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**YOU, ME, AND IT:
MULTIMEDIA RELATIONSHIP MAINTENANCE IN THE 21ST CENTURY**

A Dissertation in
Information Sciences and Technology

by

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ABSTRACT

The advancement of information and communication technologies (ICTs) has led to the re-conceptualization of relationships. Currently, multiple frameworks exist that detail the different behaviors individuals enact to maintain relationships. However, the only electronic media these relational maintenance typologies include is the telephone. This is a limitation of the literature: first, numerous ICTs exist and are being used for maintenance, and second computer-mediated communication (CMC) is being categorized only as a behavior and not also as a context. Previous research has demonstrated that computer-mediated interactions differ from in-person interactions. Therefore, a framework that incorporates CMC as a medium through which the maintenance of relationships occurs is merited. Analyzing data from 16 semi-structured interviews and 421 surveys, this study sought to overcome the limitations in the literature by examining interpersonal relational maintenance through the use of CMC. The overall research goals were (a) to explore how and why CMC is used to support the maintenance of non-platonic relationships that have been initiated in physical environments, (b) to examine the perceived influence of relational maintenance via CMC on relational attributes (i.e., commitment, control, liking, love, quality, satisfaction, stability, and trust), and (c) to explore whether the pre-existing relational maintenance model and typology could be applied to a CMC context, while classifying CMC as a medium. This study was composed of three phases: (a) interview data collection, (b) survey pilot, and (c) survey data collection. Participants in Phase 1 consisted of 16 adults who could report on their use of CMC in a current or past non-platonic relationship. A portion of these same adults participated in Phase 2 ($N = 12$) of the study. Phase 3 participants ($N = 421$) were adults who used CMC to maintain their pre-established, monogamous, heterosexual, non-platonic relationship that was initiated in a physical environment.

Using textual analysis, descriptive statistics, factor analysis, and multivariate analysis of variance, seven research questions were addressed. Findings indicated that the structure of the RMS did not hold when examined in the context of CMC. The frequency with which relational maintenance behaviors (RMBs) were utilized indicated that positivity was used the most and social networks were used the least. Additionally, the overarching reason CMC was used for relational maintenance was because of a desire/need to interact with one's partner (i.e., accessibility and connectedness). Overall, participants believed that using CMC for relational maintenance had a positive impact on their relational attributes. Finally, significant differences were found between RMBs enacted in CMC, the reasons individuals used CMC for relational maintenance, and the perception individuals had of the impact that RMBs enacted in CMC had on the relationship: These differences varied based on relational stage (seriously dating or married) and cohabitation status, but not gender. All of these findings have important implications for relational maintenance literature and relational maintenance execution. Avenues that future researchers may take as a step toward achieving the goal of understanding relational maintenance and how relationships are impacted by CMC enactments are detailed in this study. Ultimately, knowing and understanding this information may help determine how CMC and ICTs can be utilized to assist individuals in maintaining happy and healthy relationships.

Keywords: computer-mediated communication, information and communication technologies, interpersonal communication, interpersonal relationships, relational attributes, relational maintenance

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DEDICATION

To God's people
who strive
to achieve
and maintain
an everlasting
and high quality
LOVE.

INTRODUCTION

The way people think about relationships today has evolved from the way people thought about relationships many years ago. In the past, relationships were based on in-person interactions and traditional letters (with delivery time being based on distance). Later, telephone and other communication-enabling devices were incorporated. This marked the beginning of what some people call “computer-mediated communication (CMC):” a term coined in 1978 by Roxanne Hiltz and Murray Turoff. With the introduction of the Internet and the development of electronic mail (email), virtual communities, online social networks, and electronic dating (edating), the way relationships are maintained has been transformed (Pew, 2000a, 2000b, 2002). With this constantly progressing technological transformation in relational maintenance, comes the need for exploration and understanding of this phenomenon.

The present section provides a description of how relational maintenance using CMC is examined through this dissertation research. The upcoming subsections provide background information to enable readers to orient themselves with the context, purpose, and significance of this study.

Problem Statement and Motivation

Baron (2008) argued that there should be less emphasis on how CMC impacts writing and more emphasis on how technology is changing people and their interpersonal relationships. Currently, there is a notable amount of CMC research that focuses on the formation of online relationships and edating (e.g., Albright, 2001; Donn & Sherman, 2002; Ellison, Heino, & Gibbs, 2006; Gibbs, Ellison, & Heino, 2006; Hardey, 2004;

Merkle & Richardson, 2000) as well as the similarities and differences between CMC and in-person interactions (e.g., Anderson & Wang, 2005; Walther & Parks, 2002). However, there is little research that discusses how the electronic interactions and the in-person interactions mesh to aid in relational maintenance. Therefore, when it comes to the intersection of CMC research and relational maintenance research, there are many areas that remain uncharted and underexplored.

Relational maintenance involves the process of keeping an active link between individuals and sustaining a relationship that the individuals involved find satisfactory. Previous relational maintenance literature tends to focus on platonic relationships, with the exploration of non-platonic relationships generally consisting of marital couples (for exceptions, see Hughes, Morrison, & Asada, 2005; Merkle & Richardson, 2000; Stafford & Canary, 1991). Some relational maintenance scholars have found mediated communication (e.g., telephone use) to be a relational maintenance behavior (Canary, Stafford, Hause, & Wallace, 1993; Dainton & Stafford, 1993; Rabby, 2007; Stafford & Merolla, 2007; Stafford, Merolla, & Castle, 2006). However, there is little literature that examines how relational maintenance behaviors (RMBs) are enacted through CMC. In other words, current relational maintenance literature appears to focus primarily on RMBs enacted in physical environments (for an exception, see Wright, 2004). The studies that do explore electronic environments do so with individuals involved in exclusively online relationships or relationships that have transitioned from virtual to physical environments (e.g., Ramirez & Zhang, 2007). However, there is a middle ground present that is also important to relational maintenance studies; multimedia (also called

mixed-media) relationships (Dietrich, 2004), or relationships that are maintained using more than one type of media (e.g., in-person interactions and CMC interactions).

The majority of relationships today can be classified as multimedia relationships (Pew, 2008; UCLA, 2000, 2001, 2003) and, like all relationships, go through a maintenance process. Yet, little attention has been given to how these varying contexts impact relationship survival. Because most individuals who use CMC are those who have initiated and established their relationship in physical environments (Dietrich, 2004), or those who use mixed-media methods of communication (Pew, 2008; UCLA, 2000, 2001, 2003), this gap in the scholarly literature is perplexing. What is also puzzling is that the majority of interpersonal relationship research seems to focus on forming and deteriorating relationships; although, the majority of time and effort expended in relationships is spent trying to successfully maintain the relationship (Duck, 1988). Given these contradictions, it becomes necessary to focus attention on how CMC is used to complement in-person interactions and how this use promotes relational maintenance.

Problem Scope

Many scholars have viewed in-person interactions and CMC as being mutually exclusive (e.g., the numerous comparative studies; Anderson & Wang, 2005; Walther & Parks, 2002). However, as previously indicated, this may not be an accurate perspective; some individuals may have primarily in-person relationships while other individuals may have primarily CMC relationships, but both types of relationships can have some form of the other. Presumably, there are a number of reasons relational partners interact in the principle method they choose (e.g., distance, convenience, and “richness” of the media).

The various modalities available and the desired interactions often support one another; “with the arrival of such virtual, yet sociable activities, it becomes apparent that among Internet users the [in-person] relationship has been complemented by a social technology that is creating a new genre of interpersonal relationships” (Merkle & Richardson, 2000, p. 188). This interpersonal relationship genre, as noted previously, has been referred to as multimedia relationships and is the focus of this study.

The aim of this study is to uncover whether the RMBs that are enacted in physical environments are also enacted in CMC (i.e., does the medium in which RMBs are enacted have an impact on the behaviors utilized?). This exploration will be done by applying the relational maintenance typology presented in Guerrero and Bachman (2006), a revision of the typology derived by Stafford and Canary (1991), to CMC interactions rather than in-person interactions. In addition, this study will investigate how CMC is used as a method of supporting the maintenance of dating and marital (i.e., non-platonic) relationships by supplementing in-person interactions. Given the previously discussed gaps in the literature, this research will be conducted in an exploratory manner to begin to provide an explanation for RMBs enacted in CMC. It is expected that this study will be a catalyst for future research in the communication, relational maintenance, and technology domains.

Research Overview and Goals

This study was composed of three phases. In Phase 1, semi-structured interviews were conducted. Analysis of interview data resulted in the development of a survey, which was piloted in Phase 2. Analysis of the pilot study data resulted in minor revision

and refinement of the survey. In Phase 3, the revised survey was disseminated to collect the primary survey data reported in this study. Through semi-structured interviews and survey data analysis, this study addressed the following four research goals:

1. To explore how and why CMC is used to support the maintenance of non-platonic relationships that have been initiated in physical environments.
2. To examine the perceived influence of relational maintenance via CMC on relational attributes (i.e., commitment, control, liking, love, quality, satisfaction, stability, and trust).
3. To determine whether the revised relational maintenance typology, proposed in Guerrero and Bachman (2006), is applicable in the context of CMC.
4. To explore CMC as a medium using the current relational maintenance model.

Given the goals of this study, the overarching question used to guide this research was as follows: *How and why is CMC used to maintain non-platonic relationships and what impact does that use have?*

Intellectual Merit and Broader Societal Impacts

First, this study provides novel information to advance understanding about CMC usage as it relates to interpersonal relationship maintenance. With this understanding, the ability to make technical advances that can enhance benefits and reduce limitations of CMC use on interpersonal relationships can be provided. Understanding the motives and logic behind CMC use also means understanding users. Therefore, relational partners will better understand their behavior in CMC environments and the impacts of that behavior on their relationship. Hence, there will be increased knowledge to assist relational

partners in achieving their desired relational outcomes. When it came to non-platonic relationships, this study assumed that the relational goal would be to maintain a healthy, happy, and committed relationship.

Second, “the high rate of divorce and premarital couple break-up documents the fact that too few relational partners cope effectively with their relationship’s maintenance” (Dindia & Baxter, 1987, p. 144). If relationship participants are aware of the factors that lead to their behavior and understand the impacts of their behavior, they may be more capable of managing their relationship outcomes.

Third, the ultimate goal of this research program is to develop a cohesive and inclusive relational maintenance model; one that effectively categorizes maintenance behaviors enacted in interpersonal relationships (both electronically and in person) and includes antecedents, moderating factors, and outcomes. While there is a relational maintenance typology and model in place, both were implicitly developed with in-person interactions at their base.

The present study contributes to the literature by exploring relational maintenance concepts in electronic settings. This will uncover whether the current relational maintenance framework needs to be modified, whether a new relational maintenance framework for behaviors executed via CMC needs to be developed, or whether the current frameworks will suffice for both in-person and electronic interactions. If the current model is found to be limited, the present research can be used to contribute to a more inclusive model. Therefore, the final contribution of this study is its role in bridging the gap between the CMC and relational maintenance research through the exploration of non-platonic relationships established in physical environments.

LITERATURE REVIEW

This research project is interdisciplinary as it examines areas of communication, information sciences and technology, as well as social psychology. Therefore, this section¹ will provide an overview of the relevant literature in these areas as it relates to the study of relational maintenance and CMC.

Prevalent Theoretical Perspectives

During the exploration of CMC literature and relational maintenance literature a number of theories emerged. However, no theory of relational maintenance, CMC relational maintenance, or multimedia relational maintenance was found. Instead, studies on relational maintenance were often supported by an external theoretical perspective or no theory at all; “published empirical investigations of relationship maintenance have been largely atheoretical; those studies that do make use of theory have borrowed theories that were developed for other communication or relational processes” (Dainton, 2003, p. 310). Relevant perspectives found in the literature included social exchange theories (e.g., equity theory, interdependence theory, and the investment model), psychological theories (e.g., attachment theory), relationship process theories (e.g., stage theory and social penetration theory), and information or media theories (e.g., media richness theory and the theory of social information processing).

A noteworthy limitation of the theories employed in relational maintenance research is that most theories were implicitly developed for analysis of in-person

¹ Portions of this section were published in Hales, K. (2009). Ethical Issues in Relational Maintenance via Computer-Mediated Communication. *Journal of Information, Communication and Ethics in Society*, 7, 9-24.

interactions (e.g., relationship formation theories). Therefore, attempting to apply them to CMC may be inappropriate. Likewise, CMC theories were developed with a comparative mindset (i.e., CMC interactions versus in-person interactions) and do not exclusively consider CMC (Soukup, 2000). Ramirez and Zhang (2007) indicated that “no theory explicitly addresses the impact of shifting from CMC to [in-person] modalities,” (p. 290); although, numerous research studies discuss it. This fundamental problem with CMC research may be irrelevant during the exploration of relationships facilitated either through information and communication technologies (ICTs) or in person. However, multimedia relationships will pose a problem for the current theoretical perspectives (Dietrich, 2004) because CMC is not used to replace in-person interactions but, rather, to supplement them (Wellman, Haase, Witte, & Hampton, 2001). Still, the bulk of CMC research tends to dichotomize and juxtapose CMC interactions with in-person interactions, when they are not separate dimensions (Mantovani, 2001); the current literature focuses primarily on purely virtual relationships or on in-person relationships (failing to account for their electronic component). Due to the theoretical inaptness in the relational maintenance literature and the fact that this study is focused on the process of relational maintenance, this study is rooted in the context of stage theory.

Developmental Stages of Relationships

Before discussing the way CMC interactions and in-person interactions are used to maintain relationships, it is important that the reader understand the way relationships evolve to a point where maintenance is required. Currently, a number of theories and models exist regarding the different stages that relationships traverse (e.g., social

penetration theory and stage theory). Although the relationship stages in these theories and models differ in number and name, the commonality is that three basic stages exist: initial attraction, growth, and stability. Some theories take these fundamental stages a step further and incorporate two additional stages: breakdown and closure.

George Levinger's (1983) stage theory (also known as the ABC's model), one of the most frequently cited theories of relationship development in the literature, will be the focus of this section. This model has been applied to a variety of interpersonal relationships. However, it was developed to describe non-platonic, heterosexual, adult relationships. The model contains five stages of relationship development: acquaintance, buildup, continuation, deterioration, and ending.

The *acquaintance stage* occurs when one person becomes aware of another person. It is during this superficial stage that individuals acquire information about the other person directly or indirectly to form an impression about the person. Some relationships may remain in the stage indefinitely and never progress to the next stage. However, when individuals transition from simply knowing about one another to caring about one another they have entered the *buildup stage*.

During the buildup stage, the individuals explore one another and come to learn more about the other person. This familiarization does not have to be intentional, but could occur gradually and with little effort expended on the part of either individual. It is in the buildup stage that bonding occurs and the individuals involved become interdependent; they gain information about the other person to determine whether the relationship is worth continuing and whether a more committed relationship is desired. If

a decision has been made to strengthen the relationship, individuals progress to the *continuation stage*, which is expected to be the longest stage of a relationship.

In the continuation stage, relationship uncertainty is reduced; resulting in a deeper and more stable relationship. For non-platonic couples, this transition may be more public and more deliberate than in other relationship types. During the continuation stage a formal, sometimes legal, announcement of the relationship is made (e.g., exclusivity, engagement, or marriage). Of the five stages, the continuation stage can be considered the peak stage of a relationship as the following stages carry the relationship downhill: the *deterioration stage* is when impairments develop in the relationship (and emotional connections like attachment, commitment, liking, and love weaken), while the final stage is the *ending* or termination of the relationship. **Figure 1** depicts a simplified relationship progression using stage theory. However, it is important to note that not only do many relationships never reach the continuation stage, but many relationships do not pass through all five stages (Levinger, 1983).

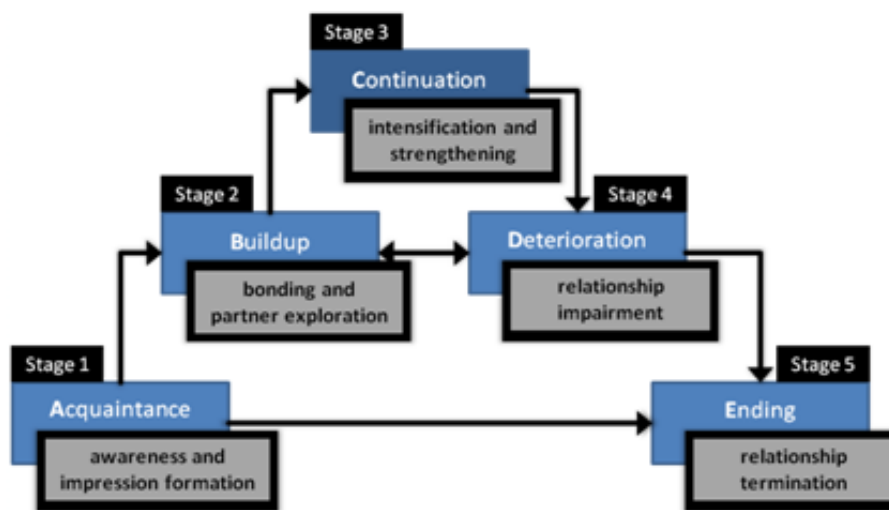


Figure 1. Visual representation of Levinger's ABC's model of relationship development.

If relationships progress sequentially through the five stages, the maintenance stage could be viewed as being between the escalation and de-escalation stage. Looking at Levinger's model, this would mean that the maintenance stage would take the place of the continuation stage. However, Dindia (2003) explains why this would be an incorrect view:

To maintain a relationship is to maintain the stage of the relationship and the characteristics of the relationship associated with the stage of the relationship. . . . From a stage perspective, maintaining the stage of a relationship prevents a relationship from de-escalating (or escalating), and consequently from terminating; but is not the same as continuing a relationship. (p. 3)

Therefore, maintenance should not be considered a relationship development stage. Instead, maintenance should be viewed as a process that occurs throughout various stages of a relationship (as evident from definition one in the upcoming section: keeping an active link between individuals). Often, it is difficult to pinpoint when, why, or how a relationship has advanced from one stage to another. Still, if the desire is to keep the relationship from ending, as individuals progress through the stages of a relationship they must take the necessary steps (i.e., enact the appropriate maintenance behaviors) to ensure the relationship does not begin to deteriorate.

Because most relational maintenance research is not longitudinal, this literature review found no research that details how maintenance enactments change as relationships progress through stages. Nonetheless, for maintenance that is carried out

strategically, the intent behind the action should govern which behaviors are enacted. Therefore, *relational maintenance*, as defined in this study, is “efforts expended to maintain the nature of the relationship to the actor’s satisfaction” (Stafford & Canary, 1991, p. 220). In other words, the process of relational maintenance involves actions individuals take to keep their relationships in a desired state and prevent their relationships from ending (Stafford & Canary, 1991). These actions are what I have been referring to as *relational maintenance behaviors* or *RMBs*.

Relational Maintenance

Definitions. A concept frequently noted by scholars is that, if they are not to deteriorate, relational attributes (also called relational definitions, relationship features, and relationship qualities) must be maintained once they have been established (e.g., Baxter & Dindia, 1990; Dindia & Baxter, 1987; Stafford & Canary, 1991). Relational attributes have been found to be important to the way a relationship progresses, the way a relationship is enjoyed, and the way a relationship is stabilized. This means that relational attributes are crucial to the success of a relationship. Canary and Stafford (1994) have indicated that, “the features of control mutuality, trust, liking, and commitment are critical components of personal relationships that portray the nature of relationships and indicate relational stability; without mutuality of control, trust, liking, or commitment the relationship lacks substance” (pp. 5 - 6). Furthermore, “relationship definitions constitute the interpretive frame by which to attribute meaning to lower-order behaviors” (Wilmot & Baxter, 1983, p. 206). In other words, in order to understand the RMBs enacted within relationships it is important to know what relational attributes are present in the

relationship and at what level. Therefore, when the term *relational attributes* is used, it is referring to the noteworthy characteristics of a relationship (e.g., commitment, control, love, satisfaction, or trust) that reveal its condition or quality (Canary & Stafford, 1994).

Descriptions of *relational maintenance* have ranged from (a) keeping an active link between individuals (i.e., maintaining the existence of the relationship so that it does not terminate), to (b) sustaining the desired status of a relationship (i.e., maintaining relational definitions and relationship quality), to (c) staying above a desired level of satisfaction within the relationship (i.e., participants are at least content with the relationship), and to (d) preventing and fixing issues in the relationship (i.e., avoiding deterioration and termination; Dindia, 2003; Dindia & Canary, 1993). Relational maintenance, however, encompasses all of these behaviors; it is about individuals staying connected, but it is also about sustaining a relationship the individuals are satisfied with (regardless of what that fulfillment entails). Therefore, while it is apparent that scholars have not made an effective effort to develop an overarching definition, combining definitions could eliminate important and necessary distinctions (for a detailed account see Dindia, 2003; Dindia & Canary, 1993). Dindia and Canary (1993) note the importance of distinguishing between the various definitions of relational maintenance and elaborate by noting that “differentiating the various conceptualizations of relational maintenance allows for conceptual clarity, which is necessary for theory development” (p. 167). Therefore, they have argued that every article focused on relational maintenance should explicitly state the definition guiding the study (as I have done in the previous section).

When considering relational maintenance, it is important to understand that RMBs are associated with relational attributes but that they are not identical (Dainton, 2003; Dainton & Aylor, 2002; Guerrero & Bachman, 2006; Stafford & Canary, 1991; Stafford, Dainton, & Haas, 2000). For definitional clarity, relational attributes can be considered adjectives that describe the characteristics present in the relationship (e.g., feelings of commitment, control, love, satisfaction, and trust), whereas RMBs can be considered verbs that describe actions (e.g., demonstrating positivity, loyalty, affection, openness, or support) executed by individuals in a relationship that achieve maintenance. However, even with these definitions, there is currently little consensus regarding the scope and role of RMBs in relationships (Stafford & Canary, 1991). This divergence may be due to the breadth of categorizations available for RMBs, described next.

Types of maintenance behaviors. There are eight different ways maintenance behaviors have been implicitly or explicitly viewed throughout the literature (i.e., strategic, nonstrategic or routine, prosocial, antisocial, constructive, destructive, proactive, or reactive; (Ayres, 1983; Bell, Daly, & Gonzalez, 1987; Dainton & Stafford, 1993; Dindia & Baxter, 1987; Stafford & Canary, 1991). For the sake of completeness, the distinction between these categories will be discussed in further detail (see **Table 1** for a summary). However, it is important to note that this study (like most relational maintenance research) focused on the prosocial maintenance behaviors.

Table 1

Relational Maintenance Behavior Categorizations

Type of RMB	Category	Description
Strategic	Intention	Behavior enacted with a conscious or intentional goal of maintaining one's relationship
Routine	Intention	Behavior enacted habitually, regardless of whether maintenance is an outcome ("by product" maintenance)
Prosocial	Focus	Behavior oriented toward benefiting one's partner during relational maintenance
Antisocial	Focus	Behavior oriented toward benefiting the self during relational maintenance
Constructive	Effect	Behavior that has a positive or helpful impact on one's relationship
Destructive	Effect	Behavior that has a negative or harmful impact on one's relationship
Proactive	Stimulus	Behavior that is self-motivated or used for preventive measures in order to maintain one's relationship
Reactive	Stimulus	Behavior that is provoked or used as a way to correct a potentially negative situation (damage control)

Strategic versus routine. The distinction between strategic and routine behaviors is the intention of the enactor (Dainton & Stafford, 1993) and the execution of the behavior (Dindia, 2003). Behaviors are categorized as strategic if the individual enacted the behavior with the conscious or intentional goal of maintaining the relationships (Dainton & Stafford, 1993; Dindia, 2003). If the individual's intention was not set on relational maintenance or the behavior was enacted habitually, regardless of whether maintenance was an outcome, the behavior is considered routine (Dindia, 2003). In other words, for *routine behaviors* relational maintenance is considered a "byproduct," whereas

for *strategic behaviors* relational maintenance is deemed a goal (Stafford, Dainton, & Haas, 2000).

