps one of the most revealing findings to emerge from my baseline data provides some insight into how people disengage from the technology on an individual basis. Some people have developed and adhere to a schedule for regular disengagement from smartphone use, for example during family dinners or over the weekend. Others practice processes of sporadic

disengagement, where they periodically withdraw from routine smartphone use, for instance, during stressful times. People also sometimes experience forced disengagement, when they must involuntarily withdraw from smartphone use, for example, as a result of a lost, broken, or stolen phone. Connecting this finding back to the sense of ambivalence in much of the participant data, it is interesting and pertinent to see the dichotomy developing between people's understanding of smartphones as a tool that contributes positively to their lives on one hand, and as a mechanism from which they either actively or passively withdraw on the other. This finding is highly relevant to the exploration of smartphones as both a facilitator and barrier to communication in committed relationships, themes to be further discussed.

In building first, on the individual definitions of smartphones and mobile communication, and second on individual patterns in smartphone use behavior, the third and final set of baseline findings relates directly to the highly complex meanings individuals have come to construct surrounding mobile communication, and all that it entails. If it is not already apparent, people do not seem to be making uni-dimensional use of their smartphones. Rather, in using the devices, they engage in variegated processes that compel them to associate a wide variety of more elaborate meanings to the experience. This brief discussion will be anchored around the six following themes: (1) functionality; (2) entertainment; (3) identity; (4) consumerism; (5) ambivalence of trust; and (6) inevitability.

First, and perhaps most expectedly, people affiliate an understanding of functionality with their smartphones. Smartphones are functional for people in terms of the most obvious purposes such as to make calls, send texts, and to access the internet. However, beyond those standard functions, people also regard their smartphones as functional in terms of facilitating their attempts at productivity, efficiency, and organization, in realms both inside and outside the home, and as well, in terms of offering assurances of safety, particularly for vulnerable others like

elderly parents or children. A final form of functionality that people see their smartphones as providing them with relates directly to education and personal growth, as many people make use of the virtually limitless number of growing resources available for that purpose, like brain trainer games, for example. As will be discussed in later sections, this association of functionality, as a constructed meaning, that people link to their devices, further extends to functions that are relationship-specific.

Another somewhat expected meaning people have come to associate with their understanding of their smartphones is related to entertainment. Again, there were several examples of the most obvious ways that smartphones offer people entertainment opportunities, like the use of music and video streaming applications. However, here too, there were also other, more complex, ways in which people have come to understand their devices as entertainment sources. For example, for many people, their smartphones help them to cultivate new pastimes, and hone existing hobbies. As well, many people's appreciation for smartphones as a form of entertainment is related directly to the mobility and constant connectivity they offer, specifically through the form of shared entertainment experiences. Modern smartphones allow people to engage with their social ties, of any and all strengths, through multi-player game applications, for instance. These findings will prove to be relevant in my discussion of committed couples and their unique forms of connection and engagement via smartphone technology.

People have also come to associate highly complex processes related to identity with the use of their smartphones. For example, people's devices have come to reflect their personality traits, professional associations, and even elements of preference and style through customizable features. On one hand, these distinctions allow people to establish and differentiate their identity from others, but on the other hand, the homogenization of experience that comes from the dominance of a few select smartphone brands in the market, in turn contributes to the same wider

sense of ambivalence underscoring many other major thematic findings of my study (Baumeister, 1986). The concept of identity has emerged as relevant to both this baseline discussion of individuals' interactions with the technology, and the later discussion of identity construction for those same individuals within the more specific context of their committed relationships. Processes of consumerism echoed the same trend of ambiguity, as did discussions surrounding identity. For some participants, their smartphones are neutral devices that passively facilitate their consumer activity, like general online purchases. For other participants, their smartphones are benign entities that positively facilitate their consumer activity, like helping them to make money via buy/sell/exchange applications. But for some participants, their smartphones are sometimes negative devices that invasively and aggressively compel undesired consumer activity, like forced in-app purchases.

This trend of ambivalence found in so many of the analytical outcomes of this study, could also be delineated as its own finding, particularly when applied to the concept of trust explored during so many participant interviews. People seem to recognize the ways in which their smartphones enhance their lives, but they also seem to recognize the ways in which it challenges their innate sense of comfort and/or trust. For some people this relates to distrust of smartphone technologies. Many people find it disconcerting to consider what smartphone companies do with biological data, for instance, derived from fingerprint scanners, or the implications for legal accountability and private information when users agree to the contractual terms and conditions that are unavoidable in the setup of these devices. In a broader social sense, people distrust the use of smartphones by others too, as they see them, even their significant others, as either too reliant on the technology, and in some cases, not reliant enough – a finding to be later discussed in more detail. They see the devices as impeding face-to-face interactions, they see the blurring of boundaries between shared/public space versus personal/private space (Baym, 2010), and they

see shifts in how others engage in social interactions, for example, through overemphasis on taking pictures of an event rather than experiencing it. While on an individual level, these findings are certainly revealing, their implications in the context of committed relationships offers further insights, to be explored.

Finally, people associate the growing current role of smartphones in their lives, and especially when considering the potential future role of smartphones in their lives with a sense of inevitability. People believe that smartphone technology will only continue to grow and develop. They see it as an unavoidable element of our society, and retrogressing as impossible. Smartphones have lead to a shift in socio-cultural evolution, in part because of how the technology itself has progressed, and in part because of the greater dependency of people on it. As data from the later analysis will reveal, part of this greater dependency that people have on their devices stems from the technology's role in their committed relationships.

3.2 Developing a General Understanding of Committed Relationships

Based on these initial findings, the second major section of my data focused on committed relationships in general, as a way to initially begin bridging the gap between my two substantive areas. The single biggest finding across participant couple data was the sheer extent of subjectivity and uniqueness. People discussed the unique ways in which they met their partners, how much time they typically spend with their significant others, what key descriptors they would use for their respective relationships and their significant others, and the points of agreement and disagreement that exist between them and their relationship partner, among many other topics. What these data cumulatively reveal is that, first, committed relationships can also be characterized as emergent phenomena – they have qualities that manifest only when the individual parts or elements come together. Secondly, however, these data also reveal that,

though it is virtually impossible to generalize much to wider data trends, smartphones have a way of fitting into all of these aspects of committed relationships.

Given the importance of the thematic concept of communication to both of my substantive areas of research, special focus was directed at exploring it. Every single participant in my study created their own natural association between the communication that occurs in their respective committed relationships, and the use of their smartphones in helping to facilitate it, long before I introduced any discussion of the intersection. This finding will be explored in greater detail in subsequent analytical sections. Here, however, it is necessary to note that every person I spoke with made it clear that their smartphones are a device that is operative to the unique patterns of communication in each person's respective relationship. For example, each couple reported varying data when discussing the frequency and volume of communication that occurs in their relationship, with some couples communicating all the time when they are not together, and other couples communicating more minimally. Many couples have unique patterns and perceptions of effectiveness related to processes of initiating communication in their relationship, and most couples have seen changes to their communication over the duration their relationship. For example, couples that have been together for several years report an overall reduction in the volume of communication that occurs when partners are apart, over time. As well, some couples have experienced a change in the particular methods they rely on to communicate with each other when partners are apart – while they used to use multiple methods like calling, texting, and connecting over social media in the past, now, in many cases the variety and diversity of those methods have decreased or changed drastically. What this reveals is that the length and stage of a committed relationship dictates the volume, methods, and processes of (technology-mediated) communication that occur within it, and this finding lends itself to many pertinent analytical discussions to come.

In addition, people do not blindly engage in these patterned behaviors, rather they are, in many cases, highly reflexive and aware of them, particularly when enacting evaluative and corrective measures. Some people see their relationship communication as highly effective, in many cases, as a direct byproduct of time and experience spent honing it over the course of the relationship. Other people see their relationship communication as still developing to become more effective. These baseline findings will help contextualize the upcoming discussion related to the particular communication challenges that couples experience, and the resolutions they have reached, particularly when using smartphone technology. These findings are pertinent for my research: first, because they reveal how readily people associate smartphone technology with processes of communication in their relationship; second, because they show how technology can both facilitate communication and sometimes act as a barrier to it in committed relationships, further emphasizing the underlying theme of ambivalence in my research; and third, because they indicate the potential that people see in their smartphones to help them improve aspects of communication with their partner. These findings create a strong foundation for further discussion in subsequent analytical sections.

In summary then, smartphones possess emergent properties because of the aspects of mobility and constant connectivity they offer, and committed relationships also possess emergent properties because of the sheer variety of subjective elements that constitute each romantic partnership. With the quality of emergence being so characteristic of both experiences – using smartphones, on one hand, and being in a relationship, on the other – the intersection of these two subfields necessarily indicates that highly complex social processes are at work when people use their devices within their relationships. By having carefully developed this baseline set of findings, and exploring the data that support it, the gap separating my two substantive areas of focus has been partially diminished. The third, and final analytical section through which my

findings have been organized seeks to directly bridge modern smartphones and committed relationships.

3.3 Smartphones & Communication in Committed Relationships

During the data collection and analysis, many thematic patterns emerged that spoke specifically to the intersection of the two substantive areas I am researching. Several questions in my semi-structured interview guide were especially designed, both in content and in placement within the guide, to encourage participant consideration of this intersection. Interestingly, although this question set appears at the end of the interview guide, most participants naturally brought up the issues relevant to these questions much earlier on in their interviews. While it may be a bold, seemingly-sweeping generalization to make, much of the previous data I have summarized alludes to the reality that smartphones are as entrenched in modern relationships as any other feature that could be considered intrinsic to human bonds of a romantic nature. I am aware that my sample set consists exclusively of participants who are smartphone users, however, the CWTA 2017 reports reveal that there are 30, 437, 561 wireless subscribers across Canada, which has a population of around 35.85 million. So, it seems that around 85% of Canadians are in fact mobile phone users. International ratios echo slightly less extreme extents of mobile phone integration, but, nonetheless, still represent the majority of people. The Statistics Portal (2017) reports approximately 4.8 billion active mobile phones in a world of 7 billion, representing almost 70% of the international population. Of course, these percentages may be skewed as a result of several factors, single individuals having multiple wireless subscriptions, for example. The fact remains, however, that most people, and most Canadians specifically, have a mobile device. All of this evidence speaks to the connection people seem to draw between their mobile phone use and its function in their day-to-day lives, including their romantic relationships.

The analytical sections thus far have focused first, on summarizing the fundamental ways in which people make sense of their use of mobile communication devices on an individual level, and second, on summarizing the ways in which people delineate the qualitative features of their committed romantic relationships. The goal with these earlier sections was to develop a baseline understanding of the two substantive areas of research I have sought to explore, specifically from the perspective of my research participants. While these earlier analytical summaries were rather basic, in terms of the thematic categories constructed, the remaining analyses uses more abstract themes to investigate the intricacies of the data that participants revealed with regard to the intersection of my two substantive areas.

Specifically, there are four overarching thematic trends that emerged from my analysis of the in-depth participant interviews that not only best serve to explore the data, but that also help to form the foundations of my proposed theoretical model. They are: 1) connection; 2) communication; 3) control; and 4) constancy. These four themes, which I will henceforth refer to as the four Cs, refer to what I believe to be the foundational elements of committed relationships in the context of modern smartphone technology, much in the same way Sternberg (1986) identified intimacy, passion, and commitment as the three foundational elements of love. As earlier discussed, Sternberg's (1986) theory proposes that the way in which these three elements interplay dictates both the amount and type of love people experience in romantic relationships. Similarly, I argue that the three elements that constitute the foundation of love, intimacy, passion, and commitment, are now mediated by the four Cs, as they relate to the existence of loving relationships in the context of modern smartphones. I will later discuss, in detail, the components of my proposed framework, as well as provide a tangible representation of my model. However, first I will anchor my proposition in a detailed analysis of the evidence from my data set.

3.3.1 Connection

At the most basic level, all phones are designed to connect people, and I would go so far as to argue that smartphones connect people to a greater degree than any other similar medium in history. Now, to make the immediate link to the context of committed relationships, there are several ways in which modern smartphone technology serves to inform relationship connections. Specifically, people form connections in their relationships by using their smartphones as 1) a tool for partner selection/dating; 2) a channel for communal relationship activities; 3) a bridge that diminishes physical distance; and 4) a mechanism to extend social media content and networks.

There is evidence in my participant pool that people do use their smartphones as a way to initially start their romantic committed relationships by way of online dating websites, as well as smartphone dating applications. Of the 56 participants I spoke with, five people reported having met their current partner via an online dating site or application. While this is less than ten percent of my participant pool, many other participants talked about their past experiences doing the same. In fact, according to statistics from eHarmony.ca, around “20% of current, committed relationships began online” (2017). Against this backdrop, what was interesting in my data, and most relevant to my focus, was the discussion that emerged with these and other participants about their recent and past experiences with online dating and smartphone dating apps.

First and foremost, in discussing the ways in which they have used sites or apps via their smartphones as a tool for partner selection, many participants talked about the unique ability that the technology and practice offer in terms of finding a relationship partner with whom an individual’s personal goals align.

Her profile had all the stuff that I was looking for. She wasn’t looking for some casual fling, she doesn’t smoke, she’s got her head on straight, you know all the qualities I wanted in a

partner. Seeing it all written there and then meeting her and realizing it was all true was the best feeling. (Darius, 30, Partner: Imani, 30).

I was, of course, skeptical that I would meet anyone worthwhile on Tinder, but I gave it a fair chance. There were a lot of girls I did not meet up with or see again because we didn't click, they didn't get me or have similar goals. Rachel did, and I don't think our paths would have crossed if we weren't both on the app. (Sook, 23, Partner: Rachel, 22)

We were both on the same website for Muslims only. It made it a lot easier to move out of my immediate friend circle to find someone. (Layla, 28, Partner: Amil, 31)

This tendency for people to seek connections to others like themselves speaks to Baumeister's (1986) suggestion that the components of people's identities are rooted in a sense of continuity, often related to the continuity of the beliefs and goals they share with their significant other. Furthermore, the ability for people to take greater control over their pool of potential relationship partners exhibits the extent to which they are operating as networked individuals (Rainie and Wellman, 2012), and to what degree processes of technology use are determining social relationships in the technical versus social determinism debate (Ling, 2004). Smartphones have altered the ways in which our social relationships become established and evolve, and have therefore had qualitative implications on the related social processes. In the past, while people may have formed relationship bonds via family networks in particular socio-economic classes, for example, now, as people operate as singular nodes in their own networks (Rainie and Wellman, 2012), they use the technology to pick and choose who they want to be with. As well, as earlier literature concludes, "there is a reliable latent structure of how people understand love" (Aron and Westbay, 1996), and it seems that the sharing of personal goals and beliefs is paramount in that understanding. This is not a revolutionary finding, as it does seem quite logical that people should seek others with whom they have things in common to have romantic

relationships with. What is notable, however, is the fact that, there is a centralization of power within the networked individual (Rainie and Wellman, 2012) to decide what the parameters of those commonalities are.

Further building on this data, some participants also discussed their approach in using their devices to apply restrictive and organizational processes as a tool of partner selection.

Online dating makes it easy to weed out the duds. I met my last boyfriend on there a few years back and I had a system to go along with it. I would narrow down the guys that would message me first by their photos, then whether their message was well written, then by judging the rest of their profile. I would save all the info I would learn about them through message or text in my phone so that I wouldn't mix anyone up. (Jasmine, 29, Partner: Nicholas, 33)

The internet has long offered users the ability to find, select, and narrow down partner choices by way of online dating sites and the tools they offer. However, the design of smartphone applications for online dating sites, as well as the advent of apps for dating channels that are exclusively available on the devices, is a testament to how many people are using their smartphones as a tool for partner selection. One of the most recently popular, exclusively mobile, smartphone dating applications, referenced by some of my research participants is Tinder. It launched in 2012, and attracts approximately 3.6 million visitors per day in the U.S. alone (Dogtiev, 2015). A 2015 article published by the Business of Apps (Dogtiev) further claims that, as of July 2014, "online dating increased to 60% on mobile versus 40% using desktops." Findings from my data support this research in emphasizing how modern smartphones are involved in making the connections leading to committed relationships.