Since routine behaviors require a lower level of consciousness, it is often the case that “people are less mindful of their routines, until those routines become inefficient or otherwise dysfunctional” (Canary & Stafford, 1994, p. 11). Therefore, it is more difficult to gather information on individuals’ routine relational maintenance as the enacted behaviors are not at the forefront of the mind but are subconscious. A detailed exploration of relational maintenance literature is not required to see that research in this area is biased toward strategic behaviors. However, routine behaviors are slowly beginning to receive more attention by scholars (for a few examples see Dainton & Aylor, 2002; Dainton & Stafford, 1993; Stafford, Dainton, & Haas, 2000). This is important as both strategic and non-strategic (routine) RMBs are important to keep a relationship active (Canary & Stafford, 1994).

Although these behavioral types (i.e., strategic versus routine) are often positioned against one another, they are not necessarily dichotomous (Dindia, 2003). According to Dindia (2003), this is because (a) “people may initially use some relational maintenance behaviors as strategic, but such behaviors become routine over time,” (b) “some behaviors may be strategic for some partners or couples and routine for others,” and (c) “strategic or routine may not be characteristic of maintenance behaviors but of specific instances of maintenance behaviors on particular occasions” (p. 17). Therefore, distinguishing between strategic and routine behaviors can be complex. Much of the current maintenance literature used the term “relational maintenance strategies” rather than “relational maintenance behaviors.” However, it is important to note that the term

“strategies” should only be used if the study is focusing on intentional behavior of the participants. If this distinction of intentionality is not being explored (as in this study), then the term “behaviors” should be used; “behaviors” encompasses both strategic and routine maintenance (Dindia, 2003).

Prosocial versus antisocial. *Prosocial behaviors* refer to being cooperative (e.g., effective relationship talk), while *antisocial behaviors* refer to being uncooperative (e.g., using tactics such as coercion; Canary et al., 1993). Therefore, prosocial behaviors can be viewed as actions “oriented toward benefiting another,” while antisocial behaviors can be viewed as actions “oriented toward benefiting the self” (Rusbult & Van Lange, 2003, p. 360). Simon and Baxter (1993) indicate that there are subcategories within this prosocial or antisocial category. These subcategories contain withdrawal-oriented behaviors (including behaviors such as sulking or ceasing contact) and approach-based behaviors (including behaviors such as initiating fights or presenting ultimatums).

Like routine behaviors, antisocial behaviors have received little attention throughout relational maintenance literature (see Baxter & Dindia, 1990; Canary, Stafford, Hause, & Wallace, 1993; Dainton & Stafford, 1993; Dindia & Baxter, 1987; Guerrero & Chavez, 2005; Simon & Baxter, 1993). Most behaviors included in maintenance models (to be discussed in an upcoming subsection) consist of prosocial behaviors (e.g., assurances, positivity, openness, social networking, and task sharing). While it is expected that prosocial behaviors would be used to maintain relationships, antisocial behaviors can also be used to achieve this goal; for example, individuals in platonic friendships sometimes use antisocial behaviors to prevent the relationship from advancing to a non-platonic level (see Ayres, 1983 for avoidance strategies). Antisocial

behaviors found to be used for relational maintenance include behaviors like using ultimatums, sulking, or engaging in arguments (see Baxter & Dindia, 1990; Dindia & Baxter, 1987).

Constructive versus destructive. Constructive and destructive behaviors should be identified based on the observed impact (e.g., positive/helpful or negative/harmful), or on the outcome of the behavior on the relationship (e.g., termination) or on the relationship participants (e.g., loss of trust). Relational maintenance scholars have explored constructive and destructive communication styles (Dindia & Baxter, 1987), but have yet to explore constructive and destructive maintenance behaviors in detail. In order to do so, scholars would need to conduct a research study where they would be informed of how the recipient of the behavior responded to the projected behavior (e.g., participant observation). In other words, a study about constructive or destructive behaviors should be interaction based (i.e., the behavior and outcome are studied as paired data instead of separately) and potentially longitudinally. Some scholars have attempted to study the impact of RMB enactments on relationships via longitudinal means (e.g., Canary, Semic, & Stafford, 1996; Canary, Stafford, & Semic, 2002b; Guerrero, Eloy, & Wabnik, 1993). However, these studies are limited because they do not explore RMBs and impact of RMBs jointly. While exploration of the constructive or destructive nature of maintenance behaviors is outside the scope of the current study, the perceived impact of RMBs enacted in CMC will be explored.

Proactive versus reactive. Though not classified as such in most studies, RMBs can be considered proactive or reactive. *Proactive behaviors* are enacted to address a situation (sometimes before it becomes problematic; i.e., future-based behaviors), while

reactive or passive behaviors are enacted to ignore or avoid a situation (sometimes until it must be addressed; e.g., damage control). In other words, reactive behaviors can be considered corrective behaviors (i.e., repair mechanisms) while proactive behaviors can be considered preventive behaviors (recall RMB definition “d”; preventing and fixing issues in the relationship; Dindia & Canary, 1993). Dindia and Baxter (1987) and Baxter and Dindia (1990), observed the lack of any clear distinction between proactive (preventive) and reactive (remedial) maintenance; their studies found that the behaviors enacted to maintain or repair the relationship overlapped quite a bit. However, it cannot be concluded, based on this intersection, that the categories should be view as identical. Instead, the finding further demonstrates the need to explore behavioral intent further. While this study does not explicitly explore the intent behind RMB enactments, in some instances it implicitly addresses intent through its examination of individuals’ reason for using CMC to enact RMBs.

Existing typologies. Ayres’ 1983 study is the earliest cited study in relational maintenance research (e.g., Canary & Stafford, 1994; Dindia, 2003; Stafford & Canary, 1991). His study resulted in the development of a 39-item typology. Ayres (1983) believed the literature available on relationship development overlooked stable relationships. Therefore, the purpose of his study was to uncover strategies that individuals used to stabilize their interpersonal relationships. Ayres (1983) emphasized that the term stable “does not mean that no aspect of a relationship changes. Rather, it means that the basic patterns of exchange in the relationship are established and accepted” (p. 62). Ayres (1983) explored this notion through a variety of relationship types including acquaintances, friends, teachers and students, and coworkers. The three-

factor typology derived from his study consisted of *avoidance* (“ignoring things another might do to change a relationship or avoiding doing things that might alter the relationship trajectory”), *balancing* (“keeping the number of favors the same and keeping the emotional support levels constant”), and *directness* (“directly telling the other person in one way or another that you prefer the relationship to remain the way it is;” Ayres, 1983, pp. 64 - 65). Ayres’ (1983) study is relevant to relational maintenance research as it reveals the influence and importance of commitment and relational intent (e.g., the perception of desire for relational progression by either participant) on enacted RMBs.

Bell, Daly, and Gonzales (1987) also developed a relational maintenance typology. Their 28-item typology explored an area and relational type not mentioned by Ayres (1983): quality and satisfaction in marital relationships established by the maintenance of affinity—a relational attribute. The study findings illustrated that perceived frequency of RMB enactments may play a role in relational satisfaction. In addition, Bell et al. (1987) speculated that “individuals’ decisions on [behavior] selection are influenced by their personalities and by situational constraints” (p. 446) and that “certain [behaviors] may be taken for granted and become important only in their absence” (p. 452).

Dindia and Baxter (1987) developed an 11-item relational maintenance typology (see Baxter & Dindia, 1990; Dindia & Baxter, 1987). Their study indicated that length of marriage correlated negatively with relational maintenance strategies (i.e., strategy use decreased as marriage length increased). This finding is important because it introduces relationship duration, and all that accompanies it, as being influential in RMB enactments. Their typology—the first typology to incorporate antisocial RMBs—was

later categorized into three dimensions (Baxter & Dindia, 1990): (a) ambivalence-based or satiation-based conditional use, (b) constructive or destructive communication styles, and (c) proactive or passive use of behaviors.

Stafford and Canary (1991) also developed a relational maintenance typology, which was revised in 1993 by Canary, Stafford, Hause, & Wallace and Dainton & Stafford (see **Table 2**). Stafford and Canary's (1991) typology, the basis of RMBs explored in this study, is currently the most frequently used typology throughout the relational maintenance literature.

Existing model. A number of factors are said to predict the type of behaviors that individuals use to maintain relationships. Canary and Zelle (2000) developed a relational maintenance model to illustrate the factors involved. This model was derived from Canary and Stafford (1994) and revised by Stafford (2003; see **Figure 2**). Canary and Zelle's (2000) original model incorporated the antecedents and behaviors theorized and found to be applicable to relational maintenance; this included individual differences (e.g., attachment style), relationship type (e.g., non-platonic or platonic), relationship history (e.g., relationship duration), and relational equity. The revised model integrated relational attributes (e.g., commitment, control, love, satisfaction, and trust) to serve as both outcomes and antecedents of relational maintenance, creating an iterative process; the antecedent factors influence the RMB enactments of individuals, these RMB enactments then impact relational attributes, then the relational attributes become antecedent factors that influence RMBs, and so on.

Table 2

Relational Maintenance Typology

Behaviors	Descriptions
Antisocial Behavior**	Unfriendly or coercive behavior (e.g., jealousy or deception)
Assurance*	Confirming that the relationship is important, reducing uncertainty of the relationship's future, and expressing one's positive feelings (e.g., demonstrating love and faithfulness)
Avoidance**	Evasive behavior (e.g., ignoring another's attempts at interaction)
Humor**	Telling jokes, teasing, or being sarcastic
Joint Activities**	Quality time or bonding activities
Mediated Communication**	Writing cards, traditional letters, email
Openness*	Directness and disclosures (i.e., meta-communication) that assists individuals in knowing the nature of their relationship and its status
Positivity*	Having an optimistic attitude and behaving cheerfully with one's partner (e.g., being pleasant, courteous, or uncritical)
Social Networks*	Using third party interactions to maintain the relationship (e.g., a unified social support system of friends and family)
Task Sharing*	Willingness to fairly assist a partner with duties to be completed (e.g., household chores and responsibilities)

Note. *Adapted from "Maintenance Strategies and Romantic Relationship Type, Gender and Relational Characteristics" by L. Stafford and D. Canary, 1991, *Journal of Social and Personal Relationships*, 8, pp. 217 – 242. **Adapted from "An Inductive Analysis of Relational Maintenance Strategies: Comparisons Among Lovers, Relatives, Friends, and Others" by D. Canary, L. Stafford, K. Hause, and L. Wallace, 1993. *Communication Research Reports*, 10, pp. 5 – 14.

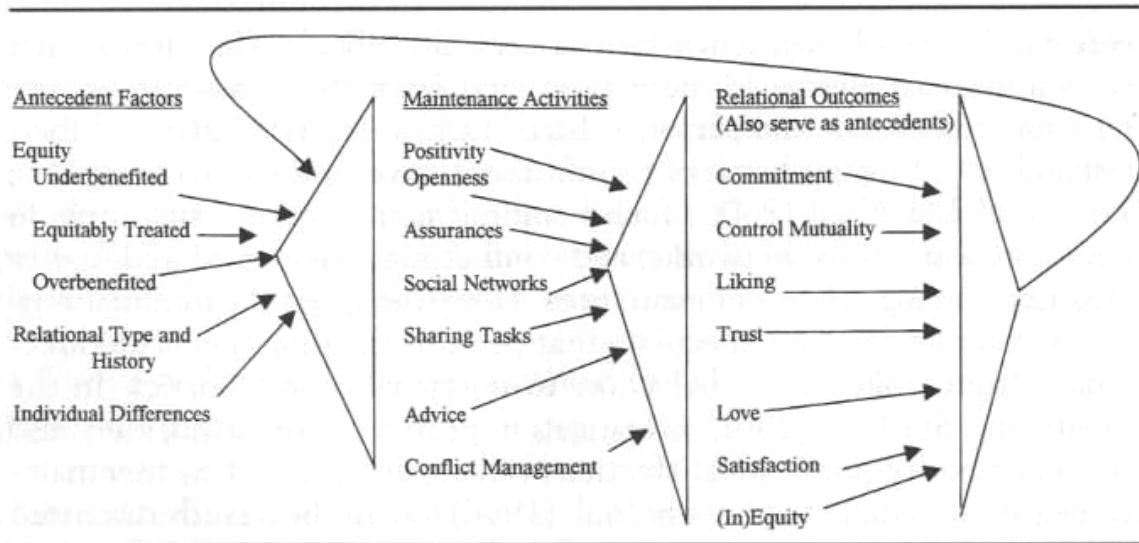


Figure 2. Revised relational maintenance model. Obtained from Stafford, L. (2003). *Maintaining Romantic Relationships: A Summary and Analysis of One Research Program*. In D. J. Canary & M. Dainton (Eds.), *Maintaining Relationships through Strategic and Routine Interaction* (Vol. 2, p. 337). Mahwah, New Jersey: Lawrence Erlbaum Associates.

A limitation of this model is that it does not include factors external to the individuals and their relationship that influence the enactment of RMBs (e.g. the medium used to perform the maintenance behaviors and the context in which those behaviors are enacted). Ragsdale and Brandau-Brown (2005) believe that “the selection and use of maintenance [behaviors] may be a function of heightened awareness of one’s partner, of the communication setting in which one is functioning, and of the ability to adjust accordingly” (p. 64). Because electronic communication differs from any other communication in time, space, speed, ease of use, fun, audience, and opportunity for feedback (Kiesler, Siegel, & McGuire, 1984, p. 1127), it makes sense that individuals would use different maintenance behaviors depending on the medium they are using.

While the current study did not differentiate between the ICTs used for maintenance, it does provide some general support for RMB selection based on media.

Computer-Mediated Communication

Definition. CMC is the process of communication that occurs via ICTs.

Therefore, it can occur synchronously or asynchronously. Like relational maintenance, CMC has been assigned a number of definitions throughout the years. Thus, researchers have not reached a consensus regarding how CMC is best defined. John December (1997) defines CMC as “a process of human communication via computers, involving people, situated in particular contexts, engaging in processes to shape media for a variety of purposes,” (para. 3). To oversimplify this definition, for the purpose of this paper, CMC is any electronic form of communication occurring between individuals. The concept of electronic is critical. Often, individuals become fixated on the word “computer” in CMC and assume that if the communication is not occurring through a desktop computer, laptop computer, or some other form of portable computer then the communication cannot be classified as CMC. However, if the communication is occurring between humans and is mediated by an electronic technology it is within the scope of CMC.

Types of computer-mediated communication and communication media.

CMC is often categorized temporally or by the speed of the interaction (response rate). These types of CMC are referred to as synchronous or asynchronous and are often a result of the type of technology being used to mediate the interaction. Synchronous media allows real-time communication in which collocation is not required, but individuals need to be simultaneously available. Asynchronous media, on the other hand, enables time-

lapsed conversations to occur (i.e., individuals are not expected to be available for real-time communication and may respond at their convenience). This method of communication may be seen as affording a nonintrusive way of communicating, as it is socially expected that there may be a delayed response (Boase & Wellman, 2004). Examples of synchronous (or semi-synchronous) communication media would be instant messenger, text messaging, or the telephone, while examples of asynchronous communication media would be email and social network sites.

Synchronous. Instant Messenger is a technology that allows individuals to chat privately (one-to-one) or publicly (many-to-many or group chat). In order to use this technology, individuals need to have an Internet or intranet connection. Newer instant messaging technologies allow messages to be sent to individuals who are not signed online as well as delivered to mobile phones. Most instant messaging technologies also provide additional features like conferencing services (e.g., voice chat or video chats via webcams), file transfers, and conversation logging.

The *telephone* is a technology that supports dyad and group CMC as well (although one-on-one conversations are more likely within non-platonic relationships). The telephone has been around since the 1980s and, like television, has become heavily engrained in our society. There are currently various types of telephones; the traditional or landline telephone (a stationary, location-based telephone), the mobile or cellular telephone (a portable device that allows individuals to be constantly accessible), and Internet telephony (a web-based telephone system that is becoming more popular due to services like Skype being offered; MSNBC, 2006).

Text Messaging (also referred to as short message service [SMS] or texting for short) allows individuals to send 160-bit characters per message. Traditional forms of texting only allowed mobile devices to send messages to other mobile device. Text messaging services have since expanded and now allow messages to be sent to any device with Internet connectivity (e.g., desktops) and even landline telephones.

Asynchronous. Email can be considered a significantly advanced snail-mail option; individuals can send letters almost instantly, including multimedia forms of communication (e.g., animated greeting cards, music, and videos). With the development of technology, email is no longer restricted to desktop computers and can now be accessed via most mobile devices with Internet connectivity (see Boneva, 2001, for a discussion on email and personal relationships).

Social Network Sites (SNS) support the development of online communities by allowing individuals to connect with other individuals of interest across the globe. These connections could occur between friends, family, associates, romantic interests or partners, and sometimes complete strangers; although the primary purpose is not to initiate relationships but to maintain them (see Boyd & Ellison, 2007, for a detailed account of SNS). Without such technological advancements for communication some of these interpersonal connections might never occur.

Theoretical perspectives. Earlier views of CMC have indicated that CMC is most effective for information exchanges and is ineffective for social interactions. Those theories that view CMC as a social disadvantage are situated within the cues-filtered-out (or reduced cues; Culnan & Markus, 1987) perspective; an umbrella term that covers multiple theories (e.g., social presence theory, media richness theory, and social context

cues theory). Scholars that apply this perspective are often viewed as technological determinists who believe that CMC participants have little to no control over the impact of the technology on their interaction. By this, I mean that scholars in this arena focus on the features afforded by the media while ignore the people involved in the interaction. Supporters of this perspective tend to compare CMC interactions with in-person interactions and believe that the limitations of CMC prevent valuable social information from being transmitted. They believe that “when these social cues transmitted nonverbally are filtered out of messages, the emotional content is also stripped” (O’Sullivan, Hunt, & Lippert, 2004, p. 466), which results in CMC being impersonal and increasing ambiguity and uncertainty.

The cues-filtered-out perspective, which had merit in the 1980s, has become outdated in the 21st century: technologies now exist that allow an increasing amount of cues to be provided to an interaction partner. One limitation of studies in the cues-filtered-out perspective, however, is that the empirical studies are often time constrained. Other research has shown that CMC relationships can develop just as deep, if not deeper, than in-person relationships when sufficient time is allocated (Walther, 1993). Scholars ascribing to such beliefs do not view the reduced social cues (i.e., aural, contextual, and visual cues) in CMC as a shortcoming. These scholars oppose the technological deterministic view and follow a more social shaping of technology perspective; they believe that although numerous people use the same media, the media is often used in various ways for multiple purposes and often influences its users in different manners (Williams & Edge, 1996). In other words, users of CMC are contributors and actively create information and meaning; they are not the passive receivers that the technological

deterministic view proposes. Unlike the cues-filtered-out perspective, scholars with these views (e.g., those using theories like social information processing) see the reduction of social cues positively in that it adds other dimensions not afforded by in-person interactions. Therefore, in this perspective, CMC is not neutral and detached but is capable of affording an emotionally-rich and personal interaction.

Affordances of computer-mediated communication and communication

media. Affordances have been defined based on perception, cognitive constructs, and effectiveness (John & Sutherland, 2005). For the purpose of this study, *affordances* are considered “relationships or properties of relationships that [provide] opportunities” (John & Sutherland, 2005, p. 407). In other words, “the term *affordance* describes what a situation makes possible or may activate in interacting individuals,” (Rusbult & Van Lange, 2003, p. 358). As previously discussed, most research on CMC focuses on the technical affordances of the media being explored (e.g., lack of social cues and social presence). However, there are a number of social and psychological affordances that result from CMC use and make using it desirable.

The use of CMC eliminates the physical restraints and restrictions of location; CMC “can be used to break down the geographic and social barriers imposed by society, thereby uniting people all across the globe” (Kvasny & Hales, 2010). Socially this allows individuals to stay connected at all times, but psychologically it allows a feeling of closeness (O’Sullivan, Hunt, & Lippert, 2004) and the belief that one is never alone; individuals do not need to be concerned with being collocated in order to communicate. With CMC, individuals are able to reach people in places that, in the past, were never possible (this is the notion of being “always on;” see Baron, 2008). In other words, CMC

is distance independent (i.e., it is not constrained by physical proximity) as a result of the accessibility it affords. This accessibility can be obtained in a synchronous or asynchronous fashion.

Text-based CMC has a number of affordances. Most obvious is that it provides an electronic “paper trail” (i.e., recordability and tracking of interactions). In this respect, conversations can be stored, retrieved at a later date, shared with others, or even published. In other words, CMC creates a third party and, as a result, may impact privacy. Most notable throughout the literature is the idea of reduced social cues, which is also present in non-text-based CMC. Reduced social cues in CMC create a “buffer effect” for communication partners (O'Sullivan, 2000); “given the physical and psychological distance created by lack of visual and perhaps aural information, the initiator is somewhat insulated from the potentially negative reactions of the receiver that may be conveyed through the receiver’s facial expression and intonation” (Byrne & Findlay, 2004, p. 51). This buffering is multidirectional as the receiver may also alter his or her reaction in order to present it in a desired and socially acceptable manner. In other words, CMC affords individuals the ability to be in control of self-presentation as well as manage the impression they are giving others about themselves (Ellison, Heino, & Gibbs, 2006; Walther, 1992; Walther & Burgoon, 1992). This is especially true in asynchronous CMC where “one may plan, contemplate, and edit one’s comments more easily than in the more spontaneous, simultaneous mode” (Walther, 1993, p. 394). These CMC affordances have been said to explain why CMC can lead to a deeper connection (e.g., stronger intimacy) than in-person interactions (Hu, Wood, Smith, & Westbrook, 2004; Walther, 1995); the filtration of social cues in CMC has been found to result in reduced

communication apprehension (i.e., unrestrained thought flow) and strategic representation of self.

Roles and applications of computer-mediated communication. As indicated by Johnson (2004), the introduction of computers allows individuals to do things never before imaginable, but it also allows them to do old things in new ways. The same can be said for general technological advancements. The electronic environments in which CMC takes place are very similar to physical environments. By this, I mean that some of the issues individuals grapple with in electronic environments can be paralleled with those experienced in physical environments. Although this is true, electronic and physical environments have also been shown to be different in several ways (e.g., the richness of the media; the highest level of richness being in person). Therefore, one should not assume the same rules that apply for maintenance behaviors enacted in person will apply in electronic communication; this requires empirical investigation.

A number of studies have been conducted to explore the influence of CMC interactions on relationships. Hu et al. (2004) conducted a study on instant messenger use. Their findings indicated that using instant messaging positively correlated with relational intimacy. Similarly, Hian et al. (2004) investigated relational intimacy comparing CMC interactions with in-person interactions. They found that it is possible for CMC relationships to develop stronger than in-person relationships. This supports Scott et al.'s (2006) finding that CMC is an alternative for individuals who struggle with in-person intimacy. In addition, Walther's (1995) research findings indicate that strangers were able to achieve a greater level of intimacy in CMC than could be achieved in person. Furthermore, Walther (1995) found that relational intimacy increases faster

during CMC interactions than it does during in-person interactions. This could be because, in some cases, the nonverbal cues afforded during in-person interactions are detrimental to the development of the relationship. Given one of the definitions of relational maintenance (i.e., sustaining a certain level of involvement or intimacy), intimacy via CMC is a worthwhile area for further study. However, the more general question that warrants exploration by scholars is: *how do behavioral enactments in CMC influence relational attributes?*

Research Philosophy

Before delving into what the specific research questions are for the current study and how they will be explored, it is important to talk about my research philosophy. There are currently three philosophical research orientations that could inform this study; critical (change), interpretivist (understanding), or positivist (predictive; Braa & Vidgen, 1997; Orlikowski & Baroudi, 1991). **Figure 3** provides a visual representation of this research space and **Table 3** details the differences in these philosophies.

In **Figure 3**, the unidirectional arrows within the triangle represent the movement toward each epistemology. Through the process of reduction the predictive point is reached, which allows for greater explanatory power, predictive power, and generalizability (as per the *positivist* epistemology). The understanding point is reached through the process of *interpretation*, which allows comprehension of a phenomenon in a given context. Finally, through intervention the change point is reached, which (as per the *critical* epistemology) is expected to liberate involved parties from oppression. For this study, the critical research philosophy is not appropriate. The overall goal of this study

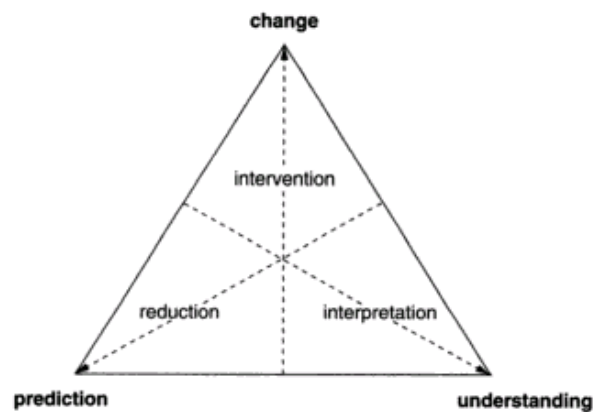


Figure 3. A research framework representing methods space. Adapted from Braa, K., & Vidgen, R. (1997). An Information Systems Research Framework for the Organizational Laboratory. In M. Kyng & L. Mathiassen (Eds.), *Computers and Design in Context*. Cambridge, MA: MIT Press.

was not to intervene in individuals' relationships or to uncover contradictions in the way their relationships were maintained. Instead, the goal of this study was information gathering. In other words, this study sought to “predict or explain” rather than to “evaluate and transform” (Orlikowski & Baroudi, 1991). Therefore, the positivist and interpretivist epistemologies are more appropriate options.

Braa and Vidgen (1997) indicate that the connecting “sides of the triangle represent trade-offs between the ideal types [i.e., epistemologies] of research outcomes” (p. 385). The tradeoff between the positivist (predictive) and interpretivist (understanding) philosophy is whether a complex situation will be understood through rich interpretations, or whether complexity will be reduced in order to attribute a relationship between the trigger and the outcome (Braa & Vidgen, 1997). What the current study is doing aligns best with realm of understanding than anything else.

Orlikowski and Baroudi (1991) indicate that the positivist epistemology dominates in information systems research, while the interpretive epistemology dominates in social science research. Given the interdisciplinary nature of my interests, it makes sense that my philosophy would be integrative. Since a “researcher chooses between positivist and interpretive approaches based on the research question and the nature of the phenomenon of interest” (Orlikowski & Baroudi, 1991, p. 15), this study was conducted using an interpretivist epistemology employed through a mixed-method approach (surveys and interviews).

It has been noted that interpretive research “supplements positivist research” by providing rich data on which to develop hypotheses for investigation (Orlikowski & Baroudi, 1991, p. 15). The current study will operate in this function. As previously discussed, this study will serve as a stepping stone for future scholars interested in relational maintenance through CMC. Given this first step toward developing an empirical base, this study should contribute to or provide a foundation for theory development and hypothesis testing.

Methodology: mixed methods. A survey was chosen as the primary data collection method for various reasons. First, it was essential that data be collected from a large and diversified sample to aid in the development of a unified relational maintenance typology and model. Second, surveys are both anonymous and convenient for the participant; the participants did not have to be concerned with potential judgments by the researcher and could complete the survey on their own time. Third, there were temporal and monetary constraints that would have prevented the collection of diversified and abundant data using a different method. Finally, surveys are the dominating method of

data collection in relational maintenance research (Harvey, 2001, p. 365) with few longitudinal studies (for longitudinal study examples, see Canary, Semic, & Stafford, 1996; Canary, Stafford, & Semic, 2002b; Guerrero, Eloy, & Wabnik, 1993), and no identified observations or experiments.

The reason given for this is that “the extant literature on maintenance does not yet seem to have reached the numerical size to encourage meta-analyses,” (Harvey & Wenzel, 2001, p. 365). Interviews were also conducted for a couple reasons. First, the interviews provided insights into the types of questions that should have been included in the survey during development. Second, interview data collection provides richer data than survey data collection. The findings from the interviews and the surveys were used to support one another.

Epistemology: interpretivist. As stated, this study employed an interpretivist epistemology because one of the primary goals was to describe and understand the role of CMC in relational maintenance. In addition, although the bulk of the data came from a survey, the fact that qualitative data were collected promotes interpretation. This study was not focused on causality, prediction, or correlation. The understanding gained from this study will come from the examination of the literature, the utilization of the researcher’s personal experiences and knowledge, and interpretation of the data collected.

Table 3
Positivist and Interpretivist Epistemology Comparison

POSITIVIST	INTERPRETIVIST
<p><i>Assumptions and Beliefs</i></p> <ul style="list-style-type: none"> - A priori fixed relationships exist within phenomena - Humans interact in relatively stable and orderly ways (i.e., human action is intentional and rationale) - Conflict and contradiction are not endemic (conflict serves to reveal discrepancies to be corrected) 	<p><i>Assumptions and Beliefs</i></p> <ul style="list-style-type: none"> - The social world is not "given," but produced and reinforced by humans through their action and interaction - Humans interact in relatively stable and orderly ways
<p><i>Classification</i></p> <ul style="list-style-type: none"> - Generalization from the sample to a population (i.e., across contexts/situations) - Formal unidirectional propositions - Quantifiable measures of variables - Hypothesis testing 	<p><i>Classification</i></p> <ul style="list-style-type: none"> - Generalization from the setting to a population is not sought; rather the intent is to understand the deeper structure of a phenomenon, which it is believed can then be used to inform other settings - Nondeterministic perspective with circular or reciprocally interacting models of causality - Data collected from the perspective of the participants - Outsiders' a priori understanding on the situation is not imposed
<p><i>Purpose</i></p> <ul style="list-style-type: none"> - To test theory in order to increase predictive understanding of a phenomena - To develop nomothetic statements: Unidirectional cause-effect relationships (i.e., laws) identifiable and testable via hypothetic-deductive logic and analysis (i.e., verifiable/falsifiable) 	<p><i>Purpose</i></p> <ul style="list-style-type: none"> - To describe, interpret, analyze, and understand the social world from the participants' perspective - Researchers attempt to understand phenomena through accessing the meanings that participants assign to them
<p><i>Researcher (value-free)</i></p> <ul style="list-style-type: none"> - Independent from the object of inquiry - Plays a passive, neutral role in the investigation 	<p><i>Researcher (value-laden)</i></p> <ul style="list-style-type: none"> - Moral judgments and subjective opinion
<p><i>Investigation</i></p> <ul style="list-style-type: none"> - Structured instrumentation 	<p><i>Investigation</i></p> <ul style="list-style-type: none"> - Allow participants to use their own words and images, and to draw on their own concepts and experiences
<p><i>Limitations</i></p> <ul style="list-style-type: none"> - Adopts a predefined and circumscribed stance towards the phenomenon being investigated, which is not conducive to the discovery and understanding of nondeterministic and reciprocal relationships - Ignores contextual and historical influences 	<p><i>Limitations</i></p> <ul style="list-style-type: none"> - Does not address external conditions, unintended consequences of action, structural conflicts and contractions, or historical change

Note. Information obtained from "Studying Information Technology in Organizations: Research Approaches and Assumptions" by W. J. Orlikowski and J. J. Baroudi, 1991. *Information Systems Research*, 2(1), pp. 1 - 28.

Research Questions and Hypotheses

Figure 4 demonstrates how the relational maintenance model (see **Figure 2**) has been updated for the present study: the bolded items highlight the differences between the models. As demonstrated in the figure, this study is interested in exploring the original antecedent factors of individual differences (gender), relational type (non-platonic relationships), relationship history (cohabitation status) as well as an added factor of relational stage (seriously dating and married). Relational stage, while new to the model is not new to research: researchers have been exploring dating and marital relationships for as long as they have been studying relational maintenance. The anticipated maintenance behaviors were extracted from the modified relational maintenance model found in Guerrero and Bachman (2006). This revised model added the final two behaviors of support and comfort as well as romantic affection. Relational attributes will be explored as depicted in the original model with the addition of relational quality and relational stability, which were two attributes often highlighted in the literature reviewed.

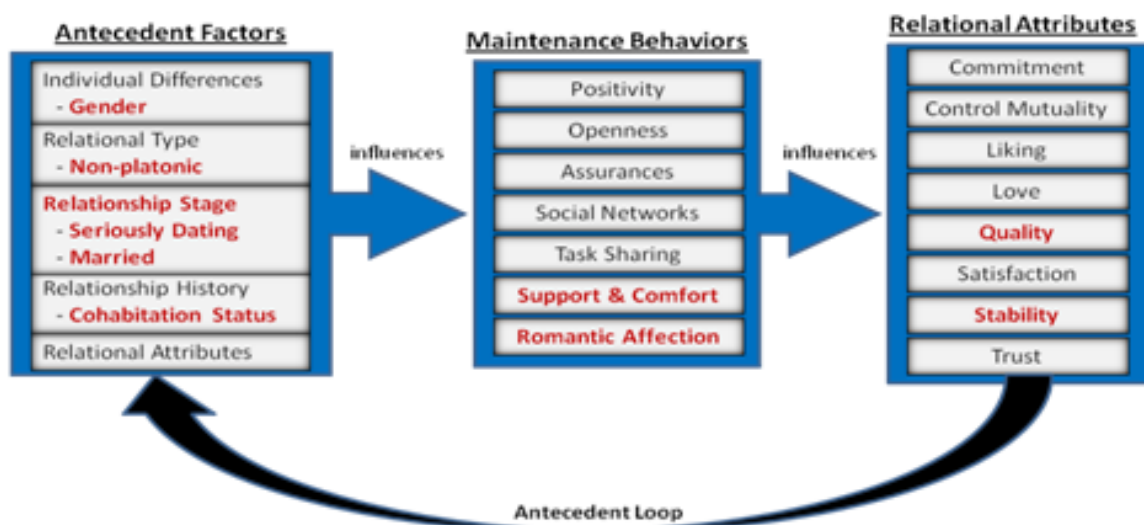


Figure 4. Relational maintenance model updated for the present study.

Given **Figure 4**, there were four primary research questions (RQs) and three hypotheses (H) that this study sought to address. RQ₁ asked, *what is the factor structure of the relational maintenance scale in the context of computer-mediated communication?* This research question was posed in order to tackle the research gap related to whether the relational maintenance typology can be applied to CMC interactions or whether a new framework would need to be developed. It was hypothesized that (H₁) the factor structure would change. After uncovering the RMS factor structure for CMC, this study aimed to determine which RMBs dominated and how RMBs were being used across varying groups. Therefore, RQ₂ asked, *what is the frequency with which relational maintenance behavior enactments occur in computer-mediated communication?* With a follow-up question (RQ_{2a}) that asked, *does the frequency with which relational maintenance behavior enactments occur in computer-mediated communication differ based on gender, cohabitation status, or relational stage and, if so, how?* It is expected that (H₂) females and individuals who are dating or not cohabitating with their partner will, on average, report using RMBs in CMC more frequently than individuals who are male, married, or cohabitating with their partner.

Since the overall goal of this research is to determine how CMC can be used in a way that benefits relationships, it is important to first understand how individuals believe their CMC usage influences their relationships. Therefore, RQ₃ asked the following question: *what is the perceived impact of relational maintenance behaviors enacted in computer-mediated communication on relational attributes?* It was expected that (H₃), on average, individuals would perceive their CMC usage for the maintenance of their non-platonic relationship to have a positive impact on their relational attributes. RQ_{3a} was

more specific and sought to explore the question, *does the perceived impact of relational maintenance behaviors enacted in computer-mediated communication differ based on gender, cohabitation status, or relational stage and, if so, how?*

Individuals' belief about the impact CMC has on their relationship may influence the way they respond to their partner when their partner uses CMC as a relational maintenance tool. In addition, these attitudes and beliefs may play a role in individuals' decision to use CMC with their partner. Therefore, it is important to understand what factors influence whether individuals use CMC with their partner for relational maintenance. As such, the final research question this study sought to explore the following question (RQ₄): *why do individuals decide to use computer-mediated communication to enact relational maintenance behaviors?* And, more specifically, (RQ_{4a}) *do the reasons individuals decide to use computer-mediated communication to enact relational maintenance behaviors differ based on gender, cohabitation status, or relational stage and, if so, how?*

PHASE 1: INTERVIEWS

Method

Participants

Participants ($N = 16$) were adults whose ages ranged from 20 to 44 years old ($M = 29.31$, $SD = 6.75$). The sample was composed of 44% males ($n = 7$) and 56% females ($n = 9$). The majority of participants self-identified as being African-American ($n = 7$, 44%), graduate student ($n = 6$, 38%), and educated at the bachelor's degree level ($n = 7$, 44%). In addition, all participants were residing in the United States at the time of the study and reported on a heterosexual relationship: 56% ($n = 9$) were currently in a relationship and 44% ($n = 7$) were not currently in a relationship. Most of the participants were seriously dating ($n = 9$). However, 19% of participants were married, 13% of participants were engaged, and 13% were casually dating and not monogamous. Finally, 56% ($n = 9$) of participants were cohabitating, while the remainder were not cohabitating. See **Appendix A** for a detailed list of demographic information and relationship background information by participant.

Procedures

Approval to conduct research with human participants was sought from the University's Office of Research Protections' institutional review board (IRB) and granted on April 7, 2009 (see **Appendix B** for the informed consent form). On April 7, 2009 a single email was sent to a graduate student listserv at a predominately Caucasian University in the Eastern region of the United States. In addition, on April 18 of 2009,

Facebook—a social network site—was used to solicit additional interview volunteers (see **Appendix C** for recruitment messages). To be eligible for this phase of the study, individuals needed to be at least 18 years of age and have a current or past non-platonic relationship to discuss. Twenty-one individuals volunteered to be interviewed, but only 16 completed the interview; the remaining five volunteers never followed-up to schedule the interview.

The data collection process occurred from April 13 to April 25, 2009. Individuals who responded to the recruitment messages were contacted by email to schedule a semi-structured interview. Once the interview was scheduled, participants were emailed a link to an online demographics survey and were asked to complete it at least one hour before their interview. All interviews were conducted by the researcher; a female doctoral student. The interviews ranged from 35 minutes to 90 minutes and were conducted in person ($n = 6$, 38%) or by telephone ($n = 10$, 62%). One of the telephone interviews was conducted using Skype because the participant was in another country at the time of the interview. Due to unavailability of a webcam, the interview was conducted using one-way video: meaning, the interviewer was able to see the participant but the participant was unable to see the interviewer.

Interview Content

Participants were asked a number of questions related to the use of CMC for relational maintenance in non-platonic relationships. Specifically, the purpose of the interviews was to uncover how and why CMC is being used to maintain non-platonic relationships and the perceived impact of this use in order to (a) determine what content

should go into the survey and (b) provide supporting commentary for survey results. To begin to address the two guiding research questions of this study, participants were asked to discuss their viewpoints and their personal experiences with CMC use in non-platonic relationships. The interview questions that were the focus of this phase were as follows (see **Appendix D** for the interview guide):

- (a) What are your thoughts on the use of technology to communicate and maintain relationships?
- (b) How do/did you use electronic communication or communication technologies to maintain your relationship with your partner?
- (c) What positive and or negative behaviors do/did you use in communication technologies to maintain your relationship with your partner?
- (d) Why do/did you use electronic communication or communication technologies to maintain your relationship?
- (e) What does electronic communication offer that in-person communication does not offer in regard to maintaining a relationship?
- (f) What factors do you believe influence your desire to use (or not to use) electronic communication in your non-platonic relationship?
- (g) What impact do you believe the use of electronic communication has on your non-platonic relationship in terms of quality, satisfaction, and maintenance?

Data Analysis

The interviews were transcribed and coded from April 13, 2009 to July 1, 2009 by the interviewer. Review of the qualitative comments was used as the data analysis method. Manual textual analysis—a standard methodology in the social sciences—was used to examine the interviews for emerging themes. The coding of the interview transcripts was done inductively and deductively: Although the interviews were read with a priori theoretical expectations, the coder remained receptive to other recurring themes that emerged. A priori expectations were derived from the literature reviewed as well as from the theoretical model for relational maintenance (see **Figure 2**). Therefore, it was expected that emerging themes would be related to pre-established relational maintenance behaviors (e.g., positivity, openness, assurances, social networks, and task sharing), individual differences (e.g., attachment style), relational type and history (e.g., length of relationship), and relational attributes (e.g., commitment, control mutuality, liking love, satisfaction, and trust).

Emerging Interview Theme Results

The results of interview data analysis are presented in a quantitative form. This is because, as previously indicated, the analysis of interview data was used to determine which questions and measures to include in the survey used for Phase 2. The qualitative part of the interviews will be used to support the survey findings and this will, therefore, be elaborated in the discussion section.

Most individuals indicated that they used CMC as a way to do the following:

- (a) stay connected to their partner (50%),
- (b) filter out cues they did not want their partner to receive (44%),

(c) plan meetings, events, or activities with their partner (44%).

All participants provided at least one answer that related to the affordances of the technology (e.g., “[in email] I can go back, delete and edit before I go back and send,” Interviewee 13, a 25 year-old female), while 75% of participants provided at least one answer that related to individual differences in personality (e.g., “For me it’s a preference because I can filter my thoughts out better when I write.... When you talk you don’t have that luxury. When you’re face-to-face you don’t have that luxury. Your thoughts can get really really jumbled up,” Interviewee 13, a 25 year-old female). For technical affordances, responses included factors like immediacy or synchronicity, accessibility, convenience, monitoring, and reduced cues. For individual differences, responses included factors like attitudes and beliefs about technology, attachment style, communication style, and personality style. Surprisingly, age was noted by only 19% of participants.

The most frequent themes that emerged were as follows:

- (a) immediacy/synchronicity (81%)
- (b) distance between partners (75%)
- (c) accessibility (75%)
- (d) the generation in which an individual was born (69%)
- (e) convenience (44%)
- (f) the ability to share information with one’s partner (31%)
- (g) third-party interactions or influences (31%)

A 25 year-old female indicated that *“businesses are more demanding. People are having to move away from their families just so they can find a job. So, the way to stay connected is through a lot of online media and electronic media,”* (Interviewee 13). She was not the only one to discuss the demands of life and the use of CMC to stay connected: *“Given the fast-paced, hectic life most couples lead, the electronic communications are important because it enables people to stay in contact even when they may be a few minutes away from each other or far away from each other,”* (Interviewee 16, 28 year-old male). This former statement also highlights the notion that individuals utilize CMC to keep in touch regardless of distance.

However, different people have different reasons for using CMC. A 33 year-old interviewee highlighted reduced cues and comfort as reasons for using CMC by indicating that *“using electronic communications are good for shielding bits of ourselves that we feel we don’t want people to see or we’re not comfortable expressing to other people,”* (Interviewee 11). Another interviewee discussed the notion of convenience and autonomy by stating that *“because we are ambitious, independent people, [using CMC is] just an easy and nice way to connect regularly,”* (Interviewee 4, 38 year-old female). There is also the notion of power because *“technology kind of allows you to control the communication a little bit in terms of how and when you can communicate,”* (Interviewee 7, a 31 year-old female).

When interviewees were asked to offer specific examples of the RMBs enacted in CMC, most participants noted behaviors that were generally clear cut and did not require a lot of deciphering (e.g., “just thinking about you”). Not many participants offered examples from the Stafford and Canary (1991) relational maintenance typology without

being prompted. However, when provided a list of the behaviors to reflect on, each participant agreed that they used most of the behaviors referenced. Some participants even noted the use of affection, encouragement, and assistance with task completion.

These interview data analysis findings demonstrated that measures related to relationship history (e.g., distance), individual differences (e.g., attachment style), relational maintenance behaviors (e.g., positivity), technical affordances (e.g., reduced cues), and relational attributes (e.g., commitment) should be included in the survey developed for large scale data collection. As such, measurements related to these categories were included in the survey for the Phase 2, described in the upcoming section.

PHASE 2: SURVEY PILOT STUDY

Method

Participants

The survey pilot-study group consisted of 10 (63%) of the interview participants from Phase 1; the remaining six participants did not respond to follow-up email requests. Therefore, the sample was composed of 60% males ($n = 6$) and 40% females ($n = 4$). Participants' ages ranged from 24 to 45 years old ($M = 31.30$, $SD = 6.25$). The majority of participants self-identified as being African-American ($n = 5$, 50%), Christian ($n = 5$, 50%), graduate student ($n = 5$, 50%), and educated at the graduate degree level ($n = 5$, 50%). In addition, all participants were residing in the United States and reported on a heterosexual relationship: the sample was evenly split with half of the participants being in a current non-platonic relationship and the other half of participants not being in a current non-platonic partner.

Procedures

To establish the viability of the developed survey, a pilot study was conducted from August 10, 2009 to August 22, 2009: four months after interviewing. Participants from Phase 1 were emailed with a link to the pilot survey and asked to complete it. Appended to the end of the survey, was a list of qualitative and dichotomous questions about the piloted survey that participants were asked to answer. The purpose of the feedback questions was to ensure that the survey progressed smoothly, made sense, and was clear. Therefore, participants were asked to answer questions regarding the amount

of time it took them to complete the survey and if that amount of time was acceptable, whether any part of the survey was unclear, if any errors were present, and if there were any questions that they felt uncomfortable answering (see **Appendix E** for the informed consent form and **Appendix F** for the list of survey feedback questions).

Survey Structure

The survey began with an informed consent form that detailed the purpose of the study, eligibility requirements, incentive for participating, participants' rights, and appropriate ethical research codes pertaining to the study. *Section one* was used to determine the participants' eligibility for the study (e.g., "Are you currently in a dating or marital relationship?"). *Section two* was composed of the relationship-background inventory and collected data on the participants' relationship history (e.g., length, seriousness, type of interactions, and cohabitation). *Section three* was the primary survey section and collected data on the participants' feelings about their relationship, feelings about their partner, and feelings about themselves (i.e., theoretical questions related to commitment, control mutuality, love style, satisfaction, trust, relational maintenance behaviors enacted, and participants' reasons for using CMC for maintenance). *Section four* asked the participants to evaluate themselves in terms of their attachment style. *Section five* items were developed by the researcher based on the interviews and asked the participants to evaluate the usefulness of various mediums (e.g., blogs, phones, email) for relational maintenance, the proficiency level of themselves and their partner with different ICTs used to facilitate CMC, how frequently they use CMC with their partner, and the perception they had of the impact of their CMC usage on their relationship. The

final section of the survey contained the background inventory section, which collected demographic information on the participants.

Data Analysis

As previously indicated, the purpose of this phase was to pilot the survey to be used in Phase 3. Therefore, participants' responses to the survey feedback questions were reviewed. This analysis assisted in determining whether any changes needed to be made to the survey.

Survey Modification Results

Upon completion of the survey, the pilot study participants raised very few issues. In addition, the feedback that was provided indicated that only minor survey changes were required. None of the participants felt the survey was too lengthy; on average, it took them approximately half an hour to complete it. Participants indicated that they considered exiting the survey on the Likert scale pages in section three that required a lot of scrolling. As a result, those pages were separated into multiple pages in hopes of making the questions appear to be less daunting of a task. Three participants indicated that several of the survey questions with Likert scales were confusing. In other words, the scale anchors did not match the survey questions. Therefore, all of the Likert scale questions on the survey were reviewed and, where appropriate, the Likert scale anchors were changed to match the desired rating for the questions.

Some participants expressed discomfort in providing their income level. For the original question, participants were asked to input their income into a text box. On the modified survey, participants were provided with a range of incomes and were asked to

select the range in which their income fell. There were also other questions that had selection options added. For example, one participant indicated that while he was married, he was also separated from his wife and they had filed for divorce. The way the original marital status question on the survey was presented did not allow for such a situation. Therefore, additional options were added to that question. Finally, minor modifications were made in the wording of some questions to aid in clarity and to match the scale anchors. The modified survey was then used as the primary data collection method for the upcoming Phase 3.