Beyond the use of smartphones as a tool for partner selection and dating, modern smartphone technology also serves to develop connections between partners once they do start dating. Specifically, it seems, based on the data provided by my participants, that people are

using their devices as a channel for communal relationship activities. While, in the past, this type of experience has been strictly reserved for in-person interactions or, alternatively, after the advent of the internet, at least required a person to be fixed to their home computer, smartphones enable people to engage in these types of activities anytime, anywhere. For instance, Saira describes how she “really likes downloading free games...that you can play interactively with people you know” since they are “especially cool” (Saira, 30, Partner: Fayzal, 30). She also revealed how engaging in this type of interaction with her boyfriend or her “friends and family, is another level of fun” (Saira, 30, Partner: Fayzal, 30). This finding confirms earlier research that claims that smartphones, as a form of computer-mediated communication are used to “remain connected with partners” (Zaidi, Couture and Tyndale, 2012). While this fact on its own may seem obvious, what is noteworthy is the fact that the connective ability that smartphones give to partners is not wholly dependent on the traditional phone features like calling or texting, rather, it extends to other types of activities as well. These activities only continue to grow in quantity and variety when considering the increasingly growing number of smartphone applications available. Statistics show how Apple’s iOS app store has virtually exploded in the last five years alone, going from a total of about 700, 000 available apps in 2012 to a total of over 2.2 million available apps in 2017 (Lifewire, 2018). With the possible methods of relationship connection diversifying and growing via available smartphone applications, it is clear to see the ways in which the technology has changed the qualitative nature of relationship interactions.

The connections formed via communal relationship activities are not simply limited to endeavors in entertainment, but also extend to directly tangible outcomes for some couples that use their devices to connect with each other in the pursuit of consumer activities.

It didn't start out like that, but a few years ago we accidentally bought something online that didn't turn out to be what we wanted, and when we went to resell it, we

actually made a profit. Now, we kind of do it on the side – buy different sorts of things and try to turn them around for a profit. We don't make copious amounts of money or anything, but it's still something. Coordinating all of that gets done mostly through our phones once we post ads it all gets managed there. We both have full time jobs elsewhere, so being able to coordinate through our phones is really helpful. (Shamil, 31, Partner: Alayna, 30)

From this and other similar data, it is clear that, not only are smartphones helpful to people in practical ways, but they also offer indirect benefits in terms of providing a figuratively connective quality in committed relationships. This finding echoes research in this subfield, which emphasizes that the “mobile telephone contributes to the development and maintenance of social cohesion within the closest sphere of friends and family” (Ling and Stald, 2010: 1133). On a regular basis, people perceive and use their smartphones as a relationship-building mechanism to form a connection with their partners, whether the aspects of commitment are romantic or non-romantic in nature.

Smartphones act as a bridge that diminishes physical distance, particularly for those couples that are not physically proximate enough to engage in more traditional forms of interaction and relationship-building behaviors. In a world characterized by processes of globalization where people regularly traverse the globe, modern smartphones are helping people to form and maintain connections with their significant other, regardless of their geographical locations.

When my boyfriend was living in a different province during our undergrads, I don't know how our relationship would have lasted if we didn't have our iPhones. Texting all day, FaceTiming each other every night before bed, even just sending each other funny photos or articles throughout the week, kept us afloat between visits. (Jessica, 24, Partner: Matthew, 24)

While there is no way to predict whether Jessica and Matthew's relationship outcomes would have been similar without their smartphones, what is substantively important as a finding, here, is the fact that they believe that their devices did play an important role in maintaining their relationship. Just as Baym (2010) contends, modern smartphones have given people the ability to extend communication across space and times in new ways. What matters most, are the meanings that the individuals are assigning to the devices and to the experience of using the device in their respective relationships. Therefore, I argue that the perceived impact of modern smartphones as a mechanism that gives people confidence in their long-distance relationships is just as impactful as the presence of the device itself on the committed relationship.

The fourth and final way that participant data revealed smartphones as impacting the forms of connection that develop in romantic committed relationships, is as a mechanism to extend social media content and networks between the members of couples. Social media, as it is commonly understood, refers to any internet-based social networking framework through which people can connect to others using various features. While social media sites are sometimes accessible via traditional web browser on a computer, people most often access them via applications on their smartphones. The most regularly used social media platforms that my study participants referenced were: Facebook, Twitter, Instagram, Snapchat, and LinkedIn. While each platform offers unique features, methods, and experiences of social networking, at the most basic level, they all perform the same social task of connecting people, many of whom would have little or no ability to do so otherwise. In some cases, social media connects people to others that they know or have met previously, and in some cases it gives people the chance to connect to others they do not know, have never previously met, and would likely have never encountered without the online network. In terms of how social networking sites play a role in people's use of

smartphones within the context of their relationships, some participants focused on bonding features like the ability to share relationship- or partner-specific content.

There are a few accounts we both follow, and some that she follows that are different from mine. Like we both subscribe to the IFL Science page, and we are always like ‘oh did you see that article from today?’ Or if it’s one that I know she’ll really like, I’ll send it to her through private message, and then the big debate becomes ‘did you read it yet’ or ‘did you watch it yet’ or whatever. Most of the time she’ll end up looking at whatever it is at some point, but of course, there are those times when she forgets, or when I forget, but if it’s important enough to either of us we will seriously just keep pestering each other to look at it until the point comes when we end up forcing each other to look at whatever it is, like actually sitting each other down, pulling out our own phones, and reading it or watching it together. (Chris, 23, Partner: Laura, 22)

In referring back to Ling’s (2004) discussion of the domestication approach, he highlights several steps as predictable to the integration of the technology in social processes. Specifically, these data echo the progression of the “appropriation” stage when people explore how the technology can be useful to them, to the “objectification” and “incorporation” stages during which people personalize their use of the technology and it becomes integrated into their lives (Ling, 2004). In the case of the evidence provided here, these data speak to the appropriation, objectification, and incorporation of smartphones, and the features they offer, into people’s committed relationships, suggesting that the technology undergoes its own domestication processes when used in the specific context of people’s relationships. Partners actively compel each other to move through these stages to varying extents depending on the specific relationship elements that they share via the technology.

Other participants who similarly focused on aspects of social media use that create bonds within their committed relationships alluded to the impact that having a growing, shared social network can have on the partnership.

We've been together almost four years now, and it's been pretty cool to see the meshing together of our friends. I mean, it's not like he's become close with all my friends and I with his, but we have been together long enough now that pretty much everyone important in his life knows me, and vice versa, and you can see it from our friends list on Facebook and Instagram. What started out as no mutual friends, and then 10 mutual friends, and now more than 60 mutual friends, it's kind of amazing to see all of those connections that stem just from us being together. (Jasmine, 29, Partner: Nicholas, 33)

Although some of the evidence surrounding the role of social media in committed relationships and people's access of it through their smartphones emphasizes these positive effects, other data reveal a more problematic perspective. For example, in building on a similar discussion about social network peer groups, some participants talked about ways in which this process of developing an online network has had negative impacts on their relationship. In one context for example, the idea of undesired connections was discussed.

We've known each other a long time, not all of which time we were actually dating, actually together. We both knew about each other's past relationships, like I mean all the details. So, when we started going out, and a few months in, his ex re-added him to Facebook and started refollowing him on Twitter and I think Instagram too, she started flirtatiously commenting on and liking all of his photos, I saw this sitting on the TTC and I was like what the hell? Of course, I called him right away, we argued about it for a few days, to him it was like whatever she's a person in my life, and I was like, no, she's not you're friend, you don't speak with or see each other, so why does she need to be so active in your life online? I expected him to delete her and her comments, and eventually he did. I would never allow something like that if it made him uncomfortable, and eventually he understood my point of view. (Sophia, 23, Partner: Riaz, 26)

Despite the fact that Sophia's conflict was resolved, it raises a pertinent question about the role that new forms of communication technology in general, and smartphones specifically, play in matters of fidelity and honesty in committed relationships. As Swidler (2001) emphasizes,

“the problem is that the autonomous choice that initiates a [relationship] can always break it up again” (Swidler, 2001: 137). In a 2016 documentary entitled, *America’s Secret Sex Life*, Noel Biderman, former CEO of AshleyMadison.com, a social networking and dating site that targets people in committed relationships/marriages, discusses the idea that “infidelity rates are definitely on the increase and technology is the driving force” (2016). The documentary goes on to clarify that, “now, with apps available for cell phones that allow you to have an affair wherever you are, adultery is set to become even easier...affairs which used to be a thing of the workplace are now just a click away” (2016). Turning to the most classic theoretical explanations for human desire and sexuality, Freudian psychosexual theory posits that Western civilization’s highly restrictive boundaries on sexual acceptability are the single greatest source of unhappiness in modern society (Freud, 1989). According to Freud, the idea that, in order for sex and sexuality to be legitimized by society, it must occur within the context of an age-appropriate, heterosexual relationship sanctified by marriage, is exceptionally prohibitive; it is out of alignment with the range of idiosyncrasies that are truly characteristic of human sexuality. Although what society deems as socially acceptable in terms of sexuality has certainly progressed since Freud’s time, the fact remains that, even today, there are major limitations on what people can and cannot openly do as far as their sexuality is concerned. Swidler (2001) echoes similar ideas as she claims that “the institutional demands of marriage continually reproduces the outlines of the mythic love story,” and despite the rigidity of those demands, “criticism of a dominant ideal will not eliminate it as long as it still provides a useful guide to action” (Swidler, 2001: 129). Theoretically then, smartphones, insofar as they are used as mechanisms leading people to liberate their true inner desires, could be regarded as a potential antecedent to growing individual happiness in modern society, even if it may come at the cost of the health of an existing relationship.

The example of undesired peer connections was not the only instance in which the adverse impact of social media connections was explored during the discussion of social versus relationship expectations. A few other participants spoke more generally about the role that being active in online networks plays in terms of their perceptions of their own committed relationships. I have collectively grouped this set of responses under the subtheme of “comparative online observances.”

I am on Instagram and Twitter and even Facebook now, but I have opened and closed my accounts on more than one occasion. Sometimes I just feel like I need a break from it all. Especially because everyone my age is on the same track of buy a house, get married, produce babies, the whole thing, and we're not like that. It gets overwhelming to see literally **everyone** you know doing those things except for you. And I am totally happy with my choices, but when it's not fun to be on there anymore I just take a time out and come back when I'm ready. (Lisa, 27, Partner: Robert, 27)

Both of us are just finishing school and establishing our careers, we are on a very limited budget, we don't have the means to do some of the things that our working couple friends do, like go on vacation multiple times a year. It gets to me sometimes when I'm stressed and see people's beach photos and think why can't Fayzal and I be off sipping margaritas somewhere, but we know our hard work will pay off eventually. (Saira, 30, Partner: Fayzal, 30)

A traditional Social Constructionist perspective helps to explain how people, stemming from their life's cumulative social interactions, develop very strong ideas about what their beliefs, relationships, and lives in general should look like, as micro-level expressions of macro-level social beliefs (Berger and Luckmann, 1966). Social media channels create a window through which people have the chance to form connections to others and see the proverbial 'greener grass on the other side,' and this, in turn, impacts how they perceive their own committed relationships. Now, of course, it must be stated that people are under no obligation to join social networking sites, and that they do so of their own volition. However, it could also be argued that, in a world

so dominated by technology, in the same way that it has become seemingly impossible to avoid the adoption of smartphone technology, it is equally difficult to avoid the voluntary subscription to social media, as an apparent form of social currency.

To summarize, the participant data that speak to this larger theme of connection, as one of the four Cs, paints an interesting picture when considering the role of smartphones in the context of people's committed relationships. On one hand, it seems to have highly positive impacts. For example, it must be emphasized that, one of the most pertinent findings of my research indicates that smartphones have had direct implications for committed relationships, by way of helping to establish some of them. Smartphone dating apps allow people to connect to a whole pool of potential partners, and social networks more generally, that they would not have without the device. As well, the impacts of the devices on the ability for couples to participate in bonding activities, share social media content and networks, and maintain an established connection, regardless of physical distance, cannot be discounted. On the other hand, the data point to some problematic aspects of these connections as well, as has been discussed. Harkening back to two earlier findings summarized in section 3.1, we have encountered newly developing evidence of the problem of over-connectedness, and a sense of ambivalence in people's attitudes to the role devices play in their lives. Ultimately, what must be taken away from this discussion, is the fact that connection, as a higher-order theoretical concept, rooted in the thematic analysis of the data, points to an important way in which smartphones impact people's committed relationships and how they mediate practices of intimacy, passion and commitment, that are the components of their loving relationships (Sternberg, 1986). These devices have altered the way people connect to each other on a wider societal level, and, as well, in their committed relationships specifically. The connective abilities that smartphones afford people are starkly distinct from technologies that existed previously, and this is one way in which we can understand and evaluate the role of the

technology in our relationships and lives more generally. As a result of the significance of these devices have in people's lives, they are able to form connections easier and more quickly, to an entirely new network of people, and they are further able to maintain those connections in more effective forms because of the technology.

3.3.2 Communication

I began the previous section, 3.3.1, on Connection, by claiming that, at the most basic level, all phones are designed to connect people. Now, to introduce the second of the four Cs, I will make the claim that, once people are connected via their smartphones, their interactions represent unique forms of communication as a result of the technology. Communication, as my data show, not only refers to the basic exchanges of existing frameworks such as language via text messages and phone calls, but also extends to include a variety of more complex processes, beliefs, meanings, and behaviors for social actors. In particular, as people use their smartphones to engage in communication within the context of their committed relationship, they have come to regard their devices as 1) instruments for navigating daily communication with their partners; 2) pathways that introduce new communication challenges, and thus the need for developing new communication resolutions, into their relationships; and 3) a communication medium with unique abilities.

In my earlier summary of the ways my participants view committed relationships (section 3.2), I concluded that my data show that the length and stage of a committed relationship influences the volume, methods, and processes of (technology-mediated) communication that occur within it. These earlier data have direct links to the concept of communication, as a higher-order thematic category, and one of the four Cs. Specifically, it is necessary to note that, as couples move through various stages of their relationships over extended periods of time, those

volumes, methods, and processes of communication take on distinct characteristics as a result of the intersecting context of social interactions using smartphone technology in committed relationships.

Referring specifically to the unique day-to-day experiences of couples, several study participants discussed the ways they regularly use their smartphones to communicate with their partners. For example, a compelling dichotomy developed between participant responses that defined devices as a tool for relationship building, versus those that defined them as a tool of relationship breaking. On one hand, there were those interviews that delved deeply into a discussion about the various ways in which people understand and use their devices as a communication mechanism for (re) affirming their relationship. Several respondents talked, in particular, about the specifically romantic ways their phones help them to affirm their committed relationship, especially over long periods of time.

There's nothing sweeter than getting one of the 'just because' texts from your SO. Even though we've been together for many years, we still make a point of sending one of those sweet messages once in a while. It keeps us both rooted in our relationship, and I just think it's so important to remind those that are special to you that they are. (Imani, 30, Partner: Darius, 30)

Oh my god, we have so many inside jokes or little phrases that only have meaning to us. We are constantly sending each other cute memes that remind us of them or always adding an emoji to our messages or whatever. In between all the special occasions, birthdays or anniversaries or vacations or whatever, we both make an effort to keep things lovey, even in small ways. I know it sounds corny, but my heart still does that flutter thing when I hear his text tone go off, and honestly these small things is what I see that keeps our relationship fresh and exciting even after being with each other for so long. (Jessica, 24, Partner: Matthew, 24)

Several other participants also discussed using their devices as a tool for relationship building, however, they focused on more non-romantic reasons for communication, like paying

household bills, as Tina's interview excerpt (below) indicates. Together, both categories of evidence can be well-framed by the Affordances Approach (Ling, 2004) to understanding the relationship between technology and society. As the perspective claims, the technology allows some types of behavior that links the individual to the larger social structure. In these cases, the technology enables couples to affirm their relationship through both romantic and non-romantic forms of communication, and further extends the earlier research finding that "the majority of individuals frequently used cell phones to communicate with their partner, with 'expressing affection' being the most common reason for contact" (Coyne et al., 2011: 150).

Our work schedules do not work well together, so a lot of our regular, important communication happens through our phones. If I couldn't just text him to remind him to pay a bill or if he couldn't just call me to remind me to grab something at the grocery store, I don't know where we'd be. It's just a text or a call, but knowing that someone who has your back for anything is just a button push away helps us make it through our opposite schedules. (Tina, 33, Partner: Terrance, 31)

There were also several participant interviews, however, that revealed data on the other end of the spectrum. These discussions focused on the ways people understand and have used their smartphones to navigate relationship breakdowns. Here, 'breakdown,' is a broad term I have constructed, meant to refer to any undesired disruption to the regular flow of the relationship, and is intended to reflect a diverse array of terminology that participants used in explaining any such experiences including, but not limited to: fights, arguments, clashes, disagreements, hostility, and conflict. It is important to note that, according to the existing literature, these breakdowns are part of most relationships, despite the resistance people often feel towards their normalcy. Some researchers have even gone so far as to relegate the belief that disagreement is destructive to a relationship as one of the most pertinent "dysfunctional" beliefs in marriages and relationships (Eideslon and Epstein, 1982). I have separated these data thematically into two further

subcategories to capture two distinct forms of participant experience. On one hand, there were those participants that talked about the passive ways they use their smartphones as a communication tool to navigate relationship breakdowns.

I still live at home with my parents when I'm not at school, so sometimes when we're in a fight, I'll literally just ignore his calls or messages to make a point, to give us both time to cool off. Usually a day or two, and then we'll work things out and make plans. (Zahra, 19, Partner: Sunil, 19)

Both of us are really non-confrontational, we almost never fight, which is good and bad. When things get a little intense or hostile, we just have a way of taking an automatic time out where we won't text or call for a while. We reboot, then one of us will call the other and we just move on. (Riaz, 26, Partner: Sophia, 23)

Interestingly, in both of these and other similar cases, the lack of communication that occurs via people's smartphones is often just as powerful, in terms of its impacts on a committed relationship, as the actually executed communication. Alternatively, some participants discussed the more active or aggressive communication approaches they use, or have seen others use to confront relationship breakdowns.

We are one of those couples that solves problems over text or long emails. I think it just gives us both time to think about what we want to say instead of yelling at each other in person or you know saying things we don't mean over the phone. (Fayzal, 30, Partner: Saira, 30)

I had this boyfriend once who would call bomb me when we were in an argument, you know where he'd call me ten, fifteen times in a row, basically until I'd answer. Obviously that relationship didn't last. It was like an abuse of the technology and my boundaries. It's just such an overbearing way to force someone to acknowledge your presence. (Seher, 22, Partner: Zaman, 25)

These instances show varied examples of how smartphones can be, and are being used by couples to communicate in ways that are unique, not only to the individual people involved, but

also to the age of smartphones. They point to patterns of communication that impact the practices of intimacy, passion, and commitment (Sternberg, 1986) in committed relationships. One particular theoretical lens helps to illuminate these patterns, specifically the second of the seven performance dynamics outlined by Goffman (1997) in his model of dramaturgy, dramatic realizations, which refer to the use of gestures or signs that emphasize an individual's commitment to a given definition of the situation. These data reveal how participants engage in dramatic realizations (Goffman, 1997) as they respond to relationship breakdowns, whether in more passive or more aggressive forms. They tend to use their mobile communication devices in ways that exemplify their existing perspectives on their respective relationships and the technology-mediated interaction that occurs within the context of it, or lack thereof.

While finding ways to use smartphones as communication tools to help navigate daily interactions is one way that the technology has become embedded in committed relationships, much of the participant data gathered also reveals the ways in which the devices open up pathways for couples that introduce new communication challenges. The four communication challenges that the participant pool collectively most commonly identified included: miscommunication, reliability of the technology, dissatisfaction with patterns in initiating communication, and lack of response. These findings fit in with earlier research done that confirms that mobile phones often introduce new forms of conflict into romantic relationships (Khunou, 2012).

Firstly, many respondents discussed several contexts in which miscommunication has been problematic in their relationship.

Of course we have had communication issues in the past, and still do sometimes. I think the biggest culprit is usually when something gets lost in translation. Gosh it's happened so many times to us through text! Just two weeks ago I sent him a text saying 'we need to pay the cable bill.' To me, this was

my way of asking him to do it, but of course, to him, he saw it as me just informing him, I guess? Needless to say, the bill was late, I ended up paying it, guess I gotta be clearer, especially when texting. (Layla, 28, Partner: Amil, 31)

Again, Goffman's (1997) dramaturgy offers a particularly useful lens through which these data can be framed. Specifically, this evidence seems to demonstrate an example of the fifth of the seven performance dynamics, misrepresentation (Goffman, 1997). Misrepresentation, as earlier discussed, refers to the fact that, as people interact, their gestures/performances are vulnerable to misunderstanding since people do not always interpret another's performance as it was intended (Goffman, 1997). My data show that people's use of smartphones in the context of their committed relationships, often exacerbates this particular performance dynamic, specifically by way of the characteristic features of the device, like the inability to communicate tone via a text message.

Other people I spoke with focused on the aspects of the technology itself that present unique challenges for the communication in their relationships, picking up on themes that, again, echo the technical determinist perspective (Ling, 2004). Unlike the dominant form of communication that preceded modern smartphones, namely the landline home telephone, smartphones, present distinct communication hurdles for people in relationships because of the immediacy people have come to expect from them. That expectation for immediacy comes directly from the widespread knowledge that modern communication devices are the exact kind of connective links that allow networked individuals (Rainie and Wellman, 2012) to operate as separate nodes in a widespread social network.

My biggest frustration is trying to call her when her phone has no signal in her house. Messages will bounce back and calls will go straight to voicemail and sometimes it'll be like twenty minutes before she gets them. I know it sounds insignificant, but when it's constant, it gets difficult to deal with. (Nicholas, 33, Partner: Jasmine, 29)

Further exemplifying the communication challenges couples identify in their relationships, and building on the earlier discussion of general patterns in initiating communication and the frequency of relationship communication, many participants also framed the issue of initiating communication as somewhat problematic. Again, the expectations people have come to place on each other, especially in relationships, have exponentially increased as a result of technologies like smartphones because people are aware of how easy the devices make communication.

When you've been together for years, of course there are times you realize that you don't do the same things you used to. You know, texting something sweet just because. It definitely has become a little, or more than a little less frequent over the years. It would be nice if Albert still did message and call like he used to in the beginning, but we don't live in a Hollywood romcom, things have changed, and of course we are close in ways now that we never were at the beginning, so it's a trade off. (Cecilia, 31, Partner: Albert, 31)

There are a couple of points worthy to note here. First, is the fact that the diversity of communication options smartphones offer people, from texting to calling, seems to create a greater expectation, overall, for more communication between partners. Second, is the fact that people use technology-mediated communication patterns that existed at the earlier stages of their committed relationship as a comparative barometer for satisfaction with communication patterns at later stages. While the latter claim could also be made of communication forms that predated modern smartphones, what is pertinent for this discussion is the reality that these devices do introduce new levels of expectation between partners in committed relationships.

Finally, some participants focused on notions of reciprocity in identifying challenging elements of communication in their relationship.

I always find it irritating when I send messages to him that he doesn't respond to. I know it's not personal, because he's just like that with his phone, but that's probably been the most

difficult ongoing issue in our communication. (Sophia, 23, Partner: Riaz, 26)

Yeah, I think maybe any issues we have stem from what each of us is most comfortable with. I prefer texting, it's just easier and faster, but sometimes she'll just read my message and call me whenever she can to respond, instead of texting back. It gets hard sometimes, especially when I want an immediate response from her, sometimes it's like 'just text me back,' but we've both adapted to each other a little bit. (Terrance, 31, Partner: Tina, 33)

The particular concern with reciprocating sent text messages that participants are here emphasizing speaks to larger trends in the existing research that highlight the unique features that text-based messaging offers in terms of traditional patterns of communication. Earlier in my review of the literature, I discussed Spagnolli and Gamberini's study of text messaging, in which they found that "exchanges frequently lack openings and closures, show an effort towards reciprocation, use implicit or anticipated actions...and that social presence seems characterized by a sense of constant availability, symmetric commitment and shared understanding" (2007: 343). My findings not only echo these conclusions from the existing literature, but also extend them by way of their application to the exchange of text messages, and communication more generally, within the specific context of committed relationships. It seems that, since people know that smartphones are mobile, and therefore seemingly ever-present in the lives of the people that own and operate them, there are new expectations that arise on a social level as a result of the presence of the technology.

The latter interview excerpt from Terrance also naturally lends itself to one final thematic subset within the larger discussion of communication challenges— communication resolutions. Upon asking each study participant to reflect on the communication challenges in their relationship, I further probed into the types of solutions they had reached or attempted. Responses

varied widely, particularly in terms of the specific descriptive approaches of each couple. However, these findings can be broadly grouped into the following four categories: clarity, tone, urgency, and adaptation. First, there were those study participants that discussed the notion of improving clarity as an attempted resolution to communication challenges. In speaking with one participant, he emphasized how being able to “isolate the issue down to the bare bones is something” he and his partner have learned to do over time (Sook, 23, Partner: Rachel, 22)

Many people with whom I spoke about greater clarity in their communication processes linked the idea first, to issues of miscommunication that occur specifically via text messages, and second, to conceptions of relationship growth, just as several earlier interview excerpts also do. The following quotes from Jessica and Zaman both emphasize how miscommunications, especially via text-based messages, were more frequent during earlier stages of their relationships, and how they and their respective partners have grown together within the context of their commitment to overcome these issues.

When we were first getting to know each other, of course it was hard to decipher the **real meaning** of each text, a lot of interpreting and misinterpreting happened in the early stages of our relationship, I think like with anyone else really. The more time that passed though, the clearer we learned to be with each other, and it really helps to avoid fights. (Jessica, 24, Partner: Matthew, 24)

The general rule of thumb I’ve learned over the years is, be careful what jokes you make, and especially how you make them over text message. They don’t always translate, so when I’m kidding around with anyone through text, I try to add emojis or memes to be as clear as I can that I’m just joking, especially with Seher. (Zaman, 25, Partner: Seher, 22)

Another heavily emphasized subtheme that participants included in their discussion of the various types of resolutions they have attempted related specifically to tone. Shamil commented

that “tone is so important in getting your message across. Changing that, can help resolve almost any conflict” (Shamil, 31, Partner: Alayna, 30).

One participant, in particular, drew an interesting comparison between approaches to resolutions for communication problems in person versus via technology.

When we’re together and problems come up, they get solved a lot faster because it’s a lot easier to remember your love and go towards forgiveness when the person is there looking you in the face. With us though, living at opposite ends of the city means that the majority of our communication happens over text, phone, Skype, Facetime, whatever, where it is so easy to just hang up, end the call, stop answering the messages, and just check out. We’ve learned from this, and I personally have been really trying to watch my tone, especially when issues come up, because that’s how they usually escalate. (Jasmine, 29, Partner: Nicholas, 33)

This dichotomy between the effectiveness of problem resolution processes that occur in person versus via technology raises an important analytical point. While so much of the data point to ways in which modern smartphone technology creates new bridges that help couples to maintain their relationship, while away at different schools, for example, these data also reveal the ways in which modern smartphone technology can introduce new communication problems. Earlier, I summarized a discussion of the ways in which people disengage from their smartphones. In that context, the notion of disengaging referred to occasions during which participants consciously reduced or eliminated their use of smartphones, whether it was intentional or not. In this context, however, the notion of disengaging from communication with an individual’s significant other is directly related to the state of the relationship. People can, thus, actively, and perhaps even more importantly, variably choose to use the technology as either a bridge of communication in their relationship or as a barrier. When considering the respective arguments on which the technical versus social determinist perspectives are premised, these data emphasize, on one hand, how an individual’s social situation can affect their use of the technology, and, on

the other hand, how modern smartphone technology is shaping, even creating, new forms of social interaction.

The third thematic subcategory within the larger discussion of resolutions for communication challenges in relationships is the notion of urgency. Interestingly, unlike the previous two thematic groups under resolutions – clarity and tone, which presume the occurrence of communication in the first place – this theme shows how one solution that some people rely on to combat communication challenges in their relationships actually affects the basic occurrence of communication. On one hand, there were those respondents who reflected on the process of rating the importance, or urgency, of their communication material as a way to guide their communication behavior, particularly their fundamental choice to establish a line of communication in an effort to reduce conflict in their relationship.

I always think about whether it's something that's going to upset her. If it is, I won't even call or message about it, better to just wait for the right time or place to avoid a blow up when we're not together. (Chris, 23, Partner: Laura, 22)

On the other hand, there were also those respondents who discussed choosing specific methods of communication in relation to the importance or urgency of their communication material, as a way of overcoming communication challenges in their relationships.

From past experience I've learned that it's better to deal with the big stuff when channels of communication are the most open and easy. If there is something important or time-sensitive, I won't waste time with texting, it's better to just call to avoid frustrations and tempers getting high. (Hafeez, 30, Partner: Salma, 29)

In essence, what Hafeez is referring to is the process of creating a front (Goffman, 1997), insofar as it relates to the manipulation of a particular stage or setting as a channel for facilitating relationship communication. In Goffman's (1997) delineation of this performance dynamic specifically, he emphasizes that people 'create a front' as a way of communicating the role that

they believe they occupy in a given social situation. For Hafeez, his differential use of his smartphone is an outward expression of the understanding he seems to have of his role as an attentive and committed partner to his significant other. He, like many other participants, actively uses his mobile communication device in different ways, depending on the meanings he associates with his relationship in the broadest sense, and the communication challenges he face within it. This evidence reveals how people's social situations often dictate their use of the technology, and also shows how the very nature of the devices, both in their particular features and in their general mobility, influences how people decide to communicate in their committed relationships using them.

The final, and arguably most widespread, resolution introduced by the majority of participants in discussing the ways in which they have overcome challenges of communication in their relationships relates to the subtheme of 'adapting.' Interestingly the conversation surrounding the ability for and choice by many people to adapt or change within the context of their relationship had two particular trajectories. Some participants talked about the ways in which they have learned to adapt to their partner and their respective tendencies/ behavioral patterns in aiming to reduce communication-based conflict in their relationships.

Over our ten years, we've both grown with each other. It takes time, especially in a marriage that I hope is functional, to really learn the other person, get to know their operation, and learn to anticipate them and work your way of doing things around their way. I think that's been the most effective way we've solved problems, or gotten over big fights. (Alana, 38, Partner: Jayden, 41).

I know her so well now, I can just tell from her tone of voice, or the way she writes a text how she's feeling. She is a lot more regimented than I am, so I go with her flow. She'll never admit it, but sometimes I just have to say or do certain things a certain way to help her anxiety or anger, and we just work off of each other. (Joseph, 39, Partner: Donna, 38)

Other participants, instead, focused on the ways in which they have adapted to the technology, and more specifically changes in the technology, as a means of reducing communication-rooted issues in their relationship.