PHASE 3: PRIMARY SURVEY

Method

Participants

The sample was composed of 36% male adults ($n = 153$) and 64% ($n = 268$) female adults. Participants' ages ranged from 18 to 63 years old ($M = 31.83$, $SD = 10.32$; with five non-responses). The majority of participants self-identified as being Caucasian ($n = 309$, 73%), Christian ($n = 232$, 57%), employed full time ($n = 153$, 36%), and educated at the bachelor's degree level ($n = 133$, 32%). In terms of race, the remaining participants identified as African-American ($n = 48$, 11%), Asian or Asian-American ($n = 29$, 7%), Latin or Hispanic ($n = 21$, 5%), or Other ($n = 10$, 2%). For employment status, the breakdown was as follows: undergraduate student ($n = 67$, 16%), graduate student ($n = 132$, 31%), academic ($n = 32$, 8%), employed part-time ($n = 15$, 4%), retired ($n = 3$, 1%), self-employed ($n = 6$, 1%), unemployed ($n = 4$, 1%), not in the workforce ($n = 3$, 1%), and other ($n = 5$, 1%). Participants achieved the following level of education: high school diploma ($n = 21$, 5%), some college ($n = 61$, 5%), associate's degree ($n = 14$, 3%), bachelor's degree ($n = 133$, 32%), master's degree ($n = 90$, 22%), and doctorate degree ($n = 52$, 13%). The remaining 8% ($n = 32$) of participants provided answers that could not be accurately classified, but indicated that they were beyond the high school level of education.

While most individuals in this study were heterosexual ($n = 402$, 96%), 4% ($n = 17$) of participants self-identified as being gay or bisexual and two individuals did not respond. However, all participants reported on their current heterosexual relationship.

The length of couples' relationship ranged from 1 month to 44 years ($M = 89.25$, $SD = 95.24$). Most of the participants were married ($n = 212$, 51%). However, 42% ($n = 178$) of participants were seriously dating, 5% ($n = 22$) of participants were engaged, and 2% ($n = 8$) of participants were casually dating; one participant did not respond. In terms of cohabitation status, 63% ($n = 262$) of participants were cohabitating, while the remainder ($n = 157$, 37%) were non-cohabitating; there were also two non-responses. Finally, the majority of the participants were residing in the United States at the time of survey data collection ($n = 405$, 96%), while the remaining 4% ($n = 15$) of participants—excluding one non-response—were disbursed across the globe (i.e., Australia, Canada, Denmark, France, Italy, Morocco, Sweden, and The United Kingdom).

Procedures

The revised survey was made available for an eight-week period, from September 17, 2009 to December 18, 2009. To recruit participants, several steps were taken (see **Appendix G** for the informed consent form and **Appendix H** for recruitment messages). A recruitment announcement was emailed to mailing lists of colleges and professional organizations: postings were also made on the Facebook pages of two of these professional organizations. The researcher also used her Facebook page to publicize the announcement. In addition, the announcement was printed in the electronic newswire of a predominantly Caucasian University in the Eastern region of the United States. Finally, in an attempt to improve underrepresentation of racial and ethnic minorities, the announcement was printed in four consecutive Sunday bulletins of a predominantly African American church in the Eastern region of the United States. All solicitation

materials contained a link to the online survey and eligibility requirements: In order to be eligible, participants needed (a) to be at least 18 years old, (b) to be in a current monogamous, heterosexual, non-platonic relationship that was initiated in person, and (c) to use CMC to maintain their non-platonic relationship.

Based on the pilot study results, individuals were informed that the survey would take approximately 10 to 45 minutes to complete in one sitting. The survey was designed so that, based on relationship status, participants would be navigated to the appropriate list of questions to be answered. Therefore, it was expected that individuals who were not in a current relationship would take less time to complete the survey and individuals who were in a current relationship would take more time to complete the survey. Upon completion of the survey, participants were given the opportunity to provide their contact information as well as the contact information of other individuals who might have been interested in the study. These additional individuals were contacted by email with one of two personalized recruitment messages (see **Appendix I**). If participants included their contact information at the end of the survey, they were entered into a raffle for one of 10 Visa gift cards that totaled \$500: one \$100 card, two \$75 cards, three \$50 cards, and four \$25 cards. Raffle winners were contacted by email in January 2010 and asked to provide their addresses so that their gift card could be mailed.

Data Management

In total, 1,071 individuals initiated the online survey but 33% ($n = 355$) did not complete it. Of the 67% ($n = 716$) of initiated surveys that were complete, 38% ($n = 269$; 25% of all initiated surveys) were eliminated due to participant ineligibility for the study:

Of those 269 eliminated participants, 132 were removed for not being in a current non-platonic relationship, 11 were removed for having multiple partners, 21 were removed for being in a same-sex relationship, 97 were removed for having met their partner through technology (e.g., online or telephone), and 8 were removed due to missing data points on eligibility requirement variables (i.e., gender, $n = 2$; monogamy, $n = 1$; and partner's sex, $n = 5$). Therefore, 62% ($n = 447$) of the participants with completed surveys and 42% of all initiated surveys were eligible for the study.

Examination of the eligible participants' surveys revealed a missing data issue. Of the remaining 447 cases, 37% ($n = 165$) had at least one missing value. Because of the severity of missing data, it was necessary to further reduce the sample size. Cases with ten percent or more missing data points across the survey were eliminated ($n = 10$). Another missing data analysis was then conducted for each measurement scale. As a result, cases with ten percent or more missing data points within each measure were also eliminated ($n = 16$). Consequently, the sample size was reduced to 421 participants; approximately 39% of surveys that were initiated and 59% of surveys that were completed.

While there are opposing views on imputing data (see Graham, 2009), research has shown that data imputation results in reasonable accuracy, preserves the original relationship between variables, and is a good alternative to reducing the sample size (Ni, Leonard II, Guin, Feng, 2005). There are various ways to impute data (e.g., EM algorithm, Maximum-likelihood methods, and multiple imputation). However, multiple imputation has been demonstrated to be the best imputation method (Graham, 2009). Therefore, multiple imputation was conducted on the remaining cases to resolve the

missing data issue and to preserve the sample size. Decisions for conducting the multiple imputation were made based on the recommendations of Graham (2009), Graham, Cumsille, and Elek-Fisk (2003), and Graham, Olchowski, and Gilreath (2007).

Schafer's Norm 2.03 program was used to impute each of the measurement scales included in the study: the variables comprising background and demographic information were excluded. All of the imputed values were rounded to the nearest observable (or legal) value based on the survey options (i.e., Likert scale anchors). Forty datasets were imputed within each of the three imputation models (Graham, Olchowski, & Gilreath, 2007). After each model was imputed, they were imported into the statistical package for the social sciences (SPSS) v.18.0 for Windows data analysis software. Each model was imported separately and then merged into one SPSS data file with participants' background and demographic information. Finally, the 40 imputed datasets were aggregated into one dataset (Ni, Leonard II, Guin, Feng, 2005). These aggregated values were then recoded so that, once again, all values corresponded with the Likert scale anchors. The three imputation models consisted of the three measures for this study: (a) relationship maintenance behaviors, (b) reasons for CMC use, and (c) perceived impact of CMC usage for relational maintenance. These measures are described in detail below.

Measures

The measures selected for the survey were based on their use in the current literature, their ability to address the research questions, the themes that emerged from the interviews in Phase 1, and the researcher's familiarity with them (see **Appendix J** for the full survey). In addition to the pre-established measures in the literature, there were

various items included in the survey that were developed by the researcher as a result of interview data analysis. However, for this study, only a subset of the measures included in the survey was utilized. The remainder of this section will detail the measures in section two and three of the survey that this study focused on.

Demographics. A demographics inventory was used to gather information about the participants' background. Participants were asked to answer 13 questions about themselves: age, sex, sexual orientation, race, social status (e.g., student or professional), education level, income, country of current residence, religion, relationship status, marital status, the number of times they were married, and the number of children the currently had.

Relationship background. The relationship background inventory was composed of 15 questions that were designed to collect data on the participants' relationship history with their partner. These questions related to the following topics: (a) how participants met their partner, (b) time elapsed (e.g., how long they knew their partner and had been dating), (c) the state of the relationship (e.g., level of seriousness, monogamy, geographic distance, and cohabitation), and (d) interactions with their partner (e.g., the amount of time they spent interacting with their partner and whether their interactions were primarily in person or electronic). Participants were also asked to disclose the total number of serious non-platonic relationships they had experienced.

Perceived impact of CMC usage for relational maintenance. The purpose of the perceived impact (PI) measure was to determine the type of influence participants believed the use of CMC for relational maintenance had on their non-platonic relationship. The measure consisted of a single question (“*What is your perception of the*

impact electronic communication with your partner has on your relationship?”) that participants were asked to answer for eight relational attributes and for the overall impact on their relationship. The relational attributes in question were commitment, control, liking, love, quality, satisfaction, stability, and trust. Participants rated the items on a 7-point Likert scale ranging from 1 (*high negative impact*) to 7 (*high positive impact*), with a rating of four representing a neutral impact.

Reasons for using CMC for relational maintenance. The reasons for CMC use (R4CU) measure consisted of a list of 20 Likert-scale items that participants rated from 1 (*no influence*) to 7 (*strong influence*). The purpose of these items was to measure the reasons individuals use CMC as a way to maintain their non-platonic relationship. The 20 items were developed by the researcher based on the coding categories derived during interview data analysis in Phase 1 of the present study. These interview participants were asked the open-ended question “*Why do you use electronic communication or communication technologies to maintain your relationship?*” The coding categories selected for use were the ones of interest to the present study that also had the highest overall occurrence across interviews. All R4CU items can be found in **Appendix K**.

Relational Maintenance Behavioral enactments. Participants’ usage of RMBs was measured using a modified version of the Relational Maintenance Scale (RMS). Developing the relational maintenance behaviors taxonomy was a two-step process. First, Stafford and Canary (1991) gathered and analyzed the available literature on relational maintenance in order to deductively collect relevant items related to the topic. Second, 956 individuals in non-platonic (i.e., married and dating) relationships were surveyed using a single question: “*What do you do to maintain a satisfactory relationship?*” Three

hundred and nine behaviors were gathered and placed into 19 subcategories. By eliminating redundancy, the items were reduced to 78. Finally, a series of principal components factor analyses using a varimax rotation were conducted. As a result of this final analysis, a five-factor typology was derived: the 78 items were reduced to 24 items, which had parsimonious structure/pattern coefficients (ranging from .57 to .85, $Mdn = .70$) within the factor solution. The resulting five-factor typology accounted for 62% of the variance and included positivity ($\alpha = .89$), openness ($\alpha = .84$), assurance ($\alpha = .84$), social network ($\alpha = .71$), and task sharing ($\alpha = .76$).

The modified 29-item version of Stafford and Canary's (1991) measure supported the previous typology while adding two additional dimensions: romantic affection (female $\alpha = .80$; male $\alpha = .82$) and support & comfort (female $\alpha = .92$; male $\alpha = .86$; Guerrero & Bachman, 2006). This revised version was utilized in the current study, with a few additional modifications made to aid in applicability. First, all items were changed from past tense to present tense. For romantic affection, the item "*I gave my partner items of sentimental value such as gifts and cards*" was changed to read "*electronic gifts and e-cards*." The item "*I showed affection by touching my partner*" was changed to "*I show my partner affection by verbalizing physical touch (e.g. saying "kisses" or writing "hugs")*." In addition, one of the positivity items ("*I presented myself as cheerful and optimistic when with my partner*") was removed due to its apparent overlap with another item ("*I acted cheerful and positive when with my partner*"). Finally, another positivity item was changed from "*I was very nice, courteous, and polite when we talked*" to "*I am very nice, courteous, and polite when we communicate*." All items from the RMS included in this study can be found in **Appendix L**.

Data Analysis

SPSS v.18.0 for Windows was used as the software package for quantitative data analysis. Prior to research question exploration, two preliminary data analysis steps were taken: first descriptive statistics for the variables were examined for accuracy; second the statistical assumptions for each analysis were examined to ensure the selected tests could be conducted. The statistical tests selected for data analysis were dependent on the research question being explored and the measurement level of the variables included. Therefore, exploratory and principal components factor analysis, frequency distributions, and multivariate analysis of variance (MANOVA) with follow-up analysis of variance (ANOVA) were utilized for data analysis.

Factor analyses. Principal components analysis (PCA) was used for the R4CU items developed by the researcher, while exploratory factor analysis (EFA) was selected for the RMS. PCA was used for the R4CU items because the goal of the factor analysis was data reduction. EFA was selected for the RMS because the items have never been examined in the context of CMC and a latent factor structure was being sought. In both cases, confirmatory factor analysis (CFA) was not appropriate. CFA is meant to be utilized with scales that are based on theory and well established. In other words, CFA is used for testing a scale rather than for theory development, uncovering latent constructs, or data reduction (Thompson & Daniel, 1996).

To demonstrate factorability of the sample's correlation matrix, Bartlett's test of sphericity needed to be statistically significant and the Kaiser-Meyer-Olkin's (KMO) measure of sampling adequacy needed to exceed the minimum requirement of .60 (Field, 2009; Hair Black, Babin, Anderson, & Tatham, 2006). For initial factor retention criteria,

parallel analysis (PA), minimum average partial (MAP) analysis, and the standard error of scree (SEscree) test were used (Stellefson, Hanik, Chaney, & Chaney, 2009; Zwick & Velicer, 1986). Secondary factor retention criteria were set a priori for statistical significance, practical significance, factor structure interpretability, and factor adequacy. Structure/pattern coefficients needed to be $|.40|$ or greater to achieve statistical significance and $|.50|$ or greater to demonstrate practical significance (Hair et al., 2006). Items were considered to be complex loadings if values were $|.32|$ or greater on multiple factors. Due to a violation of parsimony, these items were excluded from the selection and interpretation of the factor structure (Brown, 2009; Costello & Osborne, 2005; Tabachnick & Fidell, 2007). For factor adequacy, a minimum of three items per factor with salient structure/pattern coefficients, reliability estimates greater than or equal to $.70$, and theoretical interpretability were required (Hair et al., 2006; Zwick & Velicer, 1986). Because the dimensions were expected to be correlated, all of the factor structures were examined using an oblique rotation. A promax rotation was selected to interpret the factor solutions as it has been shown to provide the simplest factor structure ($k = 4$; Tataryn, Wood & Gorsuch, 1999). While both structure and pattern coefficients were examined, only pattern coefficients were interpreted and reported. Once a final factor structure was selected, composite scores were created by adding the items with salient pattern coefficients on each factor.

Multivariate analysis of variance (MANOVA). Using the composite scores from the EFA and PCA, three one-way MANOVAs were conducted to examine the linear composite of the relational maintenance behaviors based on cohabitation status (living together or living apart), gender (male or female), and relational stage (seriously dating or

married). Follow up one-way ANOVAs were conducted for statistically significant findings to determine where differences existed. To control for inflated Type I error, a Bonferroni adjustment was implemented for interpretation of statistical significance ($p < .001$).

Frequency distributions. Overall frequency distributions were conducted on the three main measures of the survey (RMS, R4CU, and PI) as well as the grouping variables (cohabitation status, gender, and relational stage) by measure. The original relational stage options from the survey consisted of casually dating, seriously dating, engaged, and married. However, the casually dating ($n = 5$) and engaged ($n = 20$) groups did not have a large enough sample size to be viable for data analysis. Because the findings for these two groups would be considered unreliable, only data from seriously dating and married individuals were analyzed for questions related to relational stage².

Results

Descriptive Statistics

The survey data consisted of 421 cases. However, 46 cases were identified as extreme outliers: 13 were identified as univariate outliers through an examination of boxplots while 33 multivariate outliers were identified using Mahalanobis distance (17 on RMS items and 17 on R4CU items, with one overlapping on both). Examination of the data for the 46 cases with extreme outliers did not reveal a systematic pattern of bias.

Therefore, the EFA and PCA were conducted with and without the cases. Because

² The 25 cases containing casually dating and engaged individuals were not included in analyses related to relational stage but were included for other analyses.

noteworthy differences emerged in the factor solutions, the outliers were excluded from all analyses and the sample size was reduced to 375. Demographic information for this reduced sample was similar to the original sample.

For reporting clarity, descriptive statistics (i.e., means, standard deviations, correlation coefficients, communalities, and reliability estimates of the scores) will be reported with each respective research question.

Statistical Assumption

The basic assumptions of EFA/PCA (linearity of variables, multivariate normality of the distribution of scores, and moderate to high correlations between variables), MANOVA (multivariate normality of the distribution of scores and homogeneity of covariance), and ANOVA (within-group normality and equal variance between groups) were examined. Examination of scatterplots demonstrated linearity. Minor skew and kurtosis were present in the data but were negligible given the sample size and the robustness of the statistical procedures (Hair, Black, Babin, Anderson, & Tatham, 2006; Field, 2009); because the skew (ranging from -1.70 to 1.66, *Mdn* = -.03) and kurtosis (ranging from -1.72 to 2.97, *Mdn* = -.64) were not severe, item scores still approached normality. The range of correlations, which will be discussed with each respective research question, also indicated no singularity or multicollinearity. Based on Box's test, homogeneity of covariance was violated for a number of variables. Therefore, statistically significant findings for MANOVA should be interpreted with caution. Levene's test also demonstrated a violation of homogeneity of variance between groups for a number of variables. However, to correct for heterogeneous variances present in the

post hoc one-way ANOVAs, Welch's F statistic is reported in instances where the assumption of homogeneity of variance between groups was violated (Field, 2009).

Research Question 1

The first research question asked, *what is the factor structure of the relational maintenance scale in the context of computer-mediated communication?* To address this question, an EFA using principal axis extraction was conducted on the correlation matrix of the 28 RMS items. The correlation matrix was found to be factorable; Bartlett's Test of Sphericity: $X^2(378) = 8862.44$, $p < .001$; KMO = .95. Correlation coefficients ranged from .15 to .90 ($Mdn = .46$). Item-level descriptive statistics (mean scores, standard deviations, and correlation coefficients) for the RMS are reported in **Appendix M**.

Initial factor retention criteria (PA, MAP, and the SEscree) indicated a three-, four-, and nine-factor solution, respectively. However, theoretical expectations were for a seven-factor structure. Therefore, all four factor solutions were examined to identify the simplest factor structure that conformed to a priori criteria for factor retention (minimum of three items per factor, structure/pattern coefficients greater than or equal to .50, no complex loadings, reliability estimates no lower than .70, and interpretability). A brief examination of the nine- and seven-factor solution indicated that the solutions were not viable because all factors did not meet the minimum item requirement. Therefore, only the four- and three-factor solutions are reported.

Four-factor solution. In the four-factor solution, 22 of the 28 RMS items had salient pattern coefficients. As a result, Factor I was comprised of nine items with pattern coefficients ranging from .60 to .85 ($Mdn = .71$): three Openness items, three assurances

items, and three romantic affection items. The combination of these items reflected the actions individuals take to emphasize their interest in their relationship and their connection to their partner. Therefore, this factor was relabeled Affirmation. The pattern coefficients for Factor II ranged from .65 to 1.03 ($Mdn = .88$). Factor II contained a combination of four support & comfort items along with the two task sharing items from the original scale. The task sharing items (“I let me partner know I am willing to help with tasks” and “I help my partner accomplish tasks”) appeared to reflect support & comfort as well. Therefore, Factor II was labeled Support & Comfort. All four of the social networking items were salient on Factor III with pattern coefficients ranging from .66 to .84 ($Mdn = .78$). Therefore, Factor III was labeled Social Networks. Finally, three of the original five items reflecting positivity were salient on Factor IV with pattern coefficients ranging from .59 to .94 ($Mdn = .92$). Factor IV, therefore, reflected the same construct and retained the label Positivity. Reliability estimates of the scores ranged from .87 to .94: Affirmation, $\alpha = .92$; Support & Comfort, $\alpha = .94$; Social Networks, $\alpha = .88$; Positivity, $\alpha = .87$. Factor correlations ranged from .35 to .75 ($Mdn = .56$), the communalities ranged from .19 to .89 ($Mdn = .64$), and the factor solution accounted for 63% of the total variance. Conducting the EFA a second time, while excluding the six non-salient items (items 4, 6, 10, 11, 14, and 15), confirmed that the factor structure remained unchanged.

Three-factor solution. The three-factor solution contained 24 salient pattern coefficients out of 28. Four items were not salient on any factor (items 4, 6, 14, and 17), while two items cross loaded on Factor I and Factor II (item 11 and 16). Consequently, Factor I was composed of 10 items that originally reflected positivity, task sharing, and

support & comfort (pattern coefficients ranged from .53 to 1.00, *Mdn* = .68). The combination of these items appeared to demonstrate the behavior of individuals' who are thoughtful toward their partner. Therefore, Factor I was labeled Consideration. Factor II was composed of eight items, which originally reflected romantic affection, openness, and assurances. The combination of these items reflected the actions individuals take to emphasize their interest in their relationship and their connection to their partner. Therefore, this factor was relabeled Affirmation. Pattern coefficients for Factor II ranged from .67 to .85 (*Mdn* = .78). Factor III was the only factor to conform to theoretical expectations and contained the four social networking items, with pattern coefficients ranging from .68 to .88 (*Mdn* = .80). Therefore, Factor III was labeled Social Networks. This three-factor solution explained 61% of the total variance, with factor correlations ranging from .49 to .71 (*Mdn* = .52), and reliability estimates of the scores ranging from .88 to .94 (*Mdn* = .91): Consideration, $\alpha = .94$; Affirmation, $\alpha = .91$; Social Networks, $\alpha = .88$. Factor correlations ranged from .45 to .74 (*Mdn* = .49), communalities ranged from .19 to .85 (*Mdn* = .60), and the factor solution accounted for 59% of the total variance. Conducting the EFA a second time, while excluding the six non-salient items (items 4, 6, 11, 14, 16 and 17), confirmed that the factor structure remained the same.

Factor solution comparison and selection. It is better to over extract than it is to under extract (Zwick & Velicer, 1986); reducing the solution from four factors to three factors would result in poorer interpretability and theoretical convergence. Given the combination of this fact and the retention criteria, the four-factor solution was determined to be a better fit of the data. Therefore, hypothesis one—the factor structure will

change—was supported. Pattern coefficients, after promax rotation, and communalities for the four-factor solution of the RMS are reported in Table 4.

Table 4

Pattern Coefficients for the Four-Factor Solution of the Relational Maintenance Scale Using Principal Axis Extraction with Promax Rotation

Item – Classification – Description	Factor I	Factor II	Factor III	Factor IV	h^2
7 Affection Act romantic and affectionate	.85	-.11	.04	.01	.63
15 Openness Share feelings about relationship	.84	.04	-.07	.00	.71
5 Affection Create a romantic environment	.84	-.19	.08	.02	.58
8 Affection Verbalize physical touch	.73	-.16	.05	.03	.44
2 Assurance Imply relationship has a future	.71	.11	-.02	-.04	.58
16 Openness Share feelings about partner with partner	.63	.16	-.10	.19	.71
18 Openness Disclosure of wants/needs	.61	.31	.08	-.23	.58
1 Assurance Stress my commitment	.61	.16	-.02	.01	.54
3 Assurance Demonstrate faithfulness	.60	.26	.04	-.08	.61
6 Affection Sentimental gifts	.48	-.11	.10	-.03	.19
14 Openness Encourage partner to share thoughts and feelings	.45	.33	-.06	.14	.65
4 Assurance Say “I love you”	.40	.20	-.07	.17	.44
25 Support Try to “be there” when needed	-.02	1.03	-.09	-.06	.87
26 Support Attend to partner’s issues	-.09	.99	-.03	.05	.89
28 Support Comfort partner when distressed	-.01	.95	-.06	-.06	.77
27 Support Try to be supportive and caring	.00	.81	-.02	.12	.80

(Continues)

Table 4 (Continued)
Pattern Coefficients for the Four-Factor Solution of the Relational Maintenance Scale Using Principal Axis Extraction with Promax Rotation

Item – Classification – Description	Factor I	Factor II	Factor III	Factor IV	h^2
24 Tasks Help partner complete tasks	-.11	.65	.25	.01	.53
23 Tasks Indicate willingness to help	-.03	.65	.20	.06	.61
17 Openness Share private information	.38	.50	.05	-.13	.58
10 Positivity Cooperative in disagreements	.13	.30	.02	.27	.40
19 Network Spend time with common friends	.17	-.16	.84	-.06	.70
20 SocNet Focus on common friends	-.03	-.01	.81	.09	.68
22 SocNet Include friends/family in activities	.03	.06	.75	.00	.62
21 SocNet Show willingness to network with partner's friends	-.03	.22	.66	.07	.66
13 Positivity Cheerful and positive behavior when communicating	-.08	-.01	.04	.94	.79
12 Positivity4 Courteous behavior when communicating	-.07	-.02	.02	.92	.76
9 Positivity1 Make interactions enjoyable	.24	.05	.00	.59	.64
11 Positivity3 Make partner feel good through compliments	.34	.20	-.04	.43	.72
Eigenvalues	13.61	1.78	1.31	0.98	
% variance explained	48.61	6.35	4.68	3.51	
Cronbach's alpha (α)	.92	.94	.88	.87	

Note. $N = 375$. Factor I = Affirmation. Factor II = Support and Comfort. Factor III = Social Networks. Factor IV = Positivity. h^2 = communality estimates. α = Cronbach's alpha for the salient pattern coefficients. Salient pattern coefficients are in bold.

Research Question 2

Using the composite scores from research question one, frequency distributions were conducted in order to address research question two: *What is the frequency with which relational maintenance behavior (RMB) enactments occur in computer-mediated communication (CMC)?* To interpret the percentage of RMB enactments in CMC, the composite scores were recoded³ to realign with the original Likert scale. Because research question two was focused on the macro level of RMB enactments, the text-based interpretations of the results are presented on a four-point scale: 1 - *never*, 2 - *occasionally*, 3 - *weekly* (an aggregation of “about once a week” and “several times a week”), and 4 - *daily* (an aggregation of “about once a day” and “several times a day”). **Table 5** details the percentage distribution of relational maintenance enactments on the original six-point scale.

Table 5
Percentage of Relational Maintenance Behavior Enacted in Computer-Mediated Communication

	(I) Affirmation	(II) Support & Comfort	(III) Social Network	(IV) Positivity
1 Never	8.80	4.27	10.67	1.07
2 Less than once a week	24.27	10.13	42.40	5.60
3 About once a week	28.80	20.27	27.73	12.00
4 Several times a week	22.13	28.53	14.13	23.47
5 About once a day	13.33	26.40	4.00	32.00
6 Several times a day	2.67	10.40	1.07	25.87

Note. $N = 375$. Parenthetical information represents the factor number.

³ Recall that multiple imputation was conducted and the aggregation of the datasets changed the data points from whole numbers. Because the examination of mean differences between groups does not rely on scale anchors for interpretability, the values recoded into whole numbers were used only for distribution analysis.

Results indicated that, of the four relational maintenance behaviors, positivity was used most frequently on a daily basis (58%), followed by support & comfort (37%), affirmation (16%), and social networks (5%). Affirmation was used most frequently on a weekly basis (51%), followed by support & comfort (49%), social networks (42%), and positivity (36%). For occasional use, social networks ranked first (42%), followed by affirmation (24%), support & comfort (10%), and positivity (6%). Finally, social networks (11%) was also most frequently reported as never being used, followed by affirmation (9%), support & comfort (4%), and positivity (1%). Overall, positivity was the behavior used most frequently for relational maintenance in CMC. Social networks—being the behavior reported most frequently to never be used (11%) or to be used only occasionally (42%)—was the most infrequent behavior to be utilized for relational maintenance in CMC.

Research Question 2a

Three one-way MANOVAs were conducted to address research question 2a: *Does the frequency with which relational maintenance behavior enactments occur in computer-mediated communication differ based on gender, cohabitation status, or relational stage and, if so, how?* The four RMS composite scores (affirmation, support & comfort, positivity, and social networks)—derived during analyses for research question one—were used as the outcome variables. There was a statistically significant main effect of relational stage, Wilks' $\Lambda = .95$, $F(4, 344) = 4.59$, $p < .001$, $\eta^2 = .05$, and cohabitation status, Wilks' $\Lambda = .93$, $F(4, 368) = 6.62$, $p < .001$, $\eta^2 = .07$, on the frequency of relational maintenance behavior enactments. However, there were no statistically significant main

effects on the frequency of relational maintenance behavior enactments based on gender, Wilks' $\Lambda = 0.99$, $F(4, 370) = 4.59$, $p = .41$, $\eta^2 = .01$.

One-way ANOVAs on the four outcome variables (affirmation, support & comfort, positivity, and social networks) were conducted as follow-up tests for relational stage and cohabitation status. As previously noted, a Bonferroni adjustment of $p < .001$ was used for interpretation of statistical significance. Results indicated that a statistically significant difference existed in three of the four outcome variables based on cohabitation status (differences in the use of social networks for relational maintenance were non-significant) and two of four outcome variables based on relational stage (differences in use of social networks and support & comfort for relational maintenance were non-significant). In all statistically significant comparisons for relational maintenance enactments in CMC, people who were seriously dating averaged higher than people who were married and people who were not cohabitating averaged higher than people who were cohabitating. However, because no statistically significant gender differences emerged, hypothesis two— females and individuals who are dating or not cohabitating with their partner will, on average, report using RMBs in CMC more frequently than individuals who are male, married, or cohabitating with their partner— was only partially supported. **Table 6** provides information on means and standard deviations of the RMS composite scores by groups as well as the ANOVA statistics.

Table 6

Descriptive Statistics and ANOVA Statistics for the Relational Maintenance Constructs by Groups

	(I) Affirmation	(II) Support & Comfort	(III) Social Network	(IV) Positivity	<i>N</i>
<i>M (SD)</i>					
Seriously Dating	3.37 (1.14)	4.06 (1.09)	2.70 (1.05)	4.78 (0.96)	160
Married	2.90 (1.21)	3.65 (1.37)	2.37 (0.94)	4.34 (1.28)	189
Cohabiting	2.91 (1.23)	3.69 (1.37)	2.45 (0.99)	4.38 (1.25)	233
Non-cohabiting	3.55 (1.09)	4.15 (1.01)	2.68 (1.07)	4.86 (0.96)	140
Male	3.28 (1.23)	3.95 (1.26)	2.63 (1.13)	4.59 (1.15)	144
Female	3.07 (1.20)	3.28 (1.26)	2.48 (0.96)	4.54 (1.19)	234
<i>Relational Stage (N = 349)</i>					
<i>F</i>	13.24*	9.38	9.78	13.13*	
<i>df2</i>	347.00	345.90	322.27	342.23	
η^2	.04	.03	.03	.03	
<i>Cohabitation Status (N = 373)</i>					
<i>F</i>	26.54*	13.71*	4.11	17.16*	
<i>df2</i>	319.52	355.78	371.00	348.98	
η^2	.06	.03	.01	.04	

Note. * $p < .001$. *M* = Mean. *SD* = standard deviation. *df* = degrees of freedom. η^2 = eta squared. For all ANOVA analyses, *df1* = 1.

Research Question 3

To address research question three (*What is the perceived impact of relational maintenance behaviors enacted in computer-mediated communication on relational attributes?*), percentage distributions for the eight perceived impact items were examined (see **Appendix N** for means, standard deviations, and correlation coefficients). The goal of this research question was to determine if the perceived impact of CMC usage for relational maintenance was positive, neutral, or negative. Therefore, the items were interpreted using a three-point scale: 1 – *negative impact* (an aggregation of high, medium, and low negative impact; ratings 1 - 3), 2 – *no impact* (a rating of 4), and 3 –

positive impact (an aggregation of high, medium, and low positive impact; ratings 5 - 6).

The percentage distribution for the original six-point scale is reported in **Table 7**.

Table 7

Percentage of Ratings for the Perceived Impact of Computer-Mediated Communication Items

	Com.	Con.	Liking	Love	Qual.	Sat.	Stab.	Trust
1 High Negative Impact	0.27	0.80	—	—	1.07	0.53	—	0.80
2 Medium Negative Impact	0.80	1.60	0.80	0.53	0.53	1.33	0.53	0.80
3 Low Negative Impact	3.20	6.13	2.93	2.67	3.20	3.20	3.73	3.73
4 No Impact	33.07	49.87	29.60	30.13	21.33	22.67	22.40	29.33
5 Low Positive Impact	19.73	21.07	25.60	26.40	29.33	29.60	21.33	21.60
6 Medium Positive Impact	27.73	16.00	29.07	26.40	30.40	27.73	32.00	26.40
7 High Positive Impact	15.20	4.53	12.00	13.87	14.13	14.93	20.00	17.33

Note. $N = 375$. Com. = Commitment. Con. = Control. Qual. = Quality. Sat. = Satisfaction. Stab. = Stability.

Results indicated that, in comparison to the other relational attributes examined, control (9%; followed by trust and satisfaction, each at 5%) was the relational attribute perceived to be impacted the most negatively by relational maintenance enactments in CMC. Relational quality (74%; followed closely by stability - 73%, and satisfaction - 72%), on the other hand, was perceived to be impacted the most positively by relational maintenance enactments in CMC. Control (50%) was the relational attribute for which most participants perceived their use of relational maintenance had no impact; this was followed by commitment (33%) and love (30%). Relational love (3%; followed by liking and commitment, each at 4%) was perceived to be impacted the least negatively by relational maintenance enactments in CMC, while control (42%; followed by commitment at 62% and trust at 65%) was perceived to be impacted the least positively. Consequently, hypothesis three— on average, individuals will perceive their CMC usage for the maintenance of their non-platonic relationship to have a positive impact on their

relational attributes—was only partially supported; overall, participants perceived their relational attributes, with the exception of control, to be positively impacted by their relational maintenance enactments in CMC.

Research Question 3a

Research question 3a asked, *Does the perceived impact of relational maintenance behaviors enacted in computer-mediated communication differ based on gender, cohabitation status, or relational stage and, if so, how?* To address this question, three one-way MANOVAs were conducted for cohabitation status, gender, and relational stage using the eight perceived impact items as outcome variables. The goal of this analysis was to test whether the perceived impact of relational maintenance enactments on relational attributes would have statistically significant differences between groups. There was a statistically significant main effect of relational stage, Wilks' $\Lambda = .92$, $F(8, 340) = 3.78$, $p < .001$, $\eta^2 = .08$, and cohabitation status, Wilks' $\Lambda = .85$, $F(8, 364) = 7.94$, $p < .001$, $\eta^2 = .15$ on the perceived impact of relational maintenance enactments. However, there was no statistically significant main effect on the perceived impact of relational maintenance enactments based on gender, Wilks' $\Lambda = .98$, $F(8, 366) = 0.85$, $p = .56$, $\eta^2 = .02$.

One-way ANOVAs, using the eight perceived impact items as outcome variables, were conducted as follow-up tests for relational stage and cohabitation status. As previously noted, a Bonferroni adjustment of $p < .001$ was used for interpretation of statistical significance. Results indicated a statistically significant difference existed for all perceived impact items for relational stage and all but one perceived impact item on

cohabitation status (control was non-significant; see **Table 8** for ANOVA statistics). In all statistically significant comparisons for the perceived impact of using CMC for relational maintenance, people who were seriously dating averaged higher than people who were married and people who were not cohabitating averaged higher than people who were cohabitating.

Table 8

ANOVA Statistics for Each Item of the Perceived Impact of Computer-Mediated Communication Scale

	Relational Stage (<i>N</i> = 349)			Cohabitation Status (<i>N</i> = 373)		
	<i>F</i>	<i>df</i> ₂	η^2	<i>F</i>	<i>df</i> ₂	η^2
Commitment	21.37*	347.00	.06	44.13*	371.00	.11
Control	7.73*	329.80	.02	4.32	371.00	.01
Liking	9.78*	347.00	.05	38.41*	371.00	.09
Love	12.09*	323.24	.03	25.14*	265.20	.07
Quality	8.67	305.85	.03	36.73*	371.00	.09
Satisfaction	7.80	296.52	.02	38.41*	244.38	.10
Stability	21.35*	347.00	.06	40.65*	371.00	.10
Trust	14.14*	347.00	.04	35.04*	371.00	.09

Note. **p* < .001. *df* = degrees of freedom. η^2 = eta squared. For all ANOVA analyses, *df*₁ = 1.

Research Question 4

Research question four asked, *why do individuals decide to use computer-mediated communication to enact relational maintenance behaviors?* A PCA was conducted to address this question. The correlation matrix of the 20 items, reflecting reasons for using CMC for relational maintenance, was found to be factorable; Bartlett's Test of Sphericity: $X^2(190) = 4209.54$, *p* < .001; KMO = .84. Correlation coefficients ranged from .01 to .95 (*Mdn* = .25). Item-level descriptive statistics (mean scores, standard deviations, and correlation coefficients) are presented in **Appendix O**.

Initial factor retention criteria indicated a five- (MAP and SEscree) and three-component solution (PA). A brief examination of the five-component solution demonstrated that it did not meet the a priori retention criteria (minimum of three items per component, structure/pattern coefficients with a .50 cutoff, no complex loadings, reliability estimates greater than or equal to .70, and interpretability). Because the five-component solution was not viable, only the three-component solution is reported.

The three-component solution had 16 of 20 items with salient pattern coefficients. Item 8, 16, 19, and 20 were not salient, while items 13 and 14 had complex loadings on Component I and Component II. Component I had five items with salient pattern coefficients ranging from .71 to .90 (*Mdn* = .87). All five items reflected a need or desire for partners to have access to one another and be able to communicate. Therefore, this component was labeled Desire for Partner Interaction (DPI). Component II was comprised of five salient items with pattern coefficients ranging from .51 to .93 (*Mdn* = .76). The two leading items were about the technical proficiency of the partners, with the remaining items revolving around technical attitudes and beliefs. Therefore, Component II was labeled Understanding and Views about Technology (UVT). Finally, Component III had four items with salient pattern coefficients ranging from .54 to .87 (*Mdn* = .68). The leading two items on this component reflected the benefits of reduced cues, while the remaining items captured other affordances of CMC. Therefore, Component III was labeled Technical Affordances (TA). The total variance explained by the three components was 54%. Component correlation coefficients ranged from .23 to .42 (*Mdn* = .38) and communalities ranged from .18 to .78 (*Mdn* = .55).

Conducting the PCA a second time, while excluding the six non-salient items (Item 8, 13, 14, 16, 19, and 20), led to the removal of two additional items (items 12 and 15); upon reanalysis, these two items fell below the minimum requirement for saliency. A third PCA, excluding the eight non-salient items, demonstrated that the component structure remained stable and all components met retention criteria. Reliability estimates of the scores ranged from .75 to .89 (*Mdn* = .88): DPI, $\alpha = .89$; UVT, $\alpha = .88$; TA, $\alpha = .75$. Pattern coefficients, after promax rotation, and communalities for the three-component solution of the reasons for CMC use (R4CU) items are reported in Table 9.

Table 9

Pattern Coefficients for the Three-Factor Solution of the Reasons for Using Computer-Mediated Communication Scale Using Principal Axis Extraction with Promax Rotation

Item Number - Description	Component I	Component II	Component III	h^2
3 Increasing my accessibility to my partner	.89	-.13	.11	.77
4 Increasing my partner's accessibility to me	.88	-.09	.10	.76
1 Keeping in touch with my partner	.87	-.10	.00	.69
2 Relaying basic information to my partner	.75	.00	-.12	.53
5 Relational planning with my partner	.71	.06	.04	.56
8 Geographic distance between us	.41	-.01	.07	.18
11 My partner's technical proficiency	-.19	.93	.03	.77
10 My technical proficiency	-.17	.92	.06	.78
9 My technical attitudes and beliefs	-.21	.76	.08	.53
14 The applicability of the technology in my life and relationship	.33	.56	-.03	.55

(Continues)

Table 9 (Continued)

Pattern Coefficients for the Three-Factor Solution of the Reasons for Using Computer-Mediated Communication Scale Using Principal Axis Extraction with Promax Rotation

Item Number - Description	Component I	Component II	Component III	h^2
15 The generation I was born into	.18	.52	-.09	.35
12 The ability to multitask	.22	.51	.11	.46
13 The convenience of use	.44	.50	-.15	.56
16 The amount of time to make contact	.41	.44	-.08	.48
19 The reason for the interaction	.08	.30	.24	.24
6 The ability to filter information	-.05	-.06	.87	.71
7 The ability to shield myself	.06	-.07	.81	.64
17 The resulting electronic paper trail	-.05	.11	.70	.55
18 The cost of using the technology	.12	.08	.54	.38
20 Partner's perception of CMC intrusion	.08	.15	.46	.33
Eigenvalues	6.57	2.54	1.72	
% variance explained	32.83	12.68	8.59	
Cronbach's alpha (α)	.89	.88	.75	

Note. $N = 375$. Component I = Desire for Partner Interaction (DPI). Component II = Understanding and Views about Technology (UVT). Component III = Technical Affordances (TA). h^2 = communality estimates. α = Cronbach's alpha for the salient pattern coefficients. Salient pattern coefficients are in bold.

Using the R4CU composite scores, percentage distributions were examined to determine the prevailing reasons individuals decide to use CMC to maintain their non-platonic relationship. To aid in interpretation, the composite scores were recoded⁴ to realign with the original scale anchors; the R4CU items were rated by participants on a

⁴ Recall that multiple imputation was conducted and the aggregation of the datasets changed the data points from whole numbers. Because the examination of mean differences between groups does not rely on scale anchors for interpretability, the values recoded into whole numbers were used only for distribution analysis.

seven-point scale from 1 (*no influence*) to 7 (*strong influence*). Because research question four was focused on factors that influence CMC usage for relational maintenance at the macro level, a 3-point scale was used: 1 - *no influence*, 2 - *weak/moderate influence* (an aggregation of the 2 - 4 rating), and 3 - *moderate/strong influence* (an aggregation of the 5 - 7 rating). **Table 10** details the percentage distribution for the components influencing participants reason for using CMC for relational maintenance on the original seven-point scale.

Table 10

Percentage of Ratings for the Reasons for Using Computer-Mediated Communication for Relational Maintenance Scale

	(I) DPI	(II) UVT	(III) TA
<u>Original Scale</u>			
1 No Influence	1.60	30.67	34.13
2	4.00	13.60	32.53
3	4.80	13.07	18.13
4	13.33	13.33	5.60
5	19.73	12.80	4.80
6	28.00	10.93	4.53
7 Strong Influence	28.53	5.60	0.27

Note. $N = 375$. DPI = Desire for Partner Interaction. UVT = Understanding and Views about Technology. TA = Technical Affordances.

Results indicated that, of the three R4CU components, DPI (76%) was reported as having the strongest influence on individuals' decision to use CMC for relational maintenance; followed by UVT (29%) and TA (10%). Technical Affordances ranked highest in the weak/moderate influence (56%) and no influence (34%) categories, followed by UVT (40%; 31%) and DPI (22%; 2%) respectively.

Research Question 4a

Research question 4a asked, *do the reasons individuals decide to use computer-mediated communication to enact relational maintenance behaviors differ based on gender, cohabitation status, or relational stage and, if so, how?* To address this question, three one-way MANOVAs were conducted for cohabitation status, gender, and relational stage. The three R4CU components—derived during analyses for research question four—were used as outcome variables. The goal of this analysis was to examine whether the reasons individuals enact relational maintenance behaviors in CMC with their partner would result in statistically significant differences between groups. A statistically significant main effect emerged for the reasons individuals use CMC for relational maintenance based on relational stage, Wilks' $\Lambda = .92$, $F(3, 345) = 9.96$, $p < .001$, $\eta^2 = .08$, and cohabitation status, Wilks' $\Lambda = .91$, $F(3, 369) = 12.48$, $p < .001$, $\eta^2 = .09$. However, no statistically significant main effect emerged for individuals' reason for maintaining relationships in CMC based on gender, Wilks' $\Lambda = .99$, $F(3, 371) = 0.81$, $p = .49$, $\eta^2 = .01$.

One-way ANOVAs, using the three R4CU items as outcome variables, were conducted as follow-up tests for relational stage and cohabitation status. As previously noted, a Bonferroni adjustment of $p < .001$ was used for the interpretation of statistical significance. Results indicated a statistically significant difference in DPI for both cohabitation status and relational stage. In addition, TA was statistically significant on relational stage (see **Table 11** for means and standard deviations for the R4CU composite scores as well as ANOVA statistics). On average, individuals who were seriously dating reported being influenced to use CMC for relational maintenance because of their DPI or

because of TA more so than individuals who were married. In addition, individuals who were not cohabitating also reported being influenced to use CMC for relational maintenance because of their DPI more than individuals who were cohabitating.

Table 11

Descriptive Statistics and ANOVA Statistics for the Reasons for Using Computer-Mediated Communication for Relational Maintenance Scale by Groups

	(I) DPI	(II) UVT	(III) TA	<i>N</i>
<i>M (SD)</i>				
Seriously Dating	5.80 (1.03)	3.23 (1.96)	2.37 (1.39)	160
Married	5.03 (1.65)	3.11 (1.94)	2.01 (1.18)	189
Cohabitating	5.10 (1.57)	3.11 (1.89)	2.09 (1.25)	233
Non-cohabitating	6.00 (0.93)	3.35 (2.05)	2.32 (1.36)	140
Male	5.46 (1.29)	3.36 (2.02)	2.28 (1.25)	144
Female	5.41 (1.51)	3.09 (1.91)	2.11 (1.26)	234
<u>Relational Stage (<i>N</i> = 349)</u>				
<i>F</i>	28.06*	0.33	6.95	
<i>df</i> ₂	320.22	347.00	313.72	
η^2	.07	.00	.02	
<u>Cohabitation Status (<i>N</i> = 373)</u>				
<i>F</i>	47.77*	1.26	2.91	
<i>df</i> ₂	370.90	273.61	371.00	
η^2	.09	.00	.01	

Note. * $p < .001$. *df* = degrees of freedom. η^2 = eta squared. For all ANOVA analyses, *df*₁ = 1. DPI = Desire for Partner Interaction. UVT = Understanding and Views about Technology. TA = Technical Affordances.

DISCUSSION

Overview

Generally, the purpose of this study was to explore non-platonic relational maintenance by examining behaviors enacted in CMC. More specifically, the goals were threefold:

- (a) to determine if a relational maintenance scale that was developed implicitly focusing on in-person interactions could be applied to CMC,
- (b) to explore how and why CMC has been used to facilitate relational maintenance, and
- (c) to examine the perceived impact of these maintenance behaviors on relational attributes.

These goals were addressed using four primary research questions to guide data analysis. This section will discuss the results reported in the previous chapter.

Factor Solution

Numerous scholars have indicated that the factor analysis procedure has been misused in the social science literature (Henson & Roberts, 2006; Russell, 2002). In other words, there are specific rules to conducting a factor analysis that should be followed to achieve reliability and validity of the scores. In many instances, these rules have been overlooked. In the case of the revised 29-item RMS, a primary rule was violated: a factor requires a minimum of three items to form a construct (Costello & Osborne, 2005; Zwick & Velicer, 1986). Based on this criterion, Factor VI from the revised RMS (task sharing)

is considered an inadequate factor. Unfortunately, the current researcher for this study was not well versed in factor analysis rules prior to data analysis. Had these factor analysis rules been known, a different measurement scale would have been chosen for data collection. Using the revised RMS, a seven-factor structure was expected. However, in forcing a seven-factor solution, not all of the RMS items were salient. Instead, a four-factor structure met the established EFA criteria.