I remember when a text used to be limited to just 160 or 180 characters or whatever it was. So many misunderstandings would happen, even on the old messengers, MSN and ICQ and all of the originals, especially when acronyms were new and people were still learning what they meant. Alayna and I have seen each other through all of that, we've been together since before we even knew what a smartphone was. It's been an interesting road when you think about all the different phones we've had and all the new things we can and do now because of them. (Shamil, 31, Partner: Alayna, 30)

Jayden has always been a techy person. When we met, I didn't even have a cell phone and he thought that was ridiculous, a lot of our early fights had more to do with cell phones, or my lack thereof, than I would care to admit. But ultimately I learned to use it, and still am learning since there's always some new app or whatever the case. (Alana, 38, Partner: Jayden, 41)

These data cumulatively present a contrast between the ways in which people adapt to their partners because of the technology on one hand, and the ways in which people adapt to the technology because of their partners on the other hand. This converging evidence not only makes the debate between technical versus social determinist perspectives much more difficult to delineate, but also reflects the true complexity with which these two vectors operate in people's daily lives. Not only are mobile communication devices inherently connected to modern relationships, but they are in fact two inextricably linked processes that are continually operating in tandem in contemporary society. The introduction and incorporation of smartphones into committed relationships is thus not a passive process in which people indifferently operate, rather it is an active process that people mindfully engage in. They seem to do this for two distinct

purposes, as the above evidence indicates: first, to make more effective use of the technology; and second, to make themselves more effective as partners to their significant other.

The final, and perhaps most revealing way in which smartphones have come to affect the context in which people in modern committed relationships communicate with each other is by offering them completely unique and novel ways to engage in that communication. For example, many participants, especially those of older age cohorts, reflected on the possibilities that smartphones offer in terms of privacy of communication, particularly by comparison to earlier mediums.

No, things have certainly changed in the way we communicate. We don't even have a home phone anymore, which is sometimes nice because when you send out a call or text it's directly to one person instead of the whole house. You know that no one else is listening in on your call, and that it's just between us two. (Charlotte, 48, Partner: Alexander, 52)

This notion of privacy relates directly to the existence of networked individuals (Rainie and Wellman, 2012) as a reality of our social system. Smartphones have clearly become a mechanism of networked individualism that allows people to be both connect to and separate from their social networks, as desired. It is particularly interesting to consider this evidence in comparison to earlier contentions in the literature that claim that contemporary mobile devices first, have lead to a diminishment in the distinction between communication with one versus many, and second that they have lead to a loss in the sense of privacy (Baym, 2010). My data suggest that, in fact, smartphones have enabled people to more precisely target one-on-one communication with other networked individuals (Rainie and Wellman, 2012), and that this has lead to a greater feeling of privacy for many people.

Beyond the issue of privacy, many participants also introduced a notion I have here designated as 'reflexivity' into their discussion. Reflexivity, in the world of research, typically

denotes a cyclical process of examination between cause and effect, and it involves a systematic consideration of personal beliefs throughout the research cycle to reduce the impacts of researcher bias. Here, I have used the thematic category of ‘reflexivity’ to refer to the process that some participants described whereby they engaged in a cyclical process of consideration between the cause and effect of their communication content and processes with their significant other.

At the start I remember being much more conscious and conscientious of my messages to Anish. I would always wait some time before responding, never immediately you know. And all messages were very well thought out and planned. It helped with my anxiousness and nervousness about going on dates and getting to know someone. (Maya, 28, Partner: Anish, 28)

When we got together, we weren’t exactly living in the same neighborhood, so we would write out these long messages to each other in the early days. I would spend hours crafting them, reading them over, reading hers. It was a nice way to get to know someone, a more thoughtful way. I think if we had lived closer, it would have been a different relationship, like where you spend a bunch of time together doing things, but we really got to know things about each other. (Matthew, 24, Partner: Jessica, 24)

It could be argued that this datum speaks more largely to the idea that any text-based communication, whether it be a text message via smartphone, an email via desktop computer, or even a hand-written letter allows for this form of reflexivity. However, once again, the element of mobility that smartphones offer in maintaining, or even enhancing this process of reflexivity in an anytime-anywhere sense cannot be discounted. To some degree, this notion of reflexivity may be regarded as an element that positively contributes to the experiences of committed couples, and the interview excerpts from Maya and Matthew, above, both imply a relatively positive perspective on this ability that smartphones extend to them, each in a unique way. However, the implications this process of reflexivity might have on the construction of identity and presentation of self must be considered. The theoretical connection of these, and other similar

data, to works such as Goffman's Dramaturgical Model (1997) will be explored later, but the important outcome to note here is that smartphones are qualitatively changing how people in committed relationships communicate, what information they share about themselves, and ultimately, how they form the foundations of their commitment.

Another distinct area of focus in some interviews that contributed to the overall discussion of the unique communication abilities that smartphones offer in the context of committed relationships stemmed from the idea of collective communication.

When Nicholas and I were first getting to know each other, I swear every message I sent him was crafted by me and one of my friends, whoever I was with or could get a hold of first. I don't think that's unusual, I think a lot of people, women, maybe men too, people in general, everyone gets help from their friends when they really like someone and are just getting to know them. (Jasmine, 29, Partner: Nicholas, 33)

This latter excerpt from Jasmine raises several interesting broader lines of inquiry. What is notable is the emphasis on communal communication efforts based on convenience and accessibility to peer networks – two concepts that are directly associated with mobility and the devices that offer it. The reality of receiving a message from a potential relationship partner, while in the same room as a friend or group of friends who are readily available to provide input on the exchange, has the potential to impact the trajectory and development of that relationship, and it is an interactional pattern that people seem to be engaging in. Their ability to do so is directly related to the mobility of their respective communication device, and so it could be said that, to some degree, modern smartphones generate communication pathways and content that would not otherwise exist in many committed relationships. What is also interesting to note is that it seems that traditional forms of communication, like in-person communication, are now being coupled with forms of communication that are unique to the networked individual (Rainie and Wellman, 2012). While, on one hand a person can rely on traditional face-to-face interactions

with their friends to help them navigate their committed relationship, the only reason that is possible is because the people involved in that social situation are networked individuals (Rainie and Wellman, 2012) connected to their desired social network via their smartphones.

One interesting area of focus, that I was not expecting the data to reveal, relates to the ways in which boundaries between in-person communication and technologically-mediated communication have been blurred. I must emphasize that this datum does not represent, by any means, the majority of my participant pool, but it does raise some pertinent questions related to the demarcation of two previously separated forms of communication. Channels of communication like calling, emailing, texting, or communicating via other device-based applications, all of which have been discussed by various participants, rely exclusively on one particular form of transmission – calling relies on the transmission of people’s voices, emailing and texting rely on the transmission of people’s thoughts in writing, and other device-based applications either do more of the same, or add additional forms of transmission via media like photos and videos. Some participants, however, introduced the discussion of forms of communication like FaceTime and Skype which allow for the transmission of people’s communication via both people’s voices and their physical expressions. It could be argued that these types of communication resemble face-to-face interactions more than traditional forms of technology-mediated interactions. Some participants explored this idea.

When we can’t see each other in person, we will text or call sometimes during the day, but always make a point of FaceTiming before bed. Being able to see each other, even over the screen, makes such a big difference, especially when our schedules prevent us from being with each other as much as we’d like. (Jasmine, 29, Partner: Nicholas, 33)

Skype has basically been part of our relationship since the beginning. Being able to see each other and talk like we were in person is what helped us make it through our years at different schools. (Fayzal, 30, Partner: Saira, 30)

These findings in the data speak quite specifically to Rainie and Wellman's (2012) reaction to the notion of "digital dualism," or the idea that face-to-face interaction is 'real' interaction, while virtual ones are a defective and debased form of sociability. They vouch for the validity of virtual interaction by showing that the "personalized and mobile connectivity enhanced by the weakening of group boundaries have helped relationships move from place-to-place networks to individualized person-to-person networks. Most have private internet connections and personal mobile phones...such networks provide diversity, choice, and maneuverability" (Rainie and Wellman, 2012: 123). It seems that, with modern smartphones as component devices in most people's committed relationships, the distinction, or rather the need for a distinction between in-person versus technology-mediated communication, in a conceptual sense, is rapidly decreasing. While earlier research suggests that many people use their devices to "communicate when face-to-face interaction is not available" (Zaidi, Couture, and Tyndale, 2012, 175), I would instead make the claim that people now use their smartphones to communicate with their partners in ways that closely mimic in-person interaction, reducing the perception that face-to-face communication is the most powerful form. The data still seem to emphasize that face-to-face communication is preferred as the primary form of communication amongst committed couples, but the blurring of the boundaries between in-person and technology-mediated communication can be said to have lessened the effects of the absence of face-to-face communication for these couples.

Given the importance of communication in committed relationships, as well as the advancement of the technology that facilitates it, one clear outcome of the use of devices between committed partners is the maintenance of these relationships over time. The ability for the technology to bring people as close as possible to real, in-person interactions, regardless of

physical distance – a theme earlier discussed during the exploration of connection as one of the four Cs – is a feature that seems to not only encourage the ongoing use of the technology, but also appears to provide people with a greater sense of confidence in their respective relationships. The blurring of the boundary (Baym, 2010) between technology-mediated communication and in-person communication that has resulted from advancements in and accessibility to this growing technology represents an interesting, and possibly highly pertinent area of potential future research.

One unexpected area of discussion that emerged in some participant interviews was related to the termination of committed relationships, and the ways in which smartphones have contributed as a channel of communication to do so. Several participants, in their interviews, considered the ways in which smartphones have changed how people communicate the ending of relationships. There were those who reflected on the levels of social acceptance that surround these processes.

I think one negative thing about technology is how easy it makes it for people to become cowards. Like, I don't think it's okay to breakup with anyone over text. I guess the phone would be okay if it's like a short-term thing. But breakups should mostly be an in-person, respectful thing, the cell phones just make it too easy to do it other, less acceptable ways. (Seher, 22, Partner: Zaman, 25)

There were also participants who introduced the specific vocabulary associated with certain relationship-ending processes facilitated via smartphones. In particular, the terms “icing out” and “ghosting” were referred to during multiple interviews.

Well I guess I am a hypocrite, I'm guilty of icing people out too, but only in extreme cases. You just cut them off, even when they try to get you every which way; you stay cold on the returned messages and calls and hope you don't run into them in person. (Saira, 30, Partner: Fayzal, 30)

I've been iced out before, it's a terrible feeling, and I think it's all just a little too easy for people to ghost and behave in ways they normally wouldn't because they just ignore the text or call and forget all about it. I think we're still figuring out the rules on what's okay and what's not. (Robert, 27, Partner, Lisa, 27)

It might be argued that the same processes of 'icing out' and 'ghosting' were possible and practiced during the era of the home phone and home computer, however, what seems to be emphasized in each interview excerpt is the idea that icing out/ghosting is more than just ignoring someone's call or messages by virtue of possibly not having yet seen them. Rather it is a total and complete closing off of any and all forms of previously open channels of communication – usually multiple in nature, without any warning or explanation, and undeniably directed at a single person's device. It seems that, since people are aware of the ubiquity of the technology, the perceptions and meaning they associate with the actions of others in regard to it, have changed.

Of the four Cs that comprise my proposed theoretical model, communication represents the theme with the greatest breadth of participant input, and is a logical progression from the initial discussion of connection as the first of the four elements. Cumulatively, it is clear that smartphones are affecting the way people first, connect to each other, and second the way they then communicate with each other in expressing forms of intimacy, passion, and commitment (Sternberg, 1986) in their loving relationships.

3.3.3 Control

In talking with participants of this study, one of the most illuminating observations I was able to derive from exploring people's relationships with their devices is the fact that they seem to feel that their smartphones give them a sense of control over their lives. Amil rather definitively stated, "it is more than just a cell phone, it's basically like a remote control for your

life” (Amil, 31, Partner: Layla, 28). Interestingly, this concept of control, as one element of the four Cs, in fact, has a variety of more complex manifestations when considering the role of modern smartphone technology in the context of people’s committed relationships. Specifically, it seems that people’s smartphones are allowing them to achieve a perceived sense of control in their relationships over: 1) their connections; 2) the presentation of their self; 3) device use and integration; and 4) device-based networks and communication.

Earlier, in section 3.3.1, on connection, I discussed the ways in which smartphones are a tool that people use for partner selection/dating, particularly by way of using them to find partners whose goals are similar, and by way of applying restrictive and organizational practices during the selection process. While I theoretically associated these data with forms of connection, these two instances also perfectly epitomize the concept of control, specifically over the connections that people make.

Another, highly illuminating insight through which participants demonstrated the way they achieve control over their potential relationship connections using their smartphones, relates specifically to the demographic features of culture, ethnicity, and religion introduced by a particularly distinct subset of participants in my sample. This is one specific area that I strongly believe offers a highly valid and significant area for future research, the applications of which I will later explore.

First, however, I need to preface my discussion with an acknowledgement of the limitations of my sampling techniques. Just as my sample was skewed in terms of representation of age, the representation of varying cultures, ethnicities, and religions was also skewed. While I did not explicitly delve into these categories with the questions in my semi-structured interview guide, the skewed nature of my snowball sample emerged in my pre-interview survey (Appendix C). The survey asked participants to identify their cultural background. Interestingly, to this

question, some participants identified their country of origin by including response like “Canadian” or “Pakistani;” some participants, alternatively, stated the ethnicity with which they most identify, with responses like “Arab” or “South Asian;” and finally, other participants, instead, identified their religious background with responses like “Jewish” or “Muslim.” Almost 40% of my total sample population identified themselves in this latter religious category of being Muslim, and as I earlier alluded, this was a direct byproduct of convenience and snowball sampling techniques that resulted in a skewed overall sample population for this study.

To be clear, I am aware that there are many different kinds of Islamic beliefs. For some participants who self-identified as Muslim, their total suite of responses to my interview guide emphasized an experience of their committed relationship, and of using their smartphones within the context of their committed relationship to form connections, that was similar to the experience of participants from various other cultural/ethnic/religious backgrounds. However, for other Muslim participants, a small subset of data emerged that echoed an entirely different experience. It is impossible for me to categorically identify this group with a specific label, as the focus of my study was not to delve into the particulars of people’s religious or cultural beliefs. What I can say, is that the collective data derived from interviews with these participants emphasized a much more regimented approach to committed relationships, and therefore to using smartphone technology to form connections within them. Notable themes that emerged were most consistently tied to concepts of freedom and privacy.

So, with our religious beliefs, we aren’t really allowed to date in the traditional western sense of the word. There are many other restrictions I guess you could say around the whole process. And not just restrictions, but almost like a protocol. You know where certain things have to happen in a certain order for everything to be religiously okay, with the families and all that. So at first, when we were just getting to know each other, I swear the phone was basically the way we fell in love and decided we wanted to marry each other. Talking on

the phone, texting, or facetimeing, all seem like such small things, and for couples that can openly go on dates, they might be. For us though, it was everything. It's just not okay in our culture to go on dates the way Canadian people do, we basically have to already be promised to each other, in our family's eyes before it is okay for us to go out and get to know each other. It isn't quite arranged marriage, but honestly, without having our phones, all of our early interactions would have had to have been in front of a chaperone or whatever. The phone just gave us so much more freedom to actually develop our relationship privately and more genuinely without as much forced input from everyone else. (Layla, 28, Partner: Amil, 31)

This finding further supports data from existing research. Zaidi, Couture, and Tyndale (2012) found that, among South Asian Youth, computer-mediated communication is used to “initiate and build relationships, remain connected with partners, engage in discreet communication, to ease uncomfortable and intimate discussions, and to communicate when face-to-face interaction is not available” (175). Clearly, for some cultural/religious/ethnic groups, modern smartphone technology offers great possibilities in terms of controlling their relationship connections and communication within the boundaries of their personal beliefs. Just as Layla alluded to in her interview, smartphones have become a means of “adhering to norms of gender-separation while covertly engaging in cross-gender relationships...allowing for maintenance of family honor within the South Asian community while fulfilling their perceived need for cross-gender friendships and romantic involvements” (Zaidi, Couture, and Tyndale: 2012, 175). This finding indicates the extent to which people are now operating as networked individuals (Rainie and Wellman, 2012), and how smartphones have become a tool of that networked individualism, particularly for cultural groups in which emphasis on family/community involvement may be greater than when compared to others.

Control, as one of the four Cs, is not limited to just control over connections, however. Much of the participant data revealed interesting insights into the ways in which people's

smartphones give them a perceived sense of control over their presentation of self in the context of their committed relationships. Interestingly, and in expanding on data earlier presented, some participants discussed how their smartphones helped them to establish an initial foundation for their committed relationship that was built on a particular presentation of their own identities. Here, I have grouped these responses under the thematic subcategory of ‘constructing a front.’

It’s just one of those things that people do when they are first getting to know a potential partner. We tend to show off the best parts of ourselves, downplay the not-so-great aspects, maybe even exaggerate our likes or past experiences to really sell ourselves. I remember when Alayna and I were first talking, she definitely made it seem like her interest in baseball was a little more than it really was. It’s my favorite sport. We went to and watched a ton of games together in the first few months, and the ones we couldn’t, we would end up talking on the phone for the entire game or text each other after to break it down. She’s still into it, but it was months in that she finally admitted to me that she really only got into it because of me. (Shamil, 31, Partner: Alayna, 30)

The conceptual category of ‘constructing a front’ that I have applied to examples of this kind of comment in my data set speaks more broadly to Goffman’s (1997) original theoretical construct as the first of the seven performance dynamics identified through his Dramaturgical Model. What is most intriguing about this theoretical connection to my data, in particular as it relates to the above interview excerpt from Shamil, is that people seem to be aware of their tendency to construct fronts during their interactions with others, specifically their significant others, and, furthermore, they seem to be aware of their smartphones as a tool of control that helps them to do it.

Beyond people’s use of smartphones to control the presentation of themselves in committed relationships, evidence from the data reveals that they are also engaged in processes of control in terms of how the devices are used and integrated into the interactional patterns of the relationships. It is interesting to note that, though smartphones are generally believed to be

mediums of technology designed for individual appropriation, some of my findings show that, in the context of committed relationships, control over their use and integration is often negotiated between partners. Some participants talked about the quantity of smartphone use that their partner typically engages in, by way of reflecting on how the pattern fits in with their relationship expectations.

I tell him all the time that I think he uses his phone way too much, especially when it's interfering with our conversations with each other. But he has this huge group of friends that have stayed close since high school, and it's like he needs to learn to be more in the present moment. I've told him before that I feel like sometimes he misses out on things because he's on his phone more than he probably should be. (Yuan, 19, Partner; Markus, 20)

Alternatively, other participants focused more on the ways in which their own patterns of smartphone use fit with their understanding of the expectations of their relationship.

I know Anish gets really annoyed with me because I have a habit of keeping my phone ringer off. I miss his calls all the time, but I do try to get back to him right away. I just, myself, get overwhelmed with calls and messages throughout the day, so I just let it stay quiet and I get to responding when I can. I feel bad sometimes because it's like there have been times he's wanted or really needed to talk to me and I've missed his message or something, but I'm getting better at checking it and replying quickly. (Maya, 28, Partner: Anish, 28)

Earlier, I reviewed a 2007 study by Spagnolli and Gamberini, in which their research revealed that with text messaging, “exchanges frequently lack openings and closures, show an effort towards reciprocation, use implicit or anticipated actions...and that social presence seems characterized by a sense of constant availability, symmetric commitment and shared understanding” (2007: 343). Here, I would argue that these features are characteristic of smartphone communication more generally, with all the methods of contact that they encompass, and more importantly, people's awareness of that variety.

One of the most interesting mechanisms of this concept of control, as described in my participants' interviews, is the process of surveillance. For our purposes, surveillance refers to the close observation or scrutiny of an individual's device and/or device use, in this case, by his or her significant other. Based on the data collected, I must create a broad distinction between two forms of surveillance – open and closed – that seem to be tied to structures and processes of power in the committed relationships observed. In some interviews, there was a focus on “open surveillance.”

Yeah, we don't have anything to hide from each other, so if his phone is closer, I'll use it, or listen to his music, occasionally I'll just do a quick scroll through his messages, see what's up. But I'll do it in front of him, not behind his back. There are times I'll even message my mom or one of my friends from his phone, I'll let them know it's me obviously, but if it's just easier to use his phone for whatever reason, it's no biggie. It's more like we both share both phones, instead of one phone being his and one phone being mine. (Donna, 38, Partner: Joseph, 39)

Conversely, in other interviews, there were participants who described approaches to control that I call “closed surveillance.”

When we first starting going strong, I think I was so desensitized from my previous experiences with men, I let my insecurities get the better of me. I have been guilty of checking Albert's phone a few times on the sly, especially initially. I was terrified of being hurt again, and he just seemed too good to be true. There were days that I was sure he must be hiding some huge flaw, or that he might be cheating on me, but eventually I learned to accept and have faith in us, and I don't really feel the need to look into his phone anymore. (Cecilia, 31, Partner: Albert, 31).

Depending on the people involved, their backgrounds and beliefs, and relationship dynamic, “people are subject to others' control,” especially when considering the constructed meanings that form the framework with which they approach their relationship interactions (Swidler, 2001: 167), in this case, through the technology. Interestingly, cases such as Cecilia's

point to a highly relevant trend underscoring many aspects of my data set – the fact that patterns in an individual’s smartphone behavior, change based on the state and status of their committed relationship. As far as my research questions go, I believe this is concrete evidence of the fact that the two realms of people’s lives – their relationships on one hand, and their interactions with smartphones on the other – do not exist independently of each other; rather, they are mutually impacting processes. As well, this particular subset of data emphasizes the social determinist perspective in the debate with technical determinism (Ling, 2004), as it highlights the ways in which patterns within people’s social lives, in this case, within their committed relationships, affect their use of the technology.

Above and beyond the forms of control that smartphone surveillance takes in committed relationships, it also seems to manifest with different goals, depending on the context. Some participants talked about practicing surveillance of their partner’s quantity of device use.

Thomas gets a little obsessive sometimes. The kids make fun of him saying he has OCD since he has to constantly be on top of you know the updates, the emails, the whatever. I hate when he brings his phone out in front of other people. I’ll just give him my signature mean look and he knows that if he doesn’t put it away he’ll be getting an earful later. I think sometimes he gets a little excited to be part of the technology and all that. (Karen, 41, Partner: Thomas, 42)

Somewhat unexpectedly, surveillance of device use did not solely imply the desire to make less use of the technology. In one case, there was discussion about applying surveillance techniques in attempting to compel their partner to make more use of the technology.

Candace has only gotten on the bandwagon more recently, it’s been less than a year that she’s had an iPhone. She’s learned it pretty well, and she’ll send me the odd text if she needs something, but I keep trying to get her to see its full potential. I don’t think she has fully realized how helpful and useful the iPhone with all the apps can be. Lately I’ve been downloading recipe and cooking apps for her, she loves to look up new stuff on the desktop, but she hasn’t really come

around to doing it all on the phone just yet. (Ronald, 55, Partner: Candace, 51)

Finally, some participants also expressed the perceived need to control boundaries of smartphone use in the context of their committed relationship as they relate to other ‘significant others’ that people have in their lives. Several people talked about the role that relationships with friends, family, and even ex-relationship partners have in either their own or their partner’s boundaries of smartphone use.

I grew up being really close to my immediate and extended family, I still live at home with my parents, but Zaman doesn’t really have the same dynamic with his family. First of all, his family is so much smaller than mine, while I have like my parents, my siblings, my aunts and uncles, cousins, grandparents, everyone, he basically only has his mom, who he really doesn’t talk with all that much, and one second cousin that I’ve met a few times, but Zaman is not really that close to him either. So a lot of the time, I have a lot more expectations on me to make time for all my family members, which he doesn’t quite understand, obviously I think because he doesn’t have the same situation in his life. We are working on it, but it’s hard to make everyone happy when everyone in your life wants different things from you. (Seher 22, Partner: Zaman, 25)

Oh yeah, Yuan hates it that I spend so much time on my phone messaging my friends or whatever. She takes it really personally when I get a little preoccupied with it, but it really isn’t about offending her, it’s not like I do it on purpose. My relationship with them is separate from my relationship with her, we don’t really see things the same way when it comes to that. (Markus, 20, Partner: Yuan, 19)

While it is true that people’s smartphones give them a channel through which they can operate as networked individuals (Rainie and Wellman, 2012), these data reveal that committed relationships are one social arena in which people must negotiate and manage their activities in the networked operating system (Rainie and Wellman, 2012). This finding in my data emphasizes the fact that people actively develop “rules regarding relational issues and contact with others”

(Miller-Ott, Kelly, and Duran, 2012: 17), and is another example of a way in which social concerns influence use of the technology (Ling, 2004).

On various levels, control, as a process related to people's smartphones, and one of the four Cs in my proposed theoretical model, exerts a tangible influence on people's relationships by way of directly impacting their choices, beliefs, and behaviors. If the kind of love people experience in their relationships is determined by the forms of intimacy, passion, and commitment (Sternberg, 1986) they experience with their partners, then the processes of control surrounding the use and integration of smartphones into their relationships must be considered a relevant factor.

3.3.4 Constancy

In the explanation of my proposed theoretical model, I will delve into some detail about the importance of mobility as an all-encompassing context within which all relationship interactions are now occurring because of smartphones. One of the greatest byproducts of this aspect of mobility relates to the sense of constancy that smartphones have in people's lives, and thus in people's relationships. Constancy, as the fourth and final C, has significant and complex implications for contemporary relationships, based on the data from my interviews. In particular, the constancy that smartphones introduce into in people's relationships allows them to 1) establish roles over time; 2) develop relationship stability; and 3) preserve a relationship record.

The roles people have in their particular relationships, and in society more generally, stem from a variety of sources, some that are private and personal, and some that are public and shared. One such source that has both private/personal implications as well as public/shared implications, is the constant presence of smartphones as a device that mediates peoples' relationship interactions. As Baumeister (1986) emphasizes, elements that remain continuous in people's lives,

make a stronger contribution to their identity. In discussing the role of smartphone technology in processes of role recognition and identity construction, some participants highlighted perceived distinctions in their own and their partner's innate personality traits.

I've always been a little more in touch with my emotions, and he's always been the slightly more logical one. You can see it even if you just look at our text history from last week alone. We're in the process of moving into a new place, and all of our texts are basically either me messaging him to freak out about something – the painters, the movers, packing or him messaging me back to calm me down and help me work through it. (Jasmine, 29, Partner: Nicholas, 33)

I think the first time I realized how different we were was when we had our first fight. I'm more extroverted, I was all about not wanting to get off the phone, I wanted to work it out, talk about it until I felt better. He is the total opposite, he is more introverted, he likes to let things ride out. (Zeanna, 30, Partner: Akeel, 33)

Some participants even alluded to the fact that the constancy with which they and their partners communicate via their smartphones contributes to their feelings of “completeness.”

In my first marriage, and even in relationships before that, my concern had always been on what my partner thought, wanted, what he felt, especially about me. I don't think I ever really saw myself as a whole person on my own, with my own needs and wants until Jayden. With Jayden, we just complement each other so well. Like, he calls me just to check in as much as I call him just to check in. It's about both of us being whole individuals with equally important needs. (Alana, 38, Partner: Jayden, 41)

In addition to feeling more complete in their own identities as a result of constant patterns of smartphone behavior with their partner, many participants also described the experience of learning to be true to their inner selves via constancy in practices of technology use in their relationship.

My two previous relationships were border-line abusive, for lack of a more accurate word. Both of my exes really tried to control me by keeping tabs on me all the time, calling and

texting me constantly, and it really took a toll on my self-esteem. I felt like I was always trying to please them. This relationship was the first time I felt like I could just be myself. Albert gave me my space, we're together when we want, apart when we want, call each other when we want. We don't have any grand expectations of each other, no one has to call or text anyone right away or anything like that. (Cecilia, 31, Partner: Albert, 31)

When considering the existing research on identity and the processes people engage in to make sense of their identities, one common trend in the literature is a perspective that takes a relatively problematic view of successful identity construction in modern society. I earlier discussed some of these ideas in some detail, specifically, for example, through the examination of Baumeister's (1986) delineation of identity crises. I think it is important to note that, though there seems to be a widespread belief that identity, and its construction, have become problematic in western societies, many people seem to be experiencing positive contributions to identity construction within their committed relationships as a result of the affordances (Ling, 2004) of modern mobile communication devices. While establishing identity components that provide continuity over time may be a challenge for people in so many other facets of their lives, it seems that technology, in the form of their smartphones, is a much more constant and accessible medium for identity development.

In addition to helping people in committed relationships establish distinct roles, the constancy of smartphones in people's lives also seems to offer them a sense of stability in their relationships. Through my discussions with participants, there were many indications of the added stability they feel, for example, with regard to functioning as a member of their family units.

My wife and I share a calendar app on our phones that basically lets us keep track of all of the extra-curriculars and appointments that the kids have. The story about why we started using it in the first place – let's just say a

miscommunication on who was meant to pick up our youngest after her club's meeting at school. The app helps us to stay organized since everyone in the family has a different schedule these days. (Thomas, 42, Partner: Karen, 41)

This subtheme of relationship stability that can be categorically grouped with data relating to the constancy of smartphones in people's relationships also revealed data related to the development of specific relationship routines.

With Sook, we are always talking in some way throughout the day. In the morning we usually text each other or send a message on Whatsapp, and we try to squeeze in a phone call around lunchtime during the weekdays. Then before bed, we usually FaceTime. (Rachel, 22, Partner: Sook, 23)

We totally have a routine. She always is up before me, so without fail, I wakeup to a text from her basically every morning, I usually respond to it first thing. Then I'll go about my day and she'll shoot me a text when she's taking a break from doing work. I'll text or call her when I get home in the evening, and then whoever goes to bed first will make the last call of the day. It's kind of funny how regimented it's become. (Fayzal, 30, Partner: Saira, 30)

While stable romantic relationships and patterns of communication clearly predate the adoption of smartphones, they were limited by several boundaries that seem to be no longer relevant. Both Rachel and Fayzal's interview excerpts emphasize the constancy with which patterns of communication are created and maintained with partners, by virtue of what the technology affords. As previous data indicate, many of these patterns only occur as a result of the constant availability, and perhaps even more importantly, the constant mobility of the devices. Without the constancy of smartphones, relationship partners would have no other way of communicating as frequently, consistently, and privately in order to develop these patterned conventions. Furthermore, without smartphones, the diversity of communication methods would also be significantly more constrained. Both Rachel and Fayzal discuss, to varying degrees, their respective relationship's reliance on a wide diversity of communication methods, all facilitated

by their smartphones. These methods themselves, in combination with the mobility that smartphones offer, create qualitatively different interactions between relationship partners that would not otherwise exist. Rather than modern “media, including e-mail, instant messaging, text messaging, mobile phones [simply] supplementing the flow of information” (Van Cleemput, 2010: 75), they have become a foundational channel for constant communication between relationship partners.

In discussing the theme of control, one of the central points explored was the smartphone surveillance that occurs in committed relationships. At the opposite end of the spectrum, in stark contrast to processes of surveillance, many participants talked about levels of privacy that have developed through a feeling of trust in their relationships, which is constantly expressed by their use of their smartphones

Not really, we’ve always had a pretty trusting relationship. We’ve both been honest from the beginning with each other, we just don’t lie. Not about anything serious anyway. And so I think that’s why neither of us have really ever felt the need to check each other’s phones. (Tina, 33, Partner: Terrance, 31)

We’re at a point in our marriage where we don’t concern ourselves with the nonsense. We’ve seen a lot of our friends get divorced, many of them because of actual issues like infidelity, and you’d be surprised how many of them came from a simple lack of respect, or honesty, or trust in the relationship. We are on solid ground, and when people start doing things like checking in on each other and invading privacy, then things start to go south. (Stewart, 50, Partner: Amy, 44)

These data emphasize some important connections to the existing literature. First, as earlier research suggests, factors other than the concept of love often play a greater role in how people perceive the quality and longevity of their relationships (Estrada, 2009). According to my data, it seems that trust is one of those alternative factors that couples identify as “being the ‘key’

to their enduring relationship” (Estrada, 2009: 2). Second, in a more theoretically abstract sense, it seems that people associate relationship health or positivity, more generally, with behaviors and actions that they construct as trusting/trustful in their relationships (Berger and Luckmann, 1966).