This finding could suggest that the scale was not adequately designed (e.g., a minimum of three items per factor was not met). If a scale is determined to be reliable, then the factor structure should remain stable across contexts. On the other hand, because the scale was examined in a different medium, this finding could also suggest that people maintain their relationships differently in person than they do in CMC. One way to determine which of these two explanations is accurate would be to further explore the RMS. It would be necessary to conduct a comparative study for the scale where all participants report on their maintenance behavior for in-person interactions and for CMC interactions. If the in-person factor structure that emerges does not fit the original scale, then it could be concluded that the scale was not adequately designed. However, if the in-person factor structure does fit the original structure, then it could be possible that individuals maintain their relationships differently depending on if they are interacting in-person or in CMC. Comparing the factor structure for in-person interactions with that of CMC interactions could address this point. If the factor structure for in-person interactions holds, but the factor structure changes for CMC interactions, it could be concluded that individuals maintain their relationship differently based on the medium in

which they are interacting; depending on the medium, there could be different behaviors that individuals enact or different behaviors may dominate in each setting.

Ultimately, such a study would help pinpoint whether a new scale needs to be developed for relational maintenance overall or for relational maintenance based on the medium. It could be the case that if individuals are asked what behaviors they enact in CMC to maintain their relationship, a different set of behaviors will emerge. The question then becomes *what behaviors do individuals use to maintain their relationships during in-person and CMC interactions and are these maintenance behaviors identical regardless of medium?* This study aimed to be able to address whether RMBs were the same for in-person interactions and CMC interactions based on the RMS. However, it was only able to demonstrate that the factor structure of the RMS did not hold. Therefore, additional and more detailed research is needed.

Enactments of Maintenance Behaviors in CMC

This study found that positivity was the most frequently used maintenance behavior, while the use of social networks was the least frequently used behavior. Dainton and Stafford (1993) did a similar study that explored frequency of relational maintenance behavior enactments. In their study they uncovered 13 different relational maintenance behaviors. Of the 13, the first five overlapped with Stafford and Canary's (1991) original relational maintenance behaviors (positivity, openness, assurances, social networks, and sharing tasks). Dainton and Stafford's (1993) results also found that, of the five, positivity (24%) was the most frequently reported behavior and social networks

(1%) was the least frequently reported behavior. Therefore, their study can be used as partial support for the findings in this study.

Stafford (2003) noted that previous studies have theorized and demonstrated that the frequency and type of relational maintenance behavior enactments are influenced by antecedent factors (e.g., individual differences and relationship type). However, these studies often did not provide the ranking of the relational maintenance behaviors based on frequency of use (Dainton & Stafford, 1993, is an exception). If frequency counts were provided, little explanation was given for why certain relational maintenance behaviors dominated while others did not. The reason frequency ranks of relational maintenance behaviors may be difficult to explain is because there is often little distinction made between the types of behaviors being explored; though, recent literature has begun to distinguish between routine and strategic relational maintenance behaviors.

Whether relational maintenance behaviors were used routinely or strategically should influence the frequency with which the behaviors are enacted; routine behaviors should have a higher level of frequency because they are less deliberate. Therefore, in the current study, it could be that positivity ranked the highest in usage because (as shown in Dainton & Aylor, 2002) it is used more as a routine behavior, while social networks ranked the lowest because it is used more as a strategic behavior. On the other hand, Dindia (1991) found that social networks were used more frequently as a way to intensify a relationship rather than to maintain it. Therefore, the low use of social networks could be because the primary goal of using social networks is not for relational maintenance. Because the current study did not differentiate between the relational maintenance categories (intent, focus, effect, and stimulus; see **Table 1**) or relational maintenance

goals, there is no way to provide a reliable explanation for why the relational maintenance behavior enactments emerged in the order of frequency they emerged.

Perceived Impact

Most research studies that explore relational maintenance seek to uncover (a) how relational maintenance behaviors enacted in a relationship can be used to predict relational attributes, (b) how individuals perceive their own use of relational maintenance behaviors, or (c) individuals' perception of their partner's relational maintenance behavior (e.g., Canary & Stafford, 1992; Canary, Stafford, & Semic, 2002a; Stafford & Canary, 1991; Stafford, Dainton, & Haas, 2000). Aside from understanding the relationship between relational maintenance enactments with relational attributes or perceptions of the frequency of relational maintenance enactments, it is important to understand individuals' perception of how particular relational maintenance behaviors are impacting their relationship.

When it comes to relational maintenance in CMC, individuals' perception of behaviors enacted in their relationships by themselves or their partner may play less of a role than the perceived impact of relational maintenance behaviors in CMC on relational attributes. In other words, perceived impact of CMC usage may influence behavior selection and frequency of relational maintenance behavior enactments, which (as previously stated) has also been linked to relational attributes. Therefore, this study collected data on individuals' perception of the impact of relational maintenance behaviors, enacted in CMC, on the attributes of their relationship.

Interviewee 1, a 22 year-old female, made a comment that summarized well how relationships work: *“a lot of people say that a relationship is like having a plant; if you don’t water it every day, then it’s going to die.”* However, when it came to using electronic communication, participants had different experiences and beliefs about how people should “water their plants.” In addition, varying perspectives emerged about how CMC impacts relationships; responses were distributed across the spectrum, with responses ranging from positive, to neutral, and to negative.

Survey results indicated that, for positive impact, relational quality, stability, and satisfaction were rated as being impacted the most positively by RMBs enacted in CMC, while control, commitment, and trust received the lowest positive rating. For negative impact, control, trust, and satisfaction were rated as being impacted the most negatively by RMBs enacted in CMC, while love, liking, and commitment received the lowest negative rating on the survey. As for the relational attributes perceived to be uninfluenced by RMBs enacted in CMC, control, commitment, and love were reported with the highest frequency on the survey. Below, interview responses are elaborated to provide commentary support for some of the statistical survey findings on relational attributes.

Interviewee 12, a 31 year-old female, noted that *“things like text messaging, and answering machines, and voicemail, and email, and all that enables us to be able to make different points of contact.”* The question is how do these communication opportunities impact relationships? Interviewee 2, a 27 year-old male, said *“I feel like I have a lot more control in the relationship through an electronic medium. You can catch your mistakes or things that might offend the other person by writing something and reading it, as opposed to thinking something and saying it or blurting it out.”* Interviewee 1 had a similar view.

She noted that “*sometimes, it’s very hard to get him to see things my way. So, I feel that I need to break it down to him in a way that he cannot sit there and rebuttal with me about what I say.... It’s more like my way of getting my point across.*” However, other interviewees did not necessarily view the technical affordance of filtering thought to be a positive thing. For example, Interviewee 5—a 23 year-old male—made the following comment, which could be applied to any non-visual electronic communication:

Arguing over text message is cheating because you don’t have to immediately respond. If you’re in front of someone’s face, you can automatically read their body language, you can read their actions, and you can read their reactions to what you say. Going through text message, you kind of have to wait till the person is ready to respond. You can think of a response, you can prepare yourself on how you want to say it, and it’s a safeguard. You can not be as honest with that person as you like and they can’t tell because it’s over text message.

Although, Interviewee 2 said he likes to use CMC for controlling what he says as well as how what he has to say is perceived (“*using email helps me to filter out anything negative that I want to say and have it portrayed as positive or [it helps to] try to come across and be direct as far as what I want to communicate with the person.*”) he also held somewhat similar views to Interviewee 5 as he felt that “*someone writing me an email or even calling me on the phone might seem a little impersonal. It might seem a little bit fake to me. You have a higher chance of someone lying to you a lot easier.*” This demonstrates the double standard that exists in how CMC usage is perceived and how CMC is used by the same individual. Even though individuals may be apprehensive about being lied to

through CMC, some still use CMC as a way to mislead others or misrepresent themselves.

Interviewee 11, a 33 year-old female, noted another contradiction that arises due to CMC usage for relational maintenance:

I see there are two different parallels here that if you're not careful they can go off into two different worlds. Where there's your real world self and then there's your online self where you've got all these mechanisms for maintaining your friendships or non-platonic relationships via IM, email, Facebook, you know, or even chat. Where you've got this whole identity maintenance scheme that may hardly ever really convene in face time.

Interviewee 9, a 20 year-old female, also believes that people behave differently across different media. However, she views this in a more positive way; she thinks that using communication technologies “allows you to learn more about the person... it gives you more freedom and more ways to talk to that person... the more technologies they use than the more opportunities you have to talk to that person.” Interviewee 13, a 25 year-old female, also had a slightly different perspective from Interviewee 11 that echoes the Interviewee 9; she believes that technology is a tool that can help someone understand who a person really is. Her view is that “you can tell how secure somebody is a lot of the times by electronic communication... you start to see people's true colors and who's worth it, who feels that you're worth it, and who can stick through it.... The technology and the situation exposed it.” Therefore, even if individuals have multiple identities (as noted by Interviewee 11), another individual can experience that person holistically because of the various avenues of communication afforded to them.

Interviewee 11 continued by saying “*we engage differently face-to-face than we do online whether it’s email, IM, or even telephone and there are pieces missing from the communication that detracts from the richness of the communication. And, because of that, people can take the wrong thing or get the wrong impression and run with it.*” This, again, raises the concept of reduced cues. Interviewee 12 believes that “*with technology, as you get more comfortable with it, some people have better intuition with reading between the lines or kind of picking up on the way other people use it to interact.*”

Nonetheless, there is really no way to know whether this “intuition” is accurate.

Interviewee 5 noted just that: “*no matter how many LOLs, or hugs, or smiley faces, or frown faces you put in a text message, you can’t get a true vibe from someone via a text message.*”

The notion of reduced cues was raised again by Interviewee 1 (and many other interviewees). She felt that using CMC “*can lead to bigger problems that are not worth it*” because of the misinterpretations that arise. One interesting observation she made was that these misunderstandings only began after her relationship transitioned from platonic to non-platonic, “*when me and him were friends, I could just say whatever and it was cool. It was never a misinterpretation. But, now that we are actually in a relationship it’s kind of more personal.*” This demonstrates, again, that relationship type plays an important role in interpreting CMC and the impact it has on relationships.

As we know, relationships often transition through different stages, which include changes in the geographic distance between partners. Interviewee 13 discusses her transition from a short distance relationship to a long distance relationship:

We've actually grown closer in a completely different way because it's like a whole other layer to our relationship is now surfaced and is now being altered and nurtured because we can't see each other, we can't feel each other, we can't do any of that. So, now I feel like, in a way, we're getting to really really know what's at the gut of us. Because all we can do is talk. That is something that I think is good about electronic communication; not necessarily being in the same area as the person that you're involve with. Because, a lot of times, you get caught up in just seeing the person and it just becomes habitual. It doesn't become anything else.

However, everyone's communication style is not effective in strengthening their relationship. Interviewee 14 (an 18 year-old male) had this to say, *"People have used email or text message as an out to avoid confrontation. So, the negative in that is that it avoids that type of human confrontation that I think you personally grow from and develop as a person. Some people just naturally develop into introverts because they rely on text messaging, instant messaging, and email to say things that they probably should say face-to-face."* Therefore, while CMC usage impacts relationships, it also impacts individuals (who then end up being part of a relationship).

An example of this confrontation avoidance is demonstrated in a couple of interviewees. Interviewee 16 (a 28 year-old male) said *"if [my partner and I] had a disagreement, and she still wanted to talk about it, her method of communication would be to call me. I wouldn't answer the phone. I would just communicate through text messaging."* This scenario demonstrates how an individual's intent (e.g., avoidance of confrontation) has an impact on the medium selected for communication. As noted by

Interviewee 11 *“it certainly depends on what relationships I’m maintaining or what my reason for contacting people are that dictate my choice of the media.”*

Another example of avoiding confrontation comes from Interviewee 15, a 26 year-old male, who discussed in detail the way him and his girlfriend use CMC as a way to traverse disagreements:

The first two or three days when we have an argument we will kill each other. Therefore, it is better to stay away from each other and text to let our brain focus on the problem so we can read what we’re saying and then we can say it with more clarity. Because, I find that sometimes when you speak to somebody you lose the clarity and you let your emotions take over. At least when you write you’re more controllable; what you say and the words that you use. Therefore, your point can be made much more clearer and much more concise. So, you don’t go and try to break off into a whole wide range of things that did not need to get brought up.... We both know that texting is not the way to figure out a problem. But, we do it as a way to ease out the heightened level of anger we both feel. And then we talk.

The former comments demonstrate the complexity involved in maintaining multimedia relationships. For some individuals using CMC for relational maintenance has a positive impact, while for others it does not. The reason this CMC usage has been perceived as having a particular impact is dependent on a number of things (e.g., individual differences or relationship stage). However, regardless of how this use is perceived, individuals continue to use CMC with their partners. The upcoming section will discuss some of the reasons for this behavior.

Reasons for Usage

Data analysis of the R4CU items found that Desire for Partner Interaction was the strongest reason for individuals' decision to use CMC for relational maintenance.

McGlynn (2007) found something similar. In her study, an overwhelming 93% ($n = 183$) of participants indicated that their desire to increase relational connection was a reason for using CMC in relationships. Therefore, McGlynn (2007) concluded that "CMC [is] a driving force behind enhanced relational closeness," (p. 14). The current study results, therefore, demonstrated the same finding. Interviewee 4, a 38 year-old female, took this notion of relational closeness a step further by indicating that "*it's not always just for the closeness. I think it's also for just keeping each other informed and up to date so that what's going on in our lives is somewhat transparent.*" This means that a desire to interact with one's partner and feelings of closeness are often counterbalanced with life outside of one's relationship. Interviewee 1 emphasized this point:

Since our lives are more complex than what they used to be in the past, I think that people are relying more on electronic communication to keep their relationships alive. So, I cannot just say it's distance. It's not just distance. I think our lives are just forcing us to see different methods of getting in touch with people.

In fact, quite a few interviewees indicated that, while they did have a desire to interact with their partner, their reason for using CMC was also linked to their daily schedules and how busy life had become. In what McGlynn (2007) calls *augmented control of time*, "CMC allowed [users] to balance relational needs while preserving their time for personal responsibilities," (p. 17). Similar concepts emerged in the interviews for

this study. In fact, Interviewee 7, a 31 year-old female, almost said just that: *“It’s nice to be able to communicate with each other without it impacting our schedules.”* McGlynn (2007) noted that “some individuals feel inclined to maintain relationships, but do not wish to invest face-to-face time in the process,” (p. 18). The level of truth in this comment is likely dependent on relationship type, but it helps to explain a number of comments made by several other interviewees. For example, Interviewee 7 expanded by commenting on her occasional communication preference with her husband:

I’d rather send an email to [my husband] than talk to him because sometimes talking is more work and I don’t want to use Skype ‘cause I don’t want people seeing what I look like. So, I think technology kind of allows you to control the communication a little bit in terms of how and when you can communicate.

Interviewee 6, a 44 year-old male, felt similar about investing face time, but for different reasons. He noted that *“it takes a little bit of the pressure off....you could sort of just let the conversation meander. Silence doesn’t seem like it’s as awkward in that particular context... Sometimes you can just roll out of bed and get onto the phone. You don’t have to feel like you have to pretty up or anything like that.”* Finally, Interviewee 5 noted that *“[electronic communication] allows me a convenient way to keep in touch throughout the day without having to be in a quiet place, stop what I’m doing, stop for 30 minutes, you know, all that kind of stuff. I can kind of multitask at the same time with those devices.”* Therefore, while individuals seem to have this strong desire to interact with their partner, they also have a strong need to do so in a way that does not interrupt life outside of their relationship. Therefore, using CMC becomes an excellent way to do

that because of its technical affordances (e.g., the ability to multitask, immediacy, reduced cues, etc.).

Frequency and Group Differences Comparison

The three sub-questions for this study (RQ_{2a}, RQ_{3a}, RQ_{4a},) sought to explore the differences that existed in the variables from each of the three measures (RMS, PI, and R4CU) based on participants' relational stage (married vs. seriously dating), cohabitation status (living together vs. living separately), and gender (male vs. female). Upon examination of results, there were a couple of noteworthy points of comparison to discuss.

First, there were no significant differences found in any of the measures based on gender. In other words, both males and females had similar responses on the survey questions. Based on previous literature, this result is unexpected; as Shea and Pearson (1986) said "the evidence that gender impacts many aspects of communicative behavior is overwhelming," (p. 361). Many scholars have noted that females are supposed to be more relationship oriented than males and, as a result, females should engage in more relational maintenance than men (e.g., Aylor & Dainton, 2004; Canary & Stafford, 1992; Dainton & Stafford, 1993; Ragsdale, 1996; Shea & Pearson, 1986; Stafford & Canary, 1991). The non-significant difference between males and females could be because each group was retained as a macro-level group. In a lot of relational maintenance research gender is explored with homogenous groups (e.g., married individuals, dating individuals, friends, etc. Therefore, if gender was broken down based on relational status, differences between gender groups might have been detected.

However, one must also question whether relational maintenance literature on gender is accurate. Aylor & Dainton (2004) and Stafford, Dainton, & Haas (2000) conducted a research study exploring gender roles and biological sex. Both found that psychological gender is more important than biological sex in understanding maintenance behavior enactments. However, when scholars examine participants' "gender" there is often no way of knowing whether what is really being explored is biological sex or stereotyped gender roles. The current study is guilty of the same oversight. The question used for gathering information on this topic asked participants to report their gender, with options being male or female. However, male and female are examples of biological sex while masculine and feminine are examples of gender (Aylor & Dainton, 2004; Stafford, et al., 2000). This important distinction and data collection error could be an explanation for why non-significant results were found in the current study. However, it could also be the reason for the conflicting results in the literature (for a summary of some gender findings, see Dindia, 2000).

Second, for all group evaluations, individuals who were seriously dating or non-cohabitating averaged higher than individuals who were married or cohabitating. This finding is less surprising. Dainton and Stafford (1993) conducted a comparison of dating and married couples. Their results found only one significant difference; dating individuals reported using mediated communication more frequently than married individuals. Therefore, if married individuals do not use mediated communication as much as dating individuals, then it is logical that dating individuals would enact more maintenance behaviors in CMC because they use it more.

One factor that might be clouding these findings is cohabitation status.

Interviewee 6, while reflecting on his relationship, had this to say: *“when she was living in her place and I was living in mine, we used devices to stay in touch, to know what’s going on, and things like that. Now, we’re [using devices to] coordinat[e] more.... So, I do think living together changes the way you use [CMC] because you have different purposes. More integrated purposes.”* It is often assumed that individuals who are married are cohabitating and individuals who are dating are non-cohabitating. However, there are individuals who are married and living apart just as there are individuals who are dating but living together. Therefore, one must ask whether findings related to relational stages in relational maintenance research are related to cohabitation status or marital status. This study sought to make that distinction. However, because there were only a few individuals who were cohabitating but unmarried (22%) or non-cohabitating but married (6%), the distinction could not be made in a significant way.

Study Limitations

Although this study has made noteworthy contributions, there are limitations that should be acknowledged in the areas of recruitment, participants, data collection procedures, measures, as well as the limitations of the researcher herself. First, beginning with the researcher’s network, participants were recruited through snowball sampling. While this sampling method is common, the fact that it resulted in a fairly homogenous participant pool (primarily Caucasians participating in high quality non-platonic relationships who were well educated and residing in the United States) limited generalizability of the findings. However, this study was similar to previous research in

relational maintenance as there was an underrepresentation of minorities and an overrepresentation of women. The researcher attempted to account for this typical representation by targeting individuals in particular samples (e.g., recruiting in an African American church) and asking participants to provide the contact of other eligible participants.

Second, the web-based data collection method utilized in this study lacked the control that in-person data collection offers. In other words, (a) there was no way of knowing whether individuals completed the survey more than once, (b) there was no way to know whether participants discussed the study before or during survey completion in a way that could have influenced survey responses, (c) there was also no way to ensure individuals completed the entire survey. However, given the nature of web-based surveys, this limitation is expected; online surveys are still a standard data collection method.

Third, participants were asked to report on their past, present, and future behavior as well as their perception of the outcome of their behavior. No steps were taken in this study to verify whether the reported behaviors were actually executed or what the actual influence of the participants' behavior was on their relationship. In addition, these collected data were limited by the participants' ability to recall their previous behavior with their partner. However, while this approach was a study limitation, it is a fairly common method in the relational maintenance literature.

In addition, the fact that this study did not delineate between the different types of CMC is also a limitation. A number of interviewees hinted that the affordances of the technologies available played a role in their selection of communication method as well

as the maintenance behaviors they enacted with their partner. For example, Interviewee 15 said that “people use text messages because they’re less intrusive; you can look at them while you’re at work, you can look at them while you’re talking to somebody, you can look at them while you’re at dinner.” At the same time, a number of other interviewees indicated the reduced cues of text-based communication meant misinterpretations. Therefore, “having serious conversations that pertain to the relationship, should never be dealt with on AIM, Facebook, MySpace, Twitter, or anything like that,” (Interviewee 5). Therefore, it is important to distinguish between the types of ICTs that individuals use for CMC and which RMBs dominate in each of these technologies.

Also, this study made no distinction between the stages a single relationship can traverse. As previously indicated, relationships can change from being geographically close to geographically far for periods of time; this was the case for some interviewees in this study. However, individuals were only asked to reflect generally on their CMC-RMBs with their partner. Therefore, there is no way of knowing how CMC-RMB usage changes as relationship stages change within a single relationship or if participants were thinking about different periods in their relationships while answering the questions. As a result, the survey findings may be convoluted.

Finally, the researcher’s formal and informal education and training (e.g., the ability to develop a survey instrument and do statistical analysis) might also be considered a limitation of this study. Prior to data collection, the researcher lacked the knowledge and understanding she now possesses of methodological concepts that may have influenced the study procedures and outcomes. For example, some of the survey

items used in the study were developed by the researcher and may not have been written effectively to capture the desired information (e.g., the reasons for CMC use items and the perceived impact of CMC items). In addition, the researcher unknowingly altered the order of the items in some of the pre-established measures, which could have influenced responses. The researcher's knowledge and understanding of CMC, relationships, and relational maintenance also played a role in the interpretation of the study findings. However, efforts were made to neutralize any biases from the researcher that could have influenced the outcomes of this research.

Methodological Discussions

All researchers encounter issues throughout the execution of their research projects. In this study, there were a number of modifications that were made to the original plan due to issues I encountered. First, some of the research questions I started with changed after data collection. There were two reasons for this: (a) the question, as written, did not address what was intended or (b) the survey instrument disseminated did not collect all the information required to address the questions. For example, an original research question asked *what maintenance behaviors do individuals enact via CMC?* This question was rewritten to ask *what is the factor structure of the relational maintenance scale in the context of computer-mediated communication?* For this particular question, little information was provided by interview or survey participants when asked to provide qualitative data on the behaviors they enact. Instead, the primary source of data came from the RMS items on the survey. Therefore, the focus of the

question shifted to the factor structure of the RMS rather than the factor structure being a partial answer to the broader question.

In addition, this study was supposed to address love style and attachment style as individual differences. Attachment style was removed as a component because data required for accurate analysis was unknowingly excluded from the survey. All necessary information for love style was collected. However, the missing data problem described earlier made the analysis of this data too complex to be included with the current study. Therefore, love style was also eliminated as a component of individual differences in this study. It is anticipated, however, that it will be analyzed in subsequent studies.

Research Contributions

Despite the aforementioned study limitations and methodological issues, this research adds value to the field in multiple ways. Through the achievement of the study goals (as indicated in the “Research Goals” section), this research has made the following contributions:

- Increased knowledge on CMC and relational maintenance research through the exploration of non-platonic relationships established in physical environments.
- Demonstrated that the revised relational maintenance typology, presented in Guerrero & Bachman (2006), may not be appropriate to apply to non-platonic relationships maintained using CMC.
- Established support for findings in the existing literature.
- Provided novel information to advance understanding about (a) how and why CMC is being used in interpersonal relationships for maintenance, (b) the

perception individuals have of the impact of CMC on their relational attributes, and (c) the reasons individuals decide to use CMC to maintain their relationship.

These research contributions and continued research in the area of multimedia relationship maintenance are of practical importance to members of society as well as scholars in the field of psychology. Societal members could benefit from increasing their awareness of how their CMC usage can (and does) positively and negatively impact their relationships. Increased awareness could improve individuals understanding about the relational maintenance behaviors that could be used to achieve their relational goals. In addition, individuals' appreciation for individual differences between themselves and their partner may be positively impacted. Counseling psychologist or psychiatrists could utilize the information from research on multimedia relationships to coach couples on how to use relational maintenance behaviors in CMC constructively. These professionals could also use this research data to help couples to pinpoint and avoid the destructive maintenance behaviors that result in the breakdown of their relationships. Ultimately, such results could have the potential to positively influence relational outcomes like marriage rates and divorce rates.

Aside from providing information on behavioral changes for individuals, continued research in this area could have practical implications for design scientist and product marketers. This research on multimedia relationship maintenance can explain technical advancements or modifications that could be made to enhance benefits and reduce negative impacts of CMC usage on interpersonal relationships. As a result, the design of technologies geared toward interpersonal communication can be improved and technologies specific to relational maintenance can be developed. Finally, because there

will be a better understanding of individuals relational maintenance behaviors and the reasons they use CMC for maintenance, individuals who market these products will be able to more successfully target populations of interest

Recommendations for Future Research

This present study took an initial step toward understanding relational maintenance enacted via CMC. Future research should continue to address the guiding research questions posed in this study: (a) How and why is CMC used to maintain non-platonic relationships and what impact does that use have on relational attributes and (b) how do behavioral enactments in CMC influence relational maintenance? One important finding demonstrated in this study is that individuals privilege mediums based on the content and intent of their interaction. Therefore, future research should further examine why this occurs.

While the current study used a onetime survey that asked participants to recall or anticipate their RMBs with their partner, future research should go a step further by using longitudinal, experimental, or observational studies as well as studies that gather the actual content of the CMC interactions being investigated. These research methods have the ability to provide a way to better understand the process of relational maintenance in CMC. It is also not enough to examine only half of the relationship (i.e., one partner). Future research should aim to study couples as a pair. This means that researchers should not only explore the RMBs that are being enacted, but they should also examine how the partner on the receiving end is interpreting and responding to that behavior.

In order to really understand how this research can be used to benefit relationships, it is important to determine causality between RMB enactments and relational attributes. Therefore, researchers should have a goal of determining which relational attributes influence which RMBs are enacted with one's partner and which RMB enactments impact the relational attributes that exist in the relationship (and how). In addition, a comparison should be made between the RMBs scholars have found to predict relational attributes and how individuals believe RMBs impact their relationship. If the results do not positively correlate then relational partners will know that their RMB enactments are having the opposite impact on their relationship and that behavioral modifications could help improve their relationship. Scholars could then find a way to monitor partner's RMBs to determine how effective RMBs actually are in maintaining relationships.

In order to get an accurate picture of RMBs in CMC, it becomes relevant to distinguish between the different ICTs that are used to facilitate CMC and their varying functionality. Therefore, researchers should determine which ICTs are used for relational maintenance, how, and why. Knowing which ICTs dominate is also important for understanding the market and which technologies might require design alterations or enhancements to assist in effective relational maintenance.

As previously indicated, RMBs can be categorized in various ways (intent, focus, effect, stimulus; see **Table 1**). This study, like many others, examined the prosocial maintenance behaviors, which fall within the "focus" category. Therefore, researchers should direct their attention to the other types of RMBs in order to determine what distinctions exist. For example, relational motives and the intent behind behavioral

enactments (or the lack thereof) play a large role in the interpretation of maintenance behaviors and their outcome. Therefore, scholars could investigate the following questions: how does the intent or expectations of the RMB enactor influence the RMB s/he selects or the modality s/he chooses for the behavioral enactment? And, are there any antisocial behaviors individuals utilize that aid in relational maintenance? If so, what are they? Examining these types of questions will aid in the completeness of a relational maintenance model.

This study was able to obtain a general sense of the impact participants believed CMC interactions had on the maintenance of their relationship. However, information was not collected about the effect of specific relational maintenance behaviors on specific relational attributes. While the current study found that most individuals' perception of the impact of RMBs were constructive, the majority of participants surveyed were in a high quality relationship. Therefore, to expand these findings, researchers should explore and compare relationships of varying quality.

Future research should also examine individual differences (e.g., attachment style or love style) in the context of RMBs enacted in CMC (e.g., how do individuals' attachment styles or love styles influence their use of RMBs in CMC?). It would be interesting to uncover whether distinctions exist in RMBs enacted in CMC based on cultural, ethnic, or racial differences. Because the majority of participants in this study were Caucasian, it prevented this type of analysis from being conducted.

Finally, future research should strive to develop a relational maintenance measure for RMBs enacted in CMC. The current study demonstrated that the revised RMS for in-person interactions cannot be applied to CMC. However, it did not demonstrate which

behaviors individuals use in CMC to maintain their relationship. Instead, it noted which of the behaviors on the revised RMS individuals use most frequently. Therefore, like Stafford and Canary (1991) did when they created their relational maintenance measure, researchers should collect data on the following question: “What behaviors do you use [in CMC] to maintain your relationship?” However, this question should be taken a step further to include the different types of RMBs (i.e., those listed in Table 1) that exist.

CONCLUSION

Effective communication is an essential process to successfully maintain high quality relationships. This communication can occur vocally, non-verbally, or through an exchange of writing in a physical or an electronic environment. What is being communicated (e.g., content of message), where it is being communicated (e.g., medium or environment), why it is being communicated (e.g., intent/motivation), how the communication is being interpreted, and who is involved in the dialogue often determines if the interaction is effective and how the relationship is impacted. Rusbult and Van Lange's (2003) statement is an excellent summation of this point:

To fully understand interaction we must begin by analyzing precisely what a situation affords—the sorts of cognition and affect that are probable, the dispositions, motives, and norms that are activated, and the interpersonal processes that are relevant to interaction. (p. 370)

I would agree with Interviewee 9 (a 20 year-old female) that the simple existence of ICTs and availability of CMC provides opportunities where opportunities did not exist: An ICT “gives you more freedom and more ways to talk to that person... the more technologies they use than the more opportunities you have to talk.” Based on people's personality type, they may prefer to use CMC for some interactions but communicate in-person for others. Not only this, but the type of ICT and what it affords (e.g. synchronicity or vocal cues) can impact the media selected for interaction. This is demonstrated in the following statement by Interviewee 12 (a 21 year-old female): “the reason I said certain things in email is because I didn't feel comfortable saying them to

him... And part of it had to do with my insecurity about some of the things I needed to say and not being bold enough to verbalize them...” Therefore, CMC can be used to offset personal deficiencies and aid in establishing healthy relationships. For example, there are some people who are uncomfortable talking about death in person. Therefore, they may be more likely to provide their condolences electronically. Without these electronic methods of communication, these people may not have the opportunity to provide their condolences in a comfortable setting and may simply avoid the situation completely. While not addressing a personal death might be close to impossible in a non-platonic relationship, the ability to remove the awkwardness and address it in a comfortable setting could be a tremendous help.

The current research study took the stance that using CMC for relational maintenance can be positive for non-platonic relationships. However, interpersonal interactions are messy and not always positive. Therefore, the negative impacts of CMC cannot be ignored. Returning to the previous example of addressing a personal death, using CMC to express condolences could also have negative implications for a non-platonic relationship because an individual could use CMC to avoid the awkwardness and discomfort of addressing the situation in person. Therefore, they may never grow in that area and may never develop a level of comfort with it. This inability to discuss a topic of both relevance and importance to one’s partner could result in the ending of the relationship.

Although this study did not focus on negative behaviors, there were a number of antisocial behaviors that were shared by interview participants that support the previous statements. Interviewee 14 (a 28 year-old male) had the following to say:

People have used email or text message as an out to avoid confrontation. So, the negative in that is that it avoids that type of human confrontation that I think you personally grow from and develop as a person. Some people just naturally develop into introverts because they rely on text messaging, instant messaging, and email to say things that they probably should say face-to-face.

This concept has merit and was confirmed by Interviewee 1 (a 21 year-old female): *“If I’m upset at something that was said in the conversation, I tend not to call him back. I tend to send him an email... I feel like I express myself better in writing than sometimes, you know, talking.”* And, simply to demonstrate that this type of avoidance occurs regardless of gender, Interviewee 16 (a 28 year-old male) said the following, *“If we had got into a disagreement or argument, and I didn’t feel like talking and I saw that she was calling, instead of picking up the phone I would just send a text message.”*

Negative impacts are not only the result of interactions between couples, but also the result of these individuals’ interaction with others. For example, while there are dating websites that allow individuals to initiate a romantic relationship (e.g., match.com and eharmony.com), there are also websites that were designed to allow individuals who are already in romantic relationships to cheat (e.g., AshleyMadison.com and IllicitEncounters.com): *How are technologies that are designed for “bad” influencing relationships?*

Due to the increase and permeation of CMC interactions and Internet usage, CMC is (and will continue to be) an area of interest to scholars. Therefore, more scholars should investigate how members of society use CMC to maintain relationships as well as

when and why they choose to use CMC in this manner. Additionally, the impacts of CMC usage on relationships must also be explored. This study is one of the first to add to this important body of literature through its examination of relational maintenance via CMC in non-platonic relationships. Future researchers should continue exploration in this area with the understanding that most individuals use mixed-media for relational maintenance. Therefore, a holistic view is necessary for accurate interpretations.

O'Sullivan and colleagues (2004) "*argued that communication channels' characteristics are best understood as communicative resources that individuals could use (or could learn how to use) tactically and strategically in their interactions as guided by their social and relational goals*" (p. 468). I make the same argument and have taken a step toward assisting societal members in maintaining successful relationships through increased understanding of their relational maintenance through CMC. Individuals should strive to understand and appreciate the individual differences between themselves and their relationship partners. This attitude will encourage individuals to maintain and develop their relationship in a healthy and satisfying way.

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APPENDIX A:

Demographic and Relationship Background Information for Phase 1

Interview Participants

Table 12

Demographic Information for Phase 1 Interview Participants

Interviewee #	Sex	Age	Race	Education	Social Status
1	F	22	H	BD	Professional
2	M	27	H	BD	Professional
3	F	29	O	MD	Student
4	F	38	C	MD	Student
5	M	23	A	MD	Professional
6	M	44	C	MD	Student
7	F	31	C	DD	Faculty
8	M	39	C	DD	Student
9	F	20	O	HD	Student
10	F	22	A	BD	Professional
11	F	33	A	DD	Post Doc
12	F	31	O	MD	Student
13	F	25	A	BD	Academic
14	M	28	A	BD	Professional
15	M	26	A	BD	Student
16	M	28	A	BD	Student

Note. F = Female. M = Male. H = Hispanic. O = Other. C = Caucasian. A = African-American. BD = Bachelor's Degree. DD = Doctorate Degree. HD = High School Diploma. MD = Master's Degree.

Table 13

Relationship Background Information for Phase 1 Interview Participants

Interviewee #	Status	Stage	Monogamous	Cohabitation	Distant	Months Distant	Met Partner	Primary Interaction
1	IAR	SD	Yes	2	Yes	15	IP	2
2	IAR	CD	No	2	No	N/A	IP	1
3	IAR	SD	Yes	1	No	N/A	IP	3
4	IAR	MAR	Yes	1	No	N/A	IP	3
5	SGL	SD	Yes	2	Yes	12	IP	3
6	IAR	SD	Yes	1	No	N/A	IP	3
7	IAR	MAR	Yes	1	No	N/A	IP	3
8	IAR	MAR	Yes	1	No	N/A	IP	3
9	SGL	SD	Yes	2	No	N/A	IP	2
10	SGL	SD	Yes	2	Yes	14	IP	3
11	SGL	CD	No	2	Yes	12	DW	1
12	SGL	ENG	Yes	1	Yes	10	IP	2
13	IAR	SD	Yes	2	Yes	1	IP	1
14	SGL	SD	Yes	1	Yes	5	IP	3
15	IAR	SD	Yes	1	No	N/A	IP	3
16	SGL	ENG	Yes	1	No	N/A	DW	3

Note. IAR = In a relationship. SGL = Single. SD = Seriously Dating. CD = Casually Dating. MAR = Married. N/A = Not Applicable. IP = in person. DW = dating website.

APPENDIX B:**Phase 1 Implied Consent Form****Informed Consent Form for Social Science Research**
The Pennsylvania State University

Title of Project: Electronically-Mediated Maintenance Behaviors in Dating and Marital Relationships

Principal Investigator: Kayla Hales, PhD Student
101B IST Building, University Park, PA 16802
(814) 865-7723, khales@ist.psu.edu

Advisor: Dr. Lynette Kvasny
329C IST Building, University Park, PA 16802
(814) 865-6458, lkvasny@ist.psu.edu

1. Purpose of the Study:

The purpose of the interview is to discuss your viewpoint on the use of Information and Communication Technologies (ICTs) for relational maintenance. It is also to gather information on how you utilize technologies in your relationships and the reasons you do so in that fashion. You will be asked to answer questions about the background of your relationship, aspects of your personality, your perspective of your relationship, and your use of computer-mediated communication (CMC; e.g. text/instant messaging, email) in your relationship.

2. Procedures to be Followed:

You will be asked to complete a brief demographic and relationship background survey. Following this, an interview of approximately one hour will commence. Although you are not required to answer all questions, it will be most helpful if you do. Remember, there is no right or wrong answer. Please answer as honestly and completely as possible.

3. Benefits:

This research might provide a better understanding of how social relationships are affected by CMC use. This information could help couples better manage their relationship.

You may find answering the items on this survey may help you to better understand yourself, your behavior and your partner's behavior in your relationship.

4. Duration/Time:

It will take approximately 60 minutes to complete the survey and interview process. This time frame will be dependent on your thoughtfulness/thoroughness in this process and the amount of time you allocate to each question.

5. Statement of Confidentiality:

Please note that your responses will NOT be shared with your partner and that your responses will remain completely confidential. The data will be stored and secured at 307G IST Building in a locked file. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. Your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties.

6. Right to Ask Questions:

Please contact Kayla Hales at (814) 865-7723 with questions or concerns about this study.

7. Voluntary Participation:

Your decision to participate in this research is voluntary. You may stop at any time. You are not required to answer any questions you do not wish to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would otherwise receive. Completion of the survey implies your consent to participate in this research.

You must be 18 years of age or older to consent to take part in this research study. By checking the agreement box below, you acknowledge that you wish to take part in this research study given the information outlined above.

Please print this form for your records.

APPENDIX C:

Interview Recruitment Messages

Full Message

Research Participants Needed

For a Study on Electronic Communication in Dating and Marital Relationships

The purpose of the interview is to discuss your viewpoint on the use of electronic communication (e.g. text/instant messaging/telephone/Facebook/video conferencing) for relational maintenance in dating and marital relationships. It is also to gather information on how you utilize technologies in your relationships and the reasons you do so in that fashion. In order to participate in this study you must be at least 18 years of age and have a current or past romantic relationship to report on.

The interview process will take approximately 45 minutes depending on the thoroughness of your responses. All collected data will remain extremely confidential.

If you have any questions, comments, or interest in volunteering for this study please contact Kayla Hales at khales@ist.psu.edu. Thank you in advance for your participation and interest in the advancement of scientific research.

Sincerely,

Kayla Hales
101B IST Building, University Park, PA 16802
(814) 865-7723

This is a Pennsylvania State University affiliated study being conducted, in partial completion of the requirements for the degree of doctor of philosophy in Information Sciences and Technology (IST), under the direction of Dr. Lynette Kvasny - Professor of IST.

IRB#30284

Abridged Message

Kayla Hales, a PhD Candidate in Information Sciences and Technology (IST), is conducting a Penn State affiliated research study on "Electronic Communication for Relational Maintenance in Dating and Marital Couples" and needs volunteers to do an approximately 45 minute interview. Any interested parties should contact Kayla directly at khales@ist.psu.edu.

APPENDIX D:

Interview Guide

Title of Project:	Electronically-Mediated Maintenance Behaviors in Dating and Marital Relationships
Principal Investigator:	Kayla Hales, PhD Student 102B IST Building, University Park, PA 16802 (814) 865-7723, khales@ist.psu.edu
Advisor:	Dr. Lynette Kvasny 329C IST Building, University Park, PA 16802 (814) 865- 6458, lkvasny@ist.psu.edu

Introduction:

Introduction of researcher	thank you for your time.
Background information	the purpose of the interview is to discuss your viewpoint on the use of Information and Communication Technologies (ICTs) for relational maintenance. It is also to gather information on how you utilize technologies in your relationships and the reasons you do so in that fashion.
Confidentially Information	obtain consent for interview.

INTERVIEW QUESTIONS:

1. TECHNOLOGY FAMILIARITY

- a. How frequently do you use communication technologies in your everyday life?
- b. What is your level of proficiency with these technologies?

2. CMC USAGE

- a. What are your thoughts on the use of technology to communicate and maintain relationships?
- b. Please speak to how you use electronic communication or communication technologies to maintain your romantic relationship.
- c. Please offer examples of behaviors (positive and/or negative) that you have used to maintain your relationship in electronic media with your partner.

- d. WHY do you use electronic communication or communication technologies to maintain your relationship?
- e. What does electronic communication offer that face-to-face communication DOES NOT offer in regard to maintaining a relationship?
- f. What factors do you believe influence your desire to use (or not to use) CMC in your romantic relationship?
- g. Please speak to the impact you believe the use of ICTs has on your romantic relationship in terms of quality, satisfaction, and maintenance.
- h. Do you think the use of CMC is inevitable for relational maintenance? Why or why not?
- i. Would you use CMC in a future relationship to maintain it?
- j. What goals, if any, do you have in using technology in your romantic relationship?
- k. Are there any behaviors or conversational topics that are avoided during your CMC interactions with your partner? If so, why?
- l. In what situations would you consider it INAPPROPRIATE to use electronic communication to maintain a relationship or communicate with your partner?
- m. What ICTs, if any, do you think would be better for supporting a romantic relationship than others?
- n. Are there any communication technologies that you once used but stopped? If so, what are they and why did you stop?
- o. Are there any communication technologies that you have not used but would consider using in the future? If so, what are they and why would you consider them?

3. OTHER

- a. Is there any additional information that you would like to share regarding this subject?
- b. Are there any questions about CMC and relational maintenance that you would be interested in having the answer to?

APPENDIX E:**Phase 2 Implied Consent Form**

Informed Consent Form for Social Science Research
The Pennsylvania State University

- Title of Project:** Electronically-Mediated Maintenance Behaviors in Dating and Marital Relationships
- Principal Investigator:** Kayla Hales, PhD Student
307G IST Building, University Park, PA 16802
(814) 865-8952, khaless@ist.psu.edu
- Advisor:** Dr. Lynette Kvasny
329C IST Building, University Park, PA 16802
(814) 865- 6458, lkvasny@ist.psu.edu

1. Purpose of the Study:

The purpose of this research is to investigate the use of electronic communication in dating and marital relationships. You will be asked to answer questions about the background of your relationship, aspects of your personality, your perspective of your relationship, and the methods of communication you use with your partner. Finally, some demographic information will be collected.

2. Procedures to be Followed:

You will be asked to complete an online survey containing seven sections. The survey questions are regarding your use of electronic communication in your dating/marital relationship.

Although you are not required to answer all questions, it will be most helpful if you do; even those that may appear redundant. Remember, there is no right or wrong answer. Please answer as honestly, accurately, and completely as possible.

At the close of the survey, you will have the option of providing your contact information. This information may be used for future follow-up to this study and others like this one. You will also be asked to enter a pass code. This code will be used to connect your survey with your partner's survey for analysis purposes.

3. Benefits:

This research might provide a better understanding of how social relationships are affected by electronically-mediated communication use. This information could help couples better manage their relationship.

You may find answering the items on this survey may help you to better understand yourself, your behavior and your partner's behavior in your relationship.

4. Duration/Time:

It will take approximately XX minutes to complete the survey. This time frame will be dependent on your thoughtfulness about the questions and the amount of time you allocate to each items.

5. Statement of Confidentiality:

Please note that your responses will NOT be shared with your partner and that your responses will remain completely confidential. The data will be stored and secured at 307G IST Building in a locked filing cabinet. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. Your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties.

6. Right to Ask Questions:

Please contact Kayla Hales at (814) 865-8952 with questions or concerns about this study.

7. Voluntary Participation:

Your decision to participate in this research is voluntary. You may stop at any time. You are not required to answer any questions you do not wish to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would otherwise receive. Completion of the survey implies your consent to participate in this research.

You must be 18 years of age or older to consent to take part in this research study. By hitting the next button, you acknowledge that you wish to take part in this research study given the information outlined above.

Please print this form for your records.

APPENDIX F:**Pilot Study Feedback Questions**

1. Approximately how many minutes did it take you to complete the survey?
2. If there was a point in the survey where you considered exiting without completing the survey please indicate where and why (e.g. fatigue, not wanting to answer a question, etc.).
3. Was the survey clear?
 - a. Yes or No.
 - i. If no, please indicate any survey questions that you were uncertain about how to answer and why.
4. Was the survey too long?
5. Please indicate any survey questions that you did NOT want to answer and why?
6. Please list any problems (typos, errors, inability to navigate survey) you encountered during the survey.
7. Do you believe an incentive is necessary to get individuals to complete the survey?
 - a. Yes or No.
 - i. If yes, what incentive should be offered to encourage participation?
8. If there is anything else you would like to add, please do so below.

APPENDIX G:

Phase 3 Implied Consent Form



Informed Consent Form for Social Science Research The Pennsylvania State University

- Title of Project:** Electronically-Mediated Maintenance Behaviors in Dating and Marital Relationships
- Principal Investigator:** Kayla Hales, PhD Student
307G IST Building, University Park, PA 16802
(814) 865-8952, khales@ist.psu.edu
- Advisor:** Dr. Lynette Kvasny
329C IST Building, University Park, PA 16802
(814) 865- 6458, lkvasny@ist.psu.edu

1. Purpose of the Study:

The purpose of this research is to investigate the use of electronic communication in dating and marital relationships. You will be asked to answer questions about the background of your current/previous relationship, aspects of your personality, your perspective of this relationship, and the methods of communication you use(d) with your partner. Finally, some demographic information will be collected.

2. Procedures to be Followed:

You will be asked to complete an online survey containing six sections. The survey questions are regarding your use of electronic communication in your current or (if you're single) previous dating/marital relationship.

Although you are not required to answer all questions, it will be most helpful if you do; even those that may appear redundant. Remember, there is no right or wrong answer. Please answer as honestly, accurately, and completely as possible.

At the close of the survey, you will have the option of providing your contact information. This information may be used for future follow-up to this study and others like this one. You will also be asked to enter a pass code if you are currently in a relationship. This code will be used to connect your survey with your partner's survey for analysis purposes.

3. Benefits:

This research might provide a better understanding of how social relationships are affected by electronically-mediated communication use. This information could help couples better manage their relationship.

You may find answering the items on this survey may help you to better understand yourself, your behavior and your partner's behavior in your relationship.

4. Duration/Time:

It will take approximately 10 - 35 minutes to complete the survey. This time frame will be dependent on both your relationship status (i.e., single individuals will need less time), your thoughtfulness, and the amount of time you allocate to each item.

5. Statement of Confidentiality:

Please note that your responses will NOT be shared with your partner and that your responses will remain completely confidential. The data will be stored and secured at 307G IST Building in a locked filing cabinet. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. Your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties.

6. Right to Ask Questions:

Please contact Kayla Hales at (814) 865-8952 with questions or concerns about this study.

7. Payment for participation:

Participants who provide their contact information on the survey will be entered into a drawing to be completed between December 2009 and May 2010. Cash cards (e.g., Visa Gift Card) in the following amounts will be raffled: one \$100 card, two \$75 cards, three \$50 cards, and four \$25 cards. The winners will be contacted via email and asked to provide their home addresses so that their cash cards can be placed in the mail.

8. Voluntary Participation:

Your decision to participate in this research is voluntary. You may stop at any time. You are not required to answer any questions you do not wish to answer. Refusal to

take part in or withdrawing from this study will involve no penalty or loss of benefits you would otherwise receive. Completion of the survey implies your consent to participate in this research.