Perhaps the most interesting way that the constancy provided by smartphones has come to shape committed relationships is by offering couples a source of what I refer to as “relationship memory.” Only a few participants mentioned this, but it did arise as an intriguing point of discussion in some interviews. The concept, “relationship memory” refers to the ability of smartphones, with their personalized, mobile, and constant nature, to retain a historical record of a relationship from its inception. Of course, exceptions to this include relationships that began before the advent and/or adoption of the technology, and any circumstance in which content was lost from a device in isolation, or in the transfer from one device to another. The idea that every text message, every photo, every vacation, every text-based compliment or argument, every social media post, every shared life event, not to mention every life event in general, is documented for a couple is astounding, and people do feel a sense of marvel when reflecting on it.

The other day, don’t even ask me how, I think I was just looking for a photo Anish sent me of someone’s address, and I ended up going back through all of our shared photos since we met. It was like thousands of things we had sent to each other over the course of our relationship, it was amazing to see, the good, the bad, even the ugly! (Maya, 28, Partner: Anish, 28)

Nicholas and I were at the cottage last summer, and we were trying to find this little breakfast place his parents had taken us to the summer before. Country roads are confusing though, and even with directions from his mom, we found ourselves in the middle of nowhere, road and trees in all directions. I don’t know how I thought of the idea, but I looked up photos we had taken at the place the year before on my iPhone. When you take pictures on the iPhone, it automatically creates a geolink to where the photo was taken on a map. So I

just looked up the old photo, linked it to the GPS on the phone, and we were there in no time, it was incredible!
(Jasmine, 29, Partner: Nicholas, 33)

Smartphones have a way of cataloguing our lives in a way that no other previous technology has done before. The elements of shared history between couples constitute just one aspect, with many deeper levels, to be considered. When widening the scope to bring in the full range of capabilities that smartphones offer, in terms of personalized, individual data and constant connectivity to the internet, the implications are limitless. On a theoretical level, it is interesting to note a few important parallels with Berger and Luckmann's (1966) analysis of the social construction of reality. In the same way that society is a human product that then progresses to become an objective reality through legitimation processes, before coming full circle to producing humans as social products (Berger and Luckmann, 1966), committed relationships are also human products that become objective realities through the legitimation provided by the relationship memory encompassed within people's smartphones. I am not claiming that people's relationships would not exist without smartphones and their cataloging of people's lives, however, based on my data, I am claiming that they legitimize the experiences people have with their partners by way of creating a pseudo-institutional memory of those experiences that can be relived through the devices anytime, anywhere, theoretically, forever.

I have assembled the final subtheme in this section to explore the ways in which people's experiences with committed relationships and smartphone use can be connected, although, to clarify, all the data presented until now also speak to this goal through the exploration of various other thematic categories. My intent in organizing this discussion is to address two core questions at the root of my study: can growth in a committed relationship and growth in use of the technology be associated, and, beyond that, can satisfaction in a committed relationship and satisfaction with the use of the technology be associated? To clarify once more, much of the

evidence presented thus far undoubtedly contributes to the delineation of these two inquiries; however, here, I will present further qualitative data that I believe directly address them, and that provide concrete proof of the seemingly inextricable link between modern mobile communication devices and modern committed relationships.

To develop the context for this discussion, it must first be emphasized that constancy, as one of the four Cs that form the foundation of my proposed theoretical model, applies as a concept to both the pervasiveness of smartphones in people's lives, and the existence of people's committed relationships. On one hand, people's devices have a constant role in their lives and in their relationships, and, on the other hand, people's committed relationships, by virtue of their 'committedness,' are also characterized by a sense of constancy. Therefore, it is important and necessary to acknowledge that people's smartphones and their relationships are two vectors in their daily lives that remain constant over time. Now, keeping this reality in mind, the associations between first, growth in people's committed relationships and growth in their use of the technology, and second, satisfaction in people's committed relationships and satisfaction with their use of the technology, can be evaluated.

In terms of growth in committed relationships, we can return to Sternberg's Triangular Theory of Love (1986). Relationship growth, according to this theory refers to progression in one (or more) of the three foundational elements of love: 1) **intimacy**, which "encompasses the feelings of closeness, connectedness, and bondedness one experiences in loving relationships;" 2) **passion**, which "encompasses the drives that lead to romance, physical attraction, and sexual consummation;" and 3) **decision/commitment**, which "encompasses, in the short term, the decision that one loves another, and in the long term, the commitment to maintain that love" (Sternberg, 1986: 119). Here, I have collected three particular interview excerpts, each of which

demonstrates an association between the growth in smartphone use and growth in each of these three elements of love.

Intimacy:

The stages of our lives that we are both at, just getting ourselves started professionally, we have a lot of things on the go. I think we both want to accomplish certain things in our lives individually before you know we take any next steps like getting married. If our phones weren't part of the equation, I really don't know how we would be able to stay so connected to each other, on a technological level yeah, but on an emotional, mental level more importantly. Going to different universities especially, I know so many people who couldn't cut the long distance thing, and sometimes I feel gratefully surprised that we were able to. I really think us being able to keep in touch through our phones is what helped us become close enough to realize we have something special, worth holding on to. And now that we're years in we still find new ways to keep things fresh and maintain that same closeness. (Fayzal, 30, Partner: Saira, 30)

Passion:

You know, a bunch of suggestive emojis, or I'll send him a just-for-his-eyes-picture when my makeups all done up for a night out with the girls or whatever, just try to keep things 'spicy' for lack of a better word. It took me some time for me to reach that point in our relationship where I felt open enough to do that. It's a bit ironic when you think about it, that people, well for myself anyway, I would almost be more willing to open up to someone in person than over technology because with the phone there's that whole un-erasable, can't-take-it-back thing. Obviously, I've heard all the cautionary tales of couples sending each other illicit pics and then they breakup and the guy like posts them on Reddit or something, and Shamil is pretty much the only man I have ever and would ever trust that much. (Alayna, 30, Partner: Shamil, 31)

Decision/Commitment:

One of the greatest, funniest memories I have of our relationship is actually when Taye asked me to be his girlfriend. He told me after the fact that he had been trying

for weeks to plan a special surprise for me, he is so thoughtful by nature, and what he ended up doing was so funny and random, we laugh about it all the time. He somehow found a way to get alone with my phone, probably when I was showering or something, and he changed his contact information in my address book so that the next time he called me while we were apart, the caller ID came up on my screen saying ‘will you be my girlfriend,’ and I had to either accept or decline the incoming call, like accept or decline his question you know? Of course I answered, accepted, right away, and we laughed about it. I knew then, like so many other moments in our relationship that he is the guy for me, and that I would never want to be with anyone else. (Stacy, 32, Partner: Taye, 33)

In many ways, these data show that constancy, as a characteristic feature of both people’s smartphone use and committed relationships, does not exist independently of each other. While the qualitative data I have gathered speak to the strong connection between growth in committed relationships and technology use, what remains to be explored is whether satisfaction is a further outcome of this link. The data I have collected, while they cover a wide variety of subjects, also contribute to the larger exploration of satisfaction people experience as a byproduct of constantly using their smartphones to communicate in committed relationships.

Satisfaction relates to concepts such as pleasure, fulfillment, enjoyment, and general happiness, and several of the probe questions that emerged during the interviews were rooted in this idea. For example, to varying participants, I posed inquiries asking about whether they experienced a sense of fulfillment in their relationship first, with their smartphones second, and finally as a result of using their devices for relationship communication. Every participant asked, responded positively in regards to experiencing fulfillment in their relationship.

Definitely. We wouldn’t be together otherwise, I’ve learned from my past experiences, and over your life you just learn that you don’t want to waste time being with someone who doesn’t make you feel that fulfillment, the same goes for a job or friends. I’m not saying it’s all good all the time, like

any couple we have ups and downs, but I feel grateful to have found someone that fits. (Cecilia, 31, Partner: Albert, 31)

In terms of satisfaction with their devices as an independent measure, most of the participants I spoke with responded positively as well, though there were some that alluded to aspects they were dissatisfied with.

I really like my iPhone, and I guess I've not thought too much about whether I feel fulfilled by it necessarily, but as far as the role that technology plays in my life day-to-day, I guess yeah I do feel fulfilled by it. (Sook, 23, Partner: Rachel, 22)

I guess, I mean there are always qualities I imagine could be and likely will be improved in future versions of the technology. I could nitpick over small imperfections, bugs, or whatever, but in general, I like my phone, I feel content with what it does for me. (Alexander, 52, Partner: Charlotte, 48)

Finally, perhaps the most seemingly difficult question for participants to answer was whether they feel a sense of fulfillment as a result of using their devices as a constant medium of communication within their committed relationships. Many participants took pause in attempting to fully grasp this question, as it necessitated them to first, recognize, acknowledge and understand the extent of involvement of their smartphones within their relationships, and second, to then engage in some form of subjective evaluation of whether that involvement brings them satisfaction. While some responses did not generate data that were immediately relevant to this point, others did. The vast majority of participant responses painted a more positive than negative picture, indicating that relationship satisfaction and satisfaction in the technology might be related. This corroborates findings in the earlier literature that claims, "satisfaction with cell phone usage and the relationship are strongly and positively correlated" (Miller-Ott, Kelly, and Duran, 2012: 17). Though the literature and my data both present a distinctly positive relationship,

one interesting trend in this subset of data, and in the data set more generally, is an ongoing sense of ambiguity in participant tone, as Matthew, Riaz, and Alana emphasize.

That's a strange thing to think about. I mean I guess, when I try to imagine what our relationship would be like without our smartphones, I think things would be a lot more difficult, more effort would be required on everyone's part in some senses, but then again in a lot of ways modern technology is guilty of complicating relationships too. It's a double-edged sword. If I had to pick a side, assuming that the technology exists as it is no matter what, I would choose to have it as part of my relationship rather than not. (Matthew, 24, Partner: Jessica, 24)

Yes, I mean when all is functioning well, and I don't just mean the phone, I mean the people involved too, when all is functioning well, I think that having smartphones to facilitate communication between partners can surely be a great asset to a relationship that can bring a great deal of fulfillment, and for us, I think it has. But, on the flip side, when things are not functioning so well, think like a glitch in the technology, a fight in the relationship, or anything, then there are pitfalls that get in the way of that fulfillment, and we've experienced that too, probably to a lesser degree, but it's all part and parcel. (Riaz, 26, Partner: Sophia, 23)

If, or maybe the better word is when two partners have good communication to begin with, then the phone becomes a tool of that, and similarly when they have bad patterns of communication, then the phone becomes a magnifying glass that allows those patterns to get worse. Technology in general is that way though, dependent on the people using it. For us, that's true too. There have been times I've recognized the value of having the technology we do in our relationship, and times when I wished it wasn't even there. (Alana, 38, Partner: Jayden, 41)

There are a few key components to point out in these data. Matthew regards his smartphone and its place in his relationships as a "double-edged sword;" for Riaz, his device seem to echo the state of the relationship; and for Alana, smartphones have the ability to either strengthen positive communicative patterns or exacerbate negative ones. The first element to note is the fact that all three participants, among other examples of similar data did not regard their

smartphones as entirely negative, nor entirely positive constants in their lives. They all emphasized the fact that there are good aspects as well as bad aspects. Second, it is also necessary to note that, what aspects a person regards as positive versus negative, are entirely dependent on the particular individual and the specific relationship partner they have. Evidence of this subjectivity is summarized and discussed in earlier analytical sections, for example, in the discussion on frequency and methods of communication. So, while the specific elements may vary from relationship to relationship, what remains constant is the sense of ambiguity that people feel about the place of smartphones in their lives generally, and in their relationships more specifically.

3.3.5 An Updated Framework Linking Smartphone Technology and Committed Relationships

To begin delineating my proposed theoretical framework, let us first begin with the existing theoretical model that has helped form the foundations of it, and this study more broadly. Figure 1 (below) depicts Sternberg's Triangular Theory of Love (1986) by showing the three foundational elements of 1) intimacy; 2) passion; and 3) commitment. As has already been discussed at length during various parts of my earlier analysis, the way these three elements interact with each other in a couple's relationship dictates the type and amount of love that exists between them.

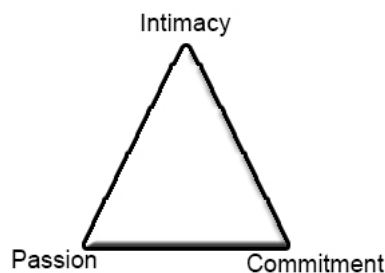


Figure 1: Sternberg's Original Triangular Theory of Love (1986)

Using Sternberg's Triangle (1986) and the three elements of love that comprise it as a starting point, I can now begin to bridge the theoretical ideas that have emerged as a result of my data analysis. First and foremost, what must be acknowledged is the context in which the elements of Sternberg's Triangle (1986) operate. Figure 2 (below) very simply frames Sternberg's Triangular Theory of Love (1986) within the conceptual border of the *socially constructed* (Berger and Luckmann, 1966) world in which it exists.

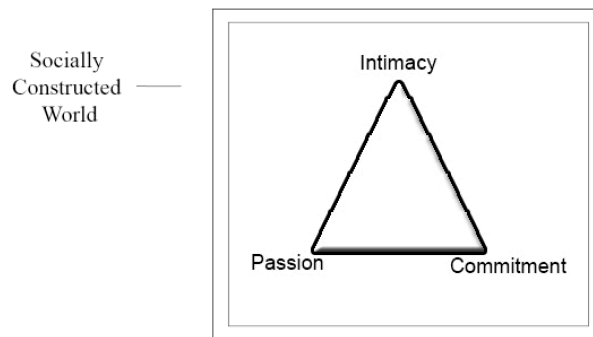


Figure 2: Sternberg's Triangle of Love (1986) in the Socially Constructed (Berger and Luckmann, 1966) World

As the data show, *networked individuals* (Rainie and Wellman, 2012) operate in this *socially constructed* (Berger and Luckmann, 1966) world, and one of the reasons why they are able to, is because of the *domestication* (Ling, 2004) of modern mobile communication devices that offer people specific social *affordances* (Ling, 2004). Given the regularity, and arguably the excess, with which people use their smartphones in daily life, as my data analysis and discussion reveals, Figure 3 (below) depicts Sternberg's relationship triangle (1986) against the backdrop of mobility as one of the greatest *affordances* (Ling, 2004) that the technology uniquely offers people. People can and do enact beliefs, behaviors, and patterns of interpersonal action to express their levels of intimacy, passion, and commitment for their respective relationships (Sternberg,

1986) via the use of their smartphones. Smartphones, and the mobility they offer in terms of the virtually limitless number of features they encompass, have altered the context within which people participate in their committed relationships.

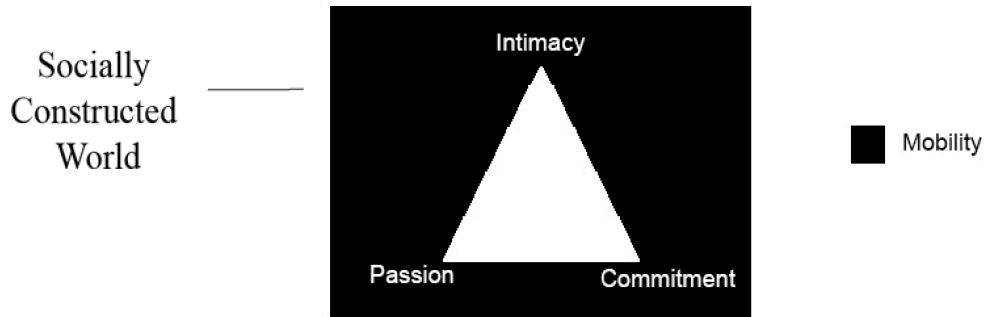


Figure 3: Sternberg's Triangular Theory of Love (1986) in the Context of Mobility

Finally, as the bulk of my data analysis and discussion have shown, there are four fundamental abilities that have resulted from the *affordance* (Ling, 2004) of mobility that smartphones allow. These abilities are encapsulated by my proposition of the theoretical ideas that constitute the four Cs, which are: 1) connection; 2) communication; 3) control; and 4) constancy. By *constantly* giving people new avenues to develop *connections*, new methods of *communication*, and new forms of *control*, smartphones allow people to do things like present and interpret information about their own and others' *identities* (Baumeister, 1986). Furthermore, these social processes that are uniquely facilitated by smartphone technology, can be understood through frameworks like the *dramaturgical model* (Goffman, 1997), surely among many others.

Figure 4 (below) ultimately links both my own and the previously existing theoretical propositions to show how social actors form *connections*, engage in *communication*, express *control*, and do so *constantly* in a *socially constructed* (Berger and Luckmann, 1966) world.

They have this ability, as *networked individuals* (Rainie and Wellman, 2012) because of the mobility that smartphones *afford* (Ling, 2004) them since having become *domesticated* (Ling, 2004).

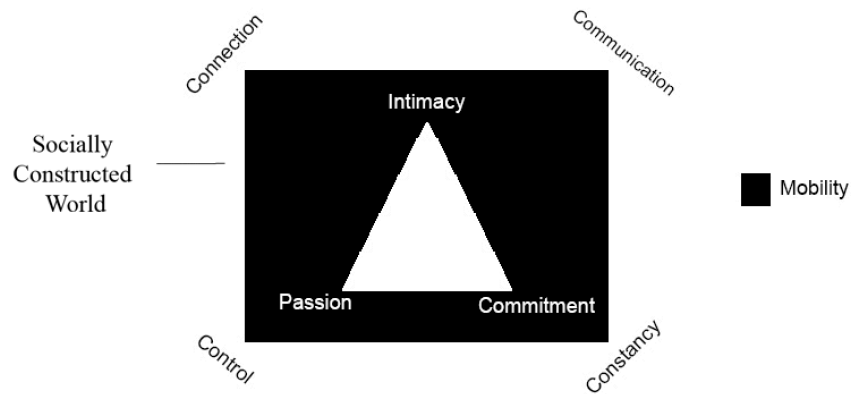


Figure 4: An Updated Theoretical Framework Linking Smartphones & Committed Relationships

While Sternberg's (1986) original work posits a typology of eight different categories of love that form depending on the various combinations of the three foundational elements of his theory, my proposed model can, instead, be considered a theoretical starting point for future inquiry. I cannot say for certain how the four Cs might variably operate in different relationships or in variable combination with one another, but what I can say for certain is that they are direct outcomes of the mobility that smartphones *afford* (Ling, 2004) *networked individuals* (Rainie and Wellman, 2012) in modern society.

CHAPTER 4: CONCLUSION

4.1 Summary of Findings

There are more mobile devices generally, and smartphones specifically, across Canada than there have ever been. People use these devices with seemingly greater frequency, on a day-to-day basis, than they do any other single piece of technology. The goal of this research project was to understand the daily experiences of committed couples that have adopted smartphone technology, and to investigate the use of these devices in this particular social context in terms of the impacts for the relationship on one hand, and for technology use on the other.

I began my analysis by first, summarizing the ways in which people understand and use smartphones and mobile communication on an individual level, with the goal of developing a strong analytical foundation before delving into the much more complex meanings and processes at work in committed relationships. What makes smartphones such a pervasive force, I have argued, are their emergent properties. While earlier mobile phones and other technology offered similar features, operations, and functions, they did so to a limited degree. Adding the component of connectivity through the internet, and mobility to those same features, operations, and functions, removes those limitations, creating the possibility that a person is theoretically connected to the **whole** world, in an **infinite** number of possible ways at **all** times. The mobility that smartphones offer to experiences that were once fragmented and segmented into various different parts of society and their lives, is wherein the emergent property lies. For example, while people once handled their money at the bank, interacted with distant relatives only on holidays, and met their potential life partners at school or at work, now they do all of these tasks, and so much more, wherever they want, whenever they want, and to whatever degree they desire, using their smartphones. By considering mobility as the key part of the equation, the form and

function of the independent components that constitute smartphones, take on new features, qualities, and characteristics when considering them cumulatively.

I then progressed my discussion by providing a brief summary of the ways in which people make sense of their committed relationships, and cumulatively these two sections provided a robust introduction to the in-depth analysis of the intersection of the two substantive areas. To bridge them, I built my subsequent analysis on four higher-order thematic categories, namely the four Cs of connection, communication, control, and constancy. These four concepts, based on my analysis of participant data, have come to inform the way in which people use smartphone technology within the context of their committed relationships.

First, people are using their smartphones not only as a tool to form connections during processes of partner selection and dating, but they are also using their devices to develop connections through communal relationship activities with their significant other. Smartphones also allow couples to form and maintain connections regardless of physical distance, and have even come to enable couples to progress those connections via the role of social media in their respective relationships. Based on these findings, future research might seek to address the wide array of channels available, for instance, as people form romantic connections via their smartphones. For example, how do relationship connections that form via open dating applications, like Tinder that allow all people to express control over partner selection, differ from those formed via closed dating applications, like Bumble that only allow women to control partner selection?

Second, as people use their devices to establish and maintain connections with their significant others, they then rely on their smartphones as an important mechanism of communication. Modern smartphone technology has come to act as an important instrument for people to navigate daily communication with their partners in the preservation of their committed

relationships. As well, though there are countless types and measures of functional forms of communication that couples discussed, smartphones have also introduced new communication challenges, and thus the need for new communication resolutions, into people's lives and relationships. Finally, people have come to recognize the completely novel and unique communication abilities that smartphones have, such as targeted privacy, reflexivity, and collective communication, among many others. This particular set of findings from my study arguably presents the widest range of future research possibilities. For example, entire studies could be developed around questions of how couples communicate differentially at progressive stages of their relationship, or of how early smartphone communication patterns in a committed relationship could be predictive of relationship longevity.

Third, in terms of control, smartphones offer people a completely new level both individually and interpersonally. For some people, that control relates to the formation of new romantic connections in the establishment of committed relationships, particularly for distinct cultural subgroups. For many others, smartphones allow them to control the presentation of their self, especially at the beginning stages of a committed relationship. As well, once people are deeply entrenched in the processes and patterns of their committed relationships, smartphones are a source of and tool for control in terms of use and integration of the device and device-based networks and communication. Based on these findings, I would be curious to see further investigations into whether this sense of control that smartphones give people has had overall impacts on trends in types of relationships, ranging from same-culture relationships, to same-religion relationships, and to same-sex relationships, among many other possible categories.

Fourth, and finally, smartphones are a constant in people's lives and in their relationships. The constancy of the device to this extent has given people a channel through which they can and do establish roles within their committed relationships over time. For many couples, the

constancy of smartphone use and integration also allows them to find and establish a sense of relationship stability with their partners, and ultimately enables them to preserve a longstanding record of their respective committed relationships. This particular outcome from my data analysis raises several possible inquiries for future research, especially because, based on my data, it seems that, smartphones are only increasing in the level and extent to which people are constantly using them and relying on them in their everyday lives. With the technology becoming increasingly integrated into people's lives, questions of whether that constancy is a positive or negative social force remain to be addressed as outcomes from its use continue to be evaluated. We must not forget that, over the span of human history, smartphones are a relatively new technology that we really have no way of knowing the long-term impacts for. This is something that can and should be further explored in future research.

Overall, it seems to me that the experiences people have in their committed relationships, and the experiences they have using smartphone technology within those relationships can be related. Evidence from my research suggests that growth and change in people's relationships reflects growth and change in smartphone use. In terms of similarly comparing satisfaction, the evidence is a bit more ambiguous, again highlighting the major theme of ambivalence that has widely underscored the entire data set. From one substantive perspective, people do generally feel satisfied in their committed relationships. From the other substantive perspective however, people's satisfaction with their smartphones is less consistent. To address whether people feel satisfied through the use of smartphone technology in their relationship, it seems that people acknowledge and understand that human relationships are characterized by flux, and ultimately, it seems, they see their smartphones as tools of that fluidity. Rather than regarding the devices as positive or negative elements in their lives generally, and in their relationships specifically, people, instead, see them as reflections of the state of their own minds, and of the state their

relationships with their partners. If positive behavioral patterns and interactions are already occurring in the relationship, then the smartphone will become a tool of that positivity. Similarly, if negative behavioral patterns and interactions are already occurring in the relationship, then the smartphone will, instead, become a tool of that negativity.

Volumes of data emerged from this study, and even in examining the summary of findings, it is clear to see that the breadth of information that has been discovered, and still remains to be discovered on this particular intersection of subfields is only growing.

4.2 Limitations of the Study

With any formal study, researchers face the challenge of either overcoming or being accountable for the limitations of their work, particularly when the boundaries of practicality are so finite. Many of the limitations of my study have already been discussed at length, specifically in my methodology chapter that deals heavily with the practical constraints that curbed my sampling approaches. Therefore, first and foremost, the greatest limitation that could be identified in my study is representation of wider populations. While a data set of 56 participant interviews does constitute a reasonable and solid starting point in aiming to answer my research questions, my data is more focused on revealing subjective participant experiences through thorough qualitative exploration.

As well, my convenience and snowball sampling techniques lead to some noticeable trends of homogeneity in terms of the demographic makeup of my total sample pool. For instance, and more specifically, a wider variety of age categories, as well as cultural diversity would be more representative of the general population. My sampling techniques naturally lent themselves to a participant pool characterized by younger demographic categories, by greater emphasis on minority groups, and even by a disproportionate sampling of participants with higher educational

attainment levels – all demographic features that echo my own peer groups, and therefore experiences.

Furthermore, in terms of representation, my decision to include only heterosexual couples lent itself to data and a set of findings that are limited in terms of their applicability to other relationship forms. My study cannot speak to the experiences of same sex couples, and whether their use of technology within the context of committed relationships is similar or divergent from that of heterosexual couples. As I alluded to at many points in my discussion, this methodological choice to include only heterosexual couples was first, a measure in practicality and manageability in terms of the scope of my study, and second, was a targeted investigative approach that I employed to ensure that my research had the opportunity to truly deal, in-depth, with the experiences of my study participants, as a way of making valuable contributions to the discipline. I suspect, based on specific aspects of my final findings, particularly those related to gendered patterns, that same sex couples might have a unique perspective to offer as far as the role of technology in their relationship is concerned.

Finally, and dealing once more with my methodological approach, my decision to include only committed couples in my study could also be considered a further limitation in some ways. While on one hand, my reasons for opting to focus on couples that self-identified as committed were based on a presumption that couples who are committed to each other have developed entrenched patterns in their relationship that could then truly be explored to answer my research questions, on the other hand, my data may be construed as presenting an overly optimistic view of the social reality. Since I only chose to research committed couples, the aspect of their commitment that predated my research may have inadvertently led me towards skewed results that reflect patterns of smartphone use that are uniquely, and perhaps positively, associated with committed relationships. Future research in this area may prove that, new couples, casual

relationships, open marriages, and various other relationship forms, in fact, cultivate alternative patterns of behavior and meaning construction in terms of technology use.

4.3 Next Steps

Naturally, throughout the research process, from the planning stages, to the data work, and finally to this discussion of my findings, it seemed for every research question I was able to, even at least partially, address, there were countless more questions that arose to spark ideas for future avenues of research. Of course, beginning with the limitations of my particular study, in amending these gaps, an even clearer and more in-depth understanding could be established in terms of how committed heterosexual couples use smartphone technology in their daily lives. Further to this, studies designed to target various other demographic features, I believe, also have the potential to provide truly valuable insight into the role of modern technology in society. For example, studies designed to specifically explore a wider range of age categories, cultural, racial, and ethnic groups, education attainment levels, and of course the experiences of different types of couples, as well as couples at various stages of their relationship, could help researchers, and people in general, to better understand the role of this smartphone technology that seems to be taking over the world.

In addition, in the case of some of my research outcomes, I believe many of them offer truly compelling starting points for potential future projects. For instance, the reality that people's relationships with their smartphone is highly ambivalent, characterized by the strongest dichotomization of both positive and negative perceptions, meanings, and behaviors, seems an interesting and significant area to further explore. As well, the homogenization of experience that occurs through the oligarch-like structure of the smartphone market, and more importantly the implications this has on people's conception of identity, is another area where I see space for

future investigation. Finally, the outcomes of the constantly developing and diversifying smartphone applications available to help people expand their social networks in ways they have never been able to do before, is yet another area of my findings that could provide a robust foundation for further research. These are just some of the outcomes of my research that I believe open up research prospects for further investigation.

When I was initially mapping this study, as I discussed in earlier chapters, my first methodological design proposed the inclusion of both individual interviews, as well as couple interviews. For future iterations of this, or other similar studies, especially those in which practical resource limitations are of lesser concern, I strongly believe that including both types of interviews has the potential to not only further confirm and emphasize some of the research findings of this study, but to also uncover a whole other set of insights, especially in terms of observational data during couple interviews. Generally, in terms of diversification of methodology, individual interviews, combined with couple interviews, further joined with observational data, even of people's day-to-day lives, I believe, offer endless possibilities of insight towards understanding the role of modern technology in our lives.

Beyond these potential next steps for the field, other substantive outcomes from my research could also constitute viable starting points for future projects. For example, and more specific to technology research, further work is needed on understanding the blurring boundaries between technology-mediated communication and in-person communication as a result of the use of smartphone applications that are continuously being developed and refined to mimic face-to-face interaction. In terms of the growing field of overlapping work that bridges both smartphone research as well as relationship research, work could be further done on exploring aspects of fidelity and alternative lifestyles, especially when considering the ways in which modern

technology may facilitate the less socially-acceptable behaviors surrounding romantic relationships.

Interpersonal relationships are the fundamental building blocks of all aspects of social existence, and romantic relationships specifically are perhaps the most important types of interpersonal relationships we form. Smartphone technology, since its inception, has not only exploded in terms of the proliferation of the devices across populations, but it has also continuously evolved in its levels of sophistication and application in our everyday lives. With both of these firm social realities, the possibilities for future research in either field independently, or in the overlapping subfield, are virtually limitless.

4.4 Final Remarks

To answer my research questions once more, definitively:

- 1) How has the transition to smartphone-mediated communication evolved?

Many people of a wide range of age, gender, cultural, ethnic, religious, professional and educational backgrounds have made the transition to smartphone-mediated communication in their committed relationships.

- 2) What aspects of people's relationships, if any, have been impacted by the use of smartphones?

Many aspects of their relationships have been impacted by the use of smartphones including, but not limited to, perceptions of relationship stage, state, and strength, patterns of behavior according to age, gender, and various other demographic categories, aspects of identity of self and of others, processes of communication, methods of partner selection, relationship navigation and management, balance of privacy and surveillance, blurring of

boundaries between mediums of connection, and encounters with peer groups and social networks, among so many others.

- 3) Do individual couples, and more specifically, particular members of each couple, make use of smartphone technology differently? Does their differential use relate to varying impacts on their relationship?

Individual couples, and more specifically, particular members of each couple do make use of smartphone technology differently in some ways, leading to emergent properties that are wholly unique to each relationship. However, there are consistencies both between and among committed couples that indicate similarities in constructed definitions, symbolic interpretations, and patterned behaviors. The way in which a couple perceives their relationship affects how they seem to use smartphone technology within it, and similarly, the way in which a couple uses smartphone technology affects how they operate in their relationship.

- 4) Do the couples together, and the individual members of each couple, feel their relationship has changed as a result of their smartphone technology?

People do believe their relationship has changed as a result of their smartphone technology use. In an evaluative sense, however, whether these changes are positive, negative, or neutral, is less obvious. People feel a deep sense of ambivalence about the role of smartphone technology within their lives in general, as well as within their relationships specifically.

When I first began this study, my interest in the research, as I discussed in my introduction, was rooted in my personal experiences with and observations of others' experiences with modern smartphone technology. The year that I was born in offered me an interesting

vantage point from which I watched society transform before my eyes, and I was right there, along for the ride. Now, upon reaching the end of this long journey, my interest in the research is stronger than ever, my intrigue and fascination with the world of changing technology has matured, and my professional devotion to growing our collective awareness of the role of this technology in our lives remains abiding. The insights my study participants provided me with by sharing their narratives, reflections, and explorations on the role of smartphone technology in their committed relationships has truly opened my eyes to a whole new understanding of our changing world.

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APPENDICES

Appendix A: Information Letter

“Love in the Time of Caller ID: Understanding the Role of Communication Technology in Committed Relationships” Information Letter

University of Waterloo

September 2015

Dear (Participant Name),

This letter is an invitation to participate in a project I am conducting for my doctoral dissertation in the Department of Sociology at the University of Waterloo. My direct research supervisor is Dr. Lorne Dawson. This letter provides you with more information about this project and what your involvement would entail if you would like to participate in this study. This project will seek to understand how couples use cellular phones in navigating their relationships. Results from my research will help us to understand how modern communication technologies have impacted the ways social actors function in their committed relationships. This study also may offer benefits for both the makers and users of developing mobile technology.

Participation in this study is voluntary and would involve a brief, 10-15 minute email survey to collect general demographic information, and a follow-up individual interview that would extend approximately 60-90 minutes in length. The interview will take place at a mutually agreed upon location and time. You may decline to answer any of the interview questions if you so wish. Further, you may decide to withdraw from this study at any time. With your permission, the interview will be audio recorded to facilitate collection of information, and later transcribed for analysis. To qualify for the study, you must be a smartphone user and self-identify your relationship as committed. I also ask that, should you already be aware of or come into contact with other potential participants who meet these inclusion criteria, that you pass along my contact information and/or the provided information letter to aid in my recruitment process.

All information you provide will be treated confidentially. Your name or any other personal identifying information will not appear in the final dissertation, or in any external presentations or publications resulting from this study; however, with your permission anonymous quotations may be used. Identifying information will be removed from the data before being safely stored on a password-protected computer in my home office. In order to overcome the possibility of participants being able to identify their significant others, the data will be treated with great sensitivity at all stages of the research process from collection, to transcription, to coding, and to analysis. At every stage of the research process, every effort will be made to de-identify the information collected to prevent participants from recognizing their partners in the data set. All

blatantly identifying names and/or personal details will be removed from the data set, although certain basic identifiers will be used in coding, such as gender and age, as they remain relevant to the analysis. All quotes or content that could be directly linked to a single participant will either be disregarded, or additional consent will be sought from the participants involved. The data, notes and/or audio recordings from this study will be retained for the duration of the study or any extensions of this research project, but will be immediately destroyed thereafter.

If you have any questions regarding this project, or would like additional information to assist you in reaching a decision about participation, please contact me at 416-569-6571 or by email at n2manji@uwaterloo.ca. You can also contact my supervisor, Dr. Lorne Dawson at 519-888-4567 ext. 32421 or by email at ldawson@uwaterloo.ca

I would like to assure you that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. However, the final decision about participation is yours. If you have any comments or concerns resulting from your participation in this study, please contact Dr. Maureen Nummelin in the Office of Research Ethics at 1-519-888-4567, Ext. 36005 or maureen.nummelin@uwaterloo.ca.

I would like to thank you very much for your consideration and assistance with this project.

Yours Sincerely,

Noorin Manji
University of Waterloo
Department of Sociology

Appendix B: Consent Form

“Love in the Time of Caller ID: Understanding the Role of Communication Technology in Committed Relationships” Consent Form

Dear (Participant Name),

The purpose of this form is for you to provide consent for your participation in a study I am conducting for my doctoral dissertation in the Department of Sociology at the University of Waterloo. This project seeks to understand how couples use cellular phones in navigating their relationships. Results from my research will help us to understand how modern communication technologies have impacted the ways social actors function in their committed relationships. This study also may offer benefits for both the makers and users of developing mobile technology.

Participation in this study is voluntary and involves a brief, 10-15 minute email survey to collect general demographic information, and a follow-up individual interview that would extend approximately 60-90 minutes in length. The interview will take place at a mutually agreed upon location and time. You may decline to answer any of the interview questions if you so wish. Further, you may decide to withdraw from this study at any time. With your permission, the interview will be audio recorded to facilitate collection of information, and later transcribed for analysis. To qualify for the study, you must be a smartphone user and self-identify your relationship as committed. I also ask that, should you already be aware of or come into contact with other potential participants who meet these inclusion criteria, that you pass along my contact information and/or the provided information letter to aid in my recruitment process.

All information you provide will be treated confidentially. Your name or any other personal identifying information will not appear in the final dissertation, or in any external presentations or publications resulting from this study; however, with your permission anonymous quotations may be used. Identifying information will be removed from the data before being safely stored on a password-protected computer in my home office. In order to overcome the possibility of participants being able to identify their significant others, the data will be treated with great sensitivity at all stages of the research process from collection, to transcription, to coding, and to analysis. At every stage of the research process, every effort will be made to de-identify the information collected to prevent participants from recognizing their partners in the data set. All blatantly identifying names and/or personal details will be removed from the data set, although certain basic identifiers will be used in coding, such as gender and age, as they remain relevant to the analysis. All quotes or content that could be directly linked to a single participant will either be disregarded, or additional consent will be sought from the participants involved. The data, notes and/or audio recordings from this study will be retained for the duration of the study or any extensions of this research project, but will be immediately destroyed thereafter.

If you have any questions regarding this project, or would like additional information to assist you in reaching a decision about participation, please contact me at 416-569-6571 or by email at n2manji@uwaterloo.ca. You can also contact my supervisor, Dr. Lorne Dawson at 519-888-4567 ext. 32421 or by email at ldawson@uwaterloo.ca

I would like to assure you that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. However, the final decision about participation is yours. If you have any comments or concerns resulting from your participation in this study, please contact Dr. Maureen Nummelin in the Office of Research Ethics at 1-519-888-4567, Ext. 36005 or maureen.nummelin@uwaterloo.ca.

I hope that the result of my study will be of benefit to the participants and industries related to my area of inquiry. I very much look forward to speaking with you and thank you in advance for your assistance in this project.

Yours Sincerely,
Noorin Manji

CONSENT FORM

By signing this consent form, you are not waiving your legal rights or releasing the investigator or involved institution from their legal and professional responsibilities.

I have read the information presented in the information letter about a study being conducted by Noorin Manji for her doctoral dissertation in the Department of Sociology at the University of Waterloo. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and to request any additional details I wanted.

I am aware that I have the option of allowing my interview to be audio recorded to ensure an accurate recording of my responses.

I am also aware that excerpts from the interview may be included in the dissertation paper to come from the study, with the understanding that the quotations will be anonymous.

I was informed that I may change my mind about participating in this study at any time.

This project has been reviewed by, and received ethics clearance through a University of Waterloo Research Ethics Committee. I was informed that if I have any comments or concerns resulting from my participation in this study, I may contact the Director, Office of Research Ethics at 519-888-4567 ext. 36005.

With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

YES NO

I agree to have my interview audio recorded.

YES NO

I agree to the use of anonymous quotations in the dissertation that comes from this research.
YES NO

Participant Name: _____ (Please print)

Participant Signature: _____

Date: _____

Appendix C: Pre-Interview Email Survey

“Love in the Time of Caller ID: Understanding the Role of Communication Technology in Committed Relationships” Pre-Interview Email Survey

University of Waterloo

September 2015

1. How old are you?
2. Where were you born?
3. Where do you live?
4. What is your occupation?
5. What is your highest level of education?
6. What is your cultural background?
7. What is your sexual orientation?
8. What is your current living situation - Live alone? Live with significant other? Live with parents?
9. How long have you been in your current relationship?
10. Do you have children?
 - a. How many? How old are they?
11. Do you own a cellular phone?
 - a. What kind of phone do you have? - Brand? Model? Year of model? Service provider?
 - b. How long have you had your current cellular phone?
 - c. How did you obtain your current cellular phone? – purchase? Gift? Hand-me-down?
 - d. How often do you make use of your cellular phone in a day?
12. Have you owned other cellular phones in the past?
 - a. What are some of the other types of phones that you have had?

Appendix D: Individual In-Depth Interview Guide

“Love in the Time of Caller ID: Understanding the Role of Communication Technology in Committed Relationships” Interview Guide

University of Waterloo

September 2015

General Mobile Phone Use Questions

1. Based on your survey responses, I see that you have _____ (kind of cellular phone) - What are some of the features you like about this phone?
2. What are some of the features you do not like about this phone?
3. Is the phone you have now the ideal phone for you?
 - a. Are there other features you would like in a phone?
 - b. If not, what would be the ideal phone for you and why?
4. How long have you been using a cell phone?
5. Why did you initially decide to start using one?
6. Would you consider your cell phone an important possession to you?
 - a. If yes, how do you decide when to make use of it and when not to?
7. For what purposes do you mainly use your phone?
 - a. Phone calls? Text messaging? Media? Music? Camera/video camera? Facebook? Twitter?
 - b. Are there other forms of technology that connect with your phone usage? – computer, television, etc.
8. Who do you mostly communicate with using your phone?
 - a. Friends? Family? Significant other? For business/work/school?
 - b. Do you communicate with different people in different ways? – phone calls for some, text messaging for others?
9. How would your life be different if you did not have a cell phone?
 - a. Do you think having a cell phone improves your quality of life?
10. Many people put a lot of thought into choosing the right device, what are some of the factors you take into consideration before choosing the right phone for you?
11. Do you feel that your cell phone is more than just a piece of technology?
 - a. Does it represent you/your personality/your identity in any way? Do you want it to? Do you not want it to?
 - b. When other people see you with your phone, what do you think it tells them about you?
 - c. When you see other people with their phones, do you perceive elements of their identities from seeing their phone?
12. Do you have friends that use smartphone technology? How do you feel about the way people around you make use of their phones?
 - a. Do they use them too much? Too little? Who uses their phones most around you?
13. Do you think the use of cell phones generally will change in any way in the future?
14. Questions/other comments?

Relationship & Mobile Phone Use Questions:

1. How did you meet your significant other?
2. How much time do you spend with your partner in the average day/week?
3. How would you describe your relationship with your partner?
 - a. If you had to describe your relationship with your significant other in one word or phrase, what would it be, and why?
4. What are some of your favorite qualities about your partner?
5. What are some of the things you agree on as a couple?
6. What are some of the things you disagree on as a couple?
7. When you two encounter challenges in your relationship, how do you overcome them?
8. How often do you communicate with your partner in an average day?
 - b. What methods do you use to communicate with your partner when you are not together?
 - c. Do you think these are effective ways of communication?
 - d. Have you ever experienced any issues communicating using these methods?
 - How did you resolve them?
9. Have you always communicated with your partner the way you do now?
 - e. Has the amount you communicate with them in a day changed?
 - More? Less?
 - f. What are some reasons you think these changes have occurred?
 - g. Do you prefer your communication patterns the way they are now, or do you think they were more effective before?
10. Who usually initiates communication when you two are not together?
 - a. How do you feel about this?
 - b. Would you prefer if your partner initiated communication more/less than they do now?
 - c. If they were to initiate more/less communication with you, how would this impact your perspective on your partner? Your relationship?
11. What methods of communication do you think you two use most when not together?
 - a. How do you feel about this?
 - b. Would you prefer if you and your partner used certain methods of communication more/less?
 - How would changing the forms of communication that you and your partner engage in impact your relationship?
12. Do you two rely on technology in your communication with each other?
 - a. What kinds of technology do you use?
13. Do you use some methods of communication more than others?
 - a. Has your relationship always operated this way?
 - b. Have these patterns changed over the course of your relationship?
 - c. How? Why?
14. How much of your overall communication with your partner do you think occurs through the use of technology?
 - a. Has this changed over the course of your relationship?
 - In what ways?
15. Can you think of a time that the use of technology has positively affected your relationship?

- a. Specific example?
 - b. Did you make changes to your patterns of communication after this experience?
16. Can you think of a time that the use of technology has negatively affected your relationship?
- a. Specific example?
 - b. Did you make changes to your patterns of communication after this experience?
17. Have you made any changes to your relationship through the use or as a result of technology?
- a. Like What?
 - b. Specific Example?
18. Have you started using technology differently as a result of being in your current relationship?
- a. Like What?
 - b. Specific Example?
19. Do you have any other comments about the role that technology plays in your relationship?

Appendix E: Feedback Letter

“Love in the Time of Caller ID: Understanding the Role of Communication Technology in Committed Relationships” Feedback Letter

University of Waterloo

September 2015

Dear Participant,

I would like to thank you for your participation in my study entitled “Love in the Time of Caller ID: Understanding the Role of Communication Technology in Committed Relationships.” As a reminder, the purpose of my study is to understand how couples use cellular phones in navigating their relationships. Results from my research will help us to understand how modern communication technologies have impacted the ways social actors function in their committed relationships. This study also may offer benefits for both the makers and users of developing mobile technology. The data collected during interviews will contribute to a better understanding of how shifts in technology use have affected social outcomes, and to make sense of what role recent technologies have come to occupy in our daily lives.

Please remember that any data pertaining to you as an individual participant will be kept private and confidential. Once all the data are collected and analyzed for this project, I plan on sharing this information with the research community through my doctoral dissertation, conferences, presentations, and journal articles. If you are interested in receiving more information about the results of the study, or would like a summary of the results, please provide your email address, and when the study is completed, I will send you the information. In the interim, if you have any questions about the study, please do not hesitate to contact me by email or telephone as noted below. As with all University of Waterloo projects involving human participants, I would like to assure you that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. If you have any comments or concerns resulting from your participation in this study, please contact Dr. Maureen Nummelin in the Office of Research Ethics at 1-519-888-4567, Ext. 36005 or maureen.nummelin@uwaterloo.ca.

Thank you,

Noorin Manji

University of Waterloo
Department of Sociology & Legal Studies
416-569-6571
n2manji@uwaterloo.ca

**Appendix F: Participant Demographic Information
(Data Collected from Pre-Interview Email Survey)**

Survey Question	Demographic Features	n (N = 56)
Sex	Men	23
	Women	23
Age	18-29	21
	30-39	20
	40-49	8
	50-59	7
Birth Place	Canada	44
	US	3
	Europe	5
	Asia	4
Place of Current Residence	Toronto	9
	Mississauga	9
	Brampton	8
	Scarborough	7
	Oakville	6
	Milton	5
	Pickering	5
	Guelph	4
	Kitchener-Waterloo	2
	London	1
Highest Education Level	High School	4
	College Diploma/Trade Certification	6
	Bachelor's	19
	Masters/LLB	21
	PhD/MD	6
Cultural Background	South Asian (Pakistani, Indian, etc.)	21
	European (Russian, Danish, Italian, French, etc.)	10
	African-American	9
	Asian (Chinese, Japanese, Vietnamese, etc.)	9
	Canadian	7
Sexual Orientation	Heterosexual	56
	Same sex	0
	Bisexual	0
Current Living Situation	Live with SO	22
	Live with Parents	14
	Live Alone	12
	Live with Roommate	8
Length of Current Relationship	< 1 Year	2
	1-5 Years	24
	6-10 Years	16

	11-15 Years	8
	15-20 Years	4
	20+ Years	2
Children	Yes	22
	No	34
Number of Children	1	16
	2	4
	3	2
	4	0
	5	0
Age of Children	0-10	12
	11-20	8
	21-30	2
	30+	0
Own a Cellular Phone	Yes	56
	No	0
Brand of Cellular Phone	iPhone	38
	Samsung	12
	LG	5
	Blackberry	1
Ownership Length of Current Cellular Phone	<6 Months	4
	6 Months – 1 Year	28
	2 Years	15
	3 Years	5
	4 Years	4
	5+ Years	0
Method of Obtaining Current Cellular Phone	Purchase	32
	Hand-me-down	21
	Gift	3
Frequency of Cellular Phone Use in a Day	<5 Times	1
	6-10 Times	1
	11-20 Times	0
	21-30 Times	2
	31-40 Times	0
	41-50 Times	10
	51-60 Times	9
	61-70 Times	27
	71-80 Times	3
	80+	3