You must be 18 years of age or older to consent to take part in this research study. By hitting the next button, you acknowledge that you wish to take part in this research study given the information outlined above.

Please print this form for your records.

APPENDIX H:**Survey Recruitment Announcements**Full Message

Research Participants Needed

For a Study on Electronic Communication in Dating and Marital Relationships

The purpose of this research is to collect data regarding the use of electronic communication (e.g., text/instant messaging, telephone) in dating and marital relationships. In order to participate in this study you must be at least 18 years of age and have a current or previous dating/marital relationship to report on.

If you are interested in volunteering, the link below will take you to additional information, an informed consent form, and to the survey. All collected data will remain extremely confidential.

<SURVEY LINK>

Participants will be entered into a drawing for cash cards (e.g., Visa Gift Card) in the following amounts: one \$100 card, two \$75 cards, three \$50 cards, and four \$25 cards.

If you have any questions or comments, please contact Kayla Hales at khales@ist.psu.edu. Thank you in advance for your participation in the advancement of scientific research.

Sincerely,

Kayla Hales, PhD Candidate
The Pennsylvania State University
Principal Investigator

This is a Pennsylvania State University affiliated study being conducted, in partial completion of the requirements for the degree of doctor of philosophy in Information Sciences and Technology (IST), under the direction of Dr. Lynette Kvasny – Associate Professor in IST.

IRB#30284

Abridged Message

Kayla Hales, a PhD Candidate in Information Sciences and Technology (IST), is conducting a Penn State affiliated research study on "Electronic Communication Used for Relational Maintenance of Dating and Marital Relationships" in partial completion of her doctor of philosophy degree. Volunteers are needed to take her survey. Participants may be single or currently in a relationship but must be 18 or older. Upon completion of the survey participants will be entered into a raffle; grand prize a \$100 cash card. Any interested parties should visit the following website for additional information. Kayla Hales may be contacted at khales@ist.psu.edu.

<INSERT SURVEY LINK>

APPENDIX I:**Personalized Recruitment Emails**

Research Participants Needed

For a Study on Electronic Communication in Dating and Marital Relationships

Dear <INSERT NAME>,

Your contact information was provided to me by your partner as a potential participant in my research study. As your partner has previously completed my study, I am now interested in learning about YOUR personal experiences and behaviors in your relationship with <INSERT PARTNER NAME>. The focus of this study is on how you maintain your relationship using electronic communication. Your completion of my survey will improve my research greatly as I will have information from both you and your partner, preventing a one sided view. Rest assured that all responses in this survey will be kept completely confidential and no information will be shared with your partner.

As a way of saying thank you for your participation, and upon completion of this study, you will be entered into a drawing; cash cards (e.g., Visa Gift Card) in the following amounts will be raffled: one \$100 card, two \$75 cards, three \$50 cards, and four \$25 cards.

I sincerely hope that you will participate! Your unique identification code, provided by your partner, is as follows: <INSERT CODE>. Please keep this code handy as you will be asked to enter it at the close of the survey. Entering this code is very important as it will allow me to pair your survey with your partner's survey. You may access the survey and additional information at the following link: <INSERT SURVEY LINK>

Thank you for your time and consideration.

Sincerely,

Kayla Hales, PhD Candidate
The Pennsylvania State University
Principal Investigator

This is a Pennsylvania State University affiliated study being conducted, in partial completion of the requirements for the degree of doctor of philosophy in Information Sciences and Technology (IST), under the direction of Dr. Lynette Kvasny - Professor of IST.

IRB#30284

Research Participants Needed
For a Study on Electronic Communication in Dating and Marital Relationships

Dear <INSERT NAME>,

Your contact information was provided to me by a member of your social network as a potential participant in my research study. The focus of my study is how dating/marital relationships are maintained using electronic communication. In order to participate in this study you must be at least 18 years of age and have a current or previous dating/marital relationship to report on.

If you are interested in volunteering, the link below will take you to additional information, an informed consent form, and to the survey. All collected data will remain extremely confidential.

<INSERT SURVEY LINK>

As a way of saying thank you for your participation, and upon completion of this study, you will be entered into a drawing; cash cards (e.g., Visa Gift Card) in the following amounts will be raffled: one \$100 card, two \$75 cards, three \$50 cards, and four \$25 cards.

I sincerely hope that you will participate! Thank you for your time and consideration.

Best Regards,

Kayla Hales, PhD Candidate
The Pennsylvania State University
Principal Investigator

This is a Pennsylvania State University affiliated study being conducted, in partial completion of the requirements for the degree of doctor of philosophy in Information Sciences and Technology (IST), under the direction of Dr. Lynette Kvasny - Professor of IST.

IRB#30284

APPENDIX J:
Research Survey

1. Informed Consent Form for Social Science Research

Penn State University

Title: Electronically-Mediated Maintenance Behaviors in Dating and Marital Relationships

Principal Investigator:

Kayla Hales

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1. Purpose of the Study:

The purpose of this research is to investigate the use of electronic communication in dating and marital relationships. You will be asked to answer questions about the background of your current/previous relationship, aspects of your personality, your perspective of this relationship, and the methods of communication you use(d) with your partner. Finally, some demographic information will be collected.

2. Procedures to be Followed:

You will be asked to complete an online survey containing six sections. The survey questions are regarding your use of electronic communication in your current or (if you're single) previous dating/marital relationship.

Although you are not required to answer all questions, it will be most helpful if you do; even those that may appear redundant. Remember, there is no right or wrong answer. Please answer as honestly, accurately, and completely as possible.

you will have the option of providing your contact information. This information may be used for future follow-up. You will also be asked to enter a pass code if you are currently in a relationship. This code will be used to connect your survey with your partner's survey for analysis purposes.

3. Benefits:

This research might provide a better understanding of how social relationships are affected by electronically-mediated communication use. This information could help couples better manage their relationship.

You may find answering the items on this survey may help you to better understand yourself, your behavior and your partner's behavior in your relationship.

4. Duration/Time:

It will take approximately 10 - 35 minutes to complete the survey. This time will be dependent on whether you are single or in a relationship, your thoughtfulness, and the amount of time you allocate per item.

5. Statement of Confidentiality:

Your responses will NOT be shared with your partner and your responses will remain completely confidential. The data will be stored and secured at 307G IST Building in a locked filing cabinet. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. Your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties.

6. Right to Ask Questions:

Please contact Kayla Hales at (814) 865-8952 with questions or concerns about this study.

7. Payment for participation:

Participants who provide their contact information on the survey will be entered into a drawing to be completed between December 2009 and May 2010. Cash cards (e.g. Visa Gift Card) in the following amounts will be raffled: one \$100 card, two \$75 cards, three \$50 cards, and four \$25 cards. The winners will be contacted via email and asked to provide their home addresses so that their cash cards can be placed in the mail.

8. Voluntary Participation:

Your decision to participate in this research is voluntary. You may stop at any time. You are not required to answer any questions you do not wish to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would otherwise receive. Completion of the survey implies your consent to participate in this research.

You must be 18 years of age or older to consent to take part in this research study. By hitting the next button, you acknowledge that you wish to take part in this research study given the information outlined above. Please print this form for your records.

2. SECTION ONE: Eligibility Determination

1. Are you currently in a dating or marital relationship?

Yes

No

3. SECTION ONE: Eligibility Determination

1. Do you have a past dating/marital relationship that you can report on?

Yes

No

4. Description

In the upcoming section you will be asked to answer questions about your relationship history. Remember that there are no right or wrong answers; simply answer the questions as accurately as possible regarding your CURRENT relationship and partner. Please NOTE that you will be reporting on this individual for the remainder of the survey.

Depending on your answer to some of the questions you will automatically skip some pages (i.e. the survey may be shorter than it originally seems). If you need to step away from the survey you may return to complete the survey simply by keeping the browser window open. Once you close the survey your answers will be lost. Please try to be as complete as possible and proceed through until you hit the submit/done button.

5. SECTION TWO: Relationship Background Inventory

1. How long have you known your current partner?

Years

Months

2. How long has your relationship been in an established state (i.e. officially a dating or marital relationship)?

Years

Months

3. What is the status of your current relationship?

- Casually Dating
- Seriously Dating
- Engaged
- Married

4. Are you and your partner monogamous? (i.e. exclusively involved)

- Yes
- No

5. What was the first interaction you had with your partner?

- In person
- Internet
- Email
- Telephone
- I Don't Recall

Other (please specify)

6. Please describe how you and your partner first met.

7. How would you classify your primary interaction with your partner?

- In Person
- Electronic (excluding telephone)
- Telephone

8. In your opinion, is your relationship with your partner long distance?

- Yes
- No (skip to 10)

9. How long has your relationship with your partner been long distance?

Years

Months

10. How far away do you live from your partner?

- 00 - 49 miles
- 50 - 99 miles
- 100 - 149 miles
- 150 - 199 miles
- 200 - 299 miles
- 300 - 499 miles
- 500 - 999 miles
- 1,000 - 1,499 miles
- 1,500 - 1,999 miles
- 2,000 - 2,999 miles
- 3,000 - 3,999 miles
- 4,000 - 5,999 miles
- 6,000 - 7,999 miles
- 8,000 - 9,999 miles
- 10,000 - 11,999 miles
- 12,000+ miles

11. Approximately how many HOURS PER WEEK do you spend in person with your current partner?

12. Are you and your partner living together?

- Yes
- No (skip to 14)

13. How long have you and your partner been living together?

Years

Months

14. Your partner is a:

- Male
- Female
- Transgender

10. How obligated do you feel to continue your current relationship?

	Not at all Obligated	2	3	4	5	6	Extremely Obligated
Selection:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. In your opinion, how committed is your partner to this relationship?

	Not at all Committed	2	3	4	5	6	Extremely Committed
Selection:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. How attracted are you to other potential partners or a single lifestyle?

	Not at all Attracted	2	3	4	5	6	Extremely Attracted
Selection:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. How attractive would a potential partner have to be for you to pursue a new relationship?

	Not at all Attractive	2	3	4	5	6	Extremely Attractive
Selection:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Please rate your views on how likely each of the following is to happen:

	Very Unlikely	2	3	4	5	6	Very Likely
How likely is it that your current relationship will be permanent?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How likely is it that you and your current partner will be together six months from now?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How likely are you to pursue another relationship or single life in the future?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In your opinion, how likely is your partner to continue this relationship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. SECTION THREE: Relationship Inventory (Cont'd)

1. Please rate your level of agreement with the following statements:

	Strongly Disagree	2	3	4	5	6	Strongly Agree
My partner is primarily interested in his/her own welfare.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are times when my partner cannot be trusted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My partner is perfectly honest and truthful with me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I can trust my partner completely.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My partner is truly sincere in his/her promises.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that my partner does not show me enough consideration.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel my partner ignores my feelings and opinions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My partner treats me fairly and justly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that my partner can be counted on to help me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Both my partner and I are satisfied with the way we handle decisions between us.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We agree on what we can expect from one another.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are attentive to each others comments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We both have an equal 'say'.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are cooperative with each other.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. SECTION THREE: Relationship Inventory (Cont'd)

The items on the next two pages concern things people might do to maintain their relationships.

PLEASE BE SURE TO ADDRESS THESE STATEMENTS FROM AN ELECTRONIC COMMUNICATION PERSPECTIVE ONLY (i.e. append "In electronic media" to each sentence - In electronic media I stress my commitment to my partner).

1. Please indicate the frequency with which you do the following in your ELECTRONIC COMMUNICATION (e.g. blogs, email, instant messaging, social networking sites, text messaging, telephone, video conferencing, voice chat, etc.) with your partner.

	Never	Less than once a week	About once a week	Several times a week	About once a day	Several times a day
I stress my commitment to my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I imply to my partner that we have a future together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I show myself to be faithful to my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tell my partner "I love you".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I create a romantic environment for us.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I give my partner items of sentimental value such as electronic gifts or e-cards.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am especially romantic and affectionate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I show my partner affection by verbalizing physical touch (e.g. saying "kisses" or writing "hugs").	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I attempt to make our interactions enjoyable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am cooperative in the way I handle disagreements between us.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to make my partner feel good by doing things such as complimenting her/him.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am very nice, courteous, and polite when we communicate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I act cheerful and positive when communicating with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I criticize my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage my partner to share thoughts and feelings with me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tell my partner how I feel about our relationship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I let my partner know how I feel about her/him.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. SECTION THREE: Relationship Inventory (Cont'd)

1. Please indicate the frequency with which you do the following in your ELECTRONIC COMMUNICATION (e.g. blogs, email, instant messaging, social networking sites, text messaging, telephone, video conferencing, voice chat, etc.) with your partner.

	Never	Less than once a week	About once a week	Several times a week	About once a day	Several times a day
I share a lot of private information with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I disclose to my partner what I need or want from the relationship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We spend time with common friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We focus on common friends and affiliations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I show my partner that I am willing to do things with her/his circle of friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I include family or mutual friends in our activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I let my partner know I am willing to help with tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help my partner accomplish tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to shirk my relationship duties.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to "be there" when my partner needed someone to talk to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take the time to attend to my partner's problems and concerns.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to be especially supportive and caring.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I comfort my partner when s/he is sad or distressed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I give my partner advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I behave anti-socially with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I confirm the importance of our relationship to my partner or express my love/liking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I ignore my partner's attempts to contact me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I resolve conflicts with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I disclose information to my partner that informs him/her of our relationships status.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tell jokes, tease, or act sarcastically with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I assist my partner with his/her responsibilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate any other behaviors you enact during your electronic communication with your partner.

10. SECTION THREE: Relationship Inventory (Cont'd)

1. Please rate how strongly each of the following factors influence your decision to use electronic communication WITH YOUR PARTNER and the manner in which you use it.

	No Influence	2	3	4	5	6	Strong Influence
My need/desire to keep in touch with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My need/desire to relay basic information to my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My need/desire to increase my accessibility to my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My need/desire for my partner to increase his/her accessibility to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My need/desire to plan things with my partner related to our relationship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My need/desire to filter out information (e.g. visual or audio - tone, body language) that I do not want to share with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My need/desire to buffer a potentially difficult/uncomfortable conversation with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geographic distance between myself and my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My attitude toward/beliefs about the communication technology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My proficiency level with the communication technology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My partner's proficiency level with the communication technology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to split my attention span and multitask when communicating with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The convenience of using the communication media with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The applicability of the communication technology in my life and my relationship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The generation that I was born into.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The amount of time it takes to reach my partner using the communication technology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The electronic paper trail the communication technology provides.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The cost accrued by using the communication technology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The reason behind the interaction with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whether or not using the communication technology will be viewed as intrusive by my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please list any other factors that influence your use of communication technologies with your partner.

11. SECTION THREE: Relationship Inventory (Cont'd)

Some of the items on the next three pages refer to a specific love relationship, while others refer to general attitudes and beliefs about love. Whenever possible, answer the questions with your current partner in mind. If you have never been in love, answer in terms of what you think your responses would most likely be.

1. Please rate your level of agreement with the following statements.

	Strongly Disagree	2	3	4	5	6	Strongly Agree
When things aren't right with my lover and me, my stomach gets upset.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When my love affairs break up, I get so depressed that I have even thought of suicide.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes I get so excited about being in love that I can't sleep.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When my lover doesn't pay attention to me, I feel sick all over.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am in love, I have trouble concentrating on anything else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I cannot relax if I suspect that my lover is with someone else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my lover ignores me for a while, I sometimes do stupid things to get his/her attention back.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to use my own strength to help my lover through difficult times.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to always help my lover through difficult times.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would rather suffer myself than let my lover suffer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I cannot be happy unless I place my lover's happiness before my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am usually willing to sacrifice my own wishes to let my lover achieve his/hers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whatever I own is my lover's to use as he/she chooses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When my lover gets angry with me, I still love him/her fully and unconditionally.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would endure all things for the sake of my lover.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. SECTION THREE: Relationship Inventory (Cont'd)

Blank area for additional responses or notes.

1. Please rate your level of agreement with the following statements.

	Strongly Disagree	2	3	4	5	6	Strongly Agree
I did not realize that I was in love until I actually had been for some time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is hard to say exactly where friendship ends and love begins.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I cannot love unless I first had caring for awhile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Genuine love first requires caring for awhile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I still have good friendships with almost everyone with whom I have ever been involved in a love relationship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I expect to always be friends with the one I love.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The best kind of love grows out of a long friendship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is hard to say exactly when my lover and I fell in love.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our friendship merged gradually into love over time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Love is really a deep friendship, not a mysterious, mystical emotion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My most satisfying love relationships have developed from good friendships.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider what a person is going to become in life before I commit myself to him/her.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to plan my life carefully before choosing a lover.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is best to love someone with a similar background.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A main consideration in choosing a lover is how s/he reflects on my family.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An important factor in choosing a partner is whether or not s/he will be a good parent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One consideration in choosing a partner is how s/he will reflect on my career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Before getting very involved with anyone, I try to figure out how compatible his/her hereditary background is with mine in case we ever have children.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. SECTION THREE: Relationship Inventory (Cont'd)

15. Description

In the upcoming section you will be asked about your use of technology to communicate with your current partner. This can be done using WRITTEN electronic communication (e.g. blogs, email, instant messaging, social networking sites, text messaging, etc.), or using VOCAL electronic communication (e.g. telephone, video conferencing, voice chat, etc.). Please answer the questions as accurately as possible.

Thank you so much for continuing on with the survey. Your input is not only appreciated but valued.

16. SECTION FIVE: Electronic Communication in Relationships

1. How USEFUL would you say each of the following mediums are for carrying on your dating/marital relationship?

	Not Useful	2	3	4	5	6	Very Useful	N/A
Blogs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chat rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face-to-Face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instant Messenger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Postal Mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Networking Sites (e.g. Facebook, Twitter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Internet - e.g. Skype Audio)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Landline)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Mobile)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Text Messaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video Conferencing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Voice Chat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. SECTION FIVE: Electronic Communication in Relationships (Cont'd)

1. Please indicate YOUR proficiency level with the following methods of communication.

	Not Proficient	2	3	4	5	6	Very Proficient	N/A
Blogs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chat rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face-to-Face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instant Messenger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Postal Mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Networking Sites (e.g. Facebook, Twitter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Internet - e.g. Skype Audio)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Landline)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Mobile)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Text Messaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video Conferencing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Voice Chat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Please indicate your perception of YOUR PARTNER'S proficiency level with the following methods of communication.

	Not Proficient	2	3	4	5	6	Very Proficient	N/A
Blogs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chat rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face-to-Face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instant Messenger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Postal Mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Networking Sites (e.g. Facebook, Twitter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Internet - e.g. Skype Audio)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Landline)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Mobile)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Text Messaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video Conferencing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Voice Chat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. SECTION FIVE: Electronic Communication in Relationships (Cont'd)

1. Please indicate what best describes how often you use the following methods of communication with your partner to maintain your relationship?

	Never	Less than once a week	About once a week	Several times a week	About once a day	Several times a day
Blogs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chat rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face-to-Face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instant Messenger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Postal Mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Networking Sites (e.g. Facebook, Twitter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Internet - e.g. Skype Audio)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Landline)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone (Mobile)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Text Messaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video Conferencing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Voice Chat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please list any other communication methods you utilize.

2. How many total HOURS PER WEEK do you use electronic media to communicate with your partner?

19. SECTION FIVE: Electronic Communication in Relationships (Cont'd)

1. What is your perception of the IMPACT electronic communication with your partner has on your relationship?

	Low Negative Impact	Medium Negative Impact	High Negative Impact	No Impact	Low Positive Impact	Medium Positive Impact	High Positive Impact
Commitment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Liking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Love	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Satisfaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
OVERALL IMPACT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. SECTION TWO: Electronic Communication

1. In what way have you used electronic communication or communication technologies to maintain your previous dating/marital relationship(s)?

2. Why did you use electronic communication or communication technologies to maintain your past dating/marital relationship(s)?

3. Please offer positive examples of things you (or your former partner(s)) have done with electronic communication or communication technologies in attempts to maintain your previous dating/marital relationship(s).

4. Please indicate any instances where electronic communication or communication technologies has been used destructively in your previous dating/marital relationship (s).

5. Please speak to the impact you believe the use of electronic communication or communication technologies in your dating/marital relationship(s) had on the relationship(s).

6. Please indicate any things that you have done (or would do) in electronic media as a way to maintain your relationship that you have not done (or would not do) in person.

7. Please discuss your views on the differences between maintaining a relationship face-to-face and/or through electronic communication.

8. If there are any additional comments you would like to share regarding any electronic communication you have used to maintain a relationship, please do so below.

3. What is your perception of the IMPACT electronic communication has on a dating/marital relationship?

	Low Negative Impact	Medium Negative Impact	High Negative Impact	No Impact	Low Positive Impact	Medium Positive Impact	High Positive Impact
Commitment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Liking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Love	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Satisfaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
OVERALL IMPACT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain (if necessary)

22. FINAL SECTION: Individual Background Inventory

1. What is your current age?

2. What is your gender?

- Male
- Female
- Transgender

3. What is your sexual orientation?

- Heterosexual
- Lesbian
- Gay
- Bisexual

4. What is your race?

- African-American, Black (Non-Hispanic)
- Alaskan, American-Indian
- Asian, Asian-American
- Latin(o/a)/Hispanic
- Middle Eastern
- Native Hawaiian, Pacific Islander
- White, Caucasian (Non-Hispanic)

Other (please specify)

5. How many times have you been married?

- 0
- 1
- 2
- 3

Other (please specify)

6. Are you currently single?

- Yes
- No

7. What is your current marital status?

- Never married
- Domestic Partner
- Married
- Separated
- Separated (Divorce Pending)
- Divorced
- Widowed

Other (please specify)

8. How many children do you have?

- 0
- 1
- 2
- 3

Other (please specify)

9. Which of the following BEST describes your status?

- Undergraduate Student
- Graduate Student
- Academic
- Employed Full-Time
- Employed Part-Time
- Retired
- Self-Employed
- Unemployed (Seeking employment)
- Not in Workforce (Not seeking employment)

Other (please specify)

10. What is the highest level of education you have completed? (e.g. GED, HS, Some College, Bachelors, Masters, PhD, etc.)

11. Approximately, what is your household's total annual income in US Dollars?

- Less than \$5,000
- \$5,000 through \$11,999
- \$12,000 through \$15,999
- \$16,000 through \$24,999
- \$25,000 through \$34,999
- \$35,000 through \$49,999
- \$50,000 through \$74,999
- \$75,000 through \$99,999
- \$100,000 through \$149,999
- \$150,000 through \$199,999
- \$200,000 or greater

12. In what country do you currently live? (e.g. US, Canada, UK, etc.)

13. What is your religious affiliation?

14. What is the approximate total number of serious non-platonic relationships you have been in to date (i.e. dating/marital)?

- 1
- 2
- 3
- 4

Other (please specify)

15. If there are any additional comments you would like to share regarding anything on this survey, please do so below.

23. Partner Information

IF YOU ARE SINGLE, PLEASE SKIP TO THE NEXT PAGE.

Please provide the following information so that the researcher can collect information from the partner you reported on for a full picture of your relationship. This additional data will be VERY important to the study. You can rest assured that your survey responses will remain confidential and WILL NOT be shared with your partner.

1. Please enter the contact information for your partner.

Name:

Email Address:

2. Please enter a unique code below. When your partner is contacted s/he will be provided with this code. This code will be used to connect your survey with your partner's survey for analysis purposes only.

If you have already received a code because your partner already completed the survey, please do not create a new code, but write in that code.

24. Thank You!

Thank you for taking the time to complete this survey. Your participation is greatly appreciated! The collected information is only as good as the individuals who participate.

1. Please enter your contact information below. This information may be used for future follow-up to this study and other similar studies by the researcher.

Name:

Email Address:

2. Please enter the full name and email address of other individuals who might be interested in taking part in this study (Format: JDoe@gmail.com, Jane Doe).

Person 1	<input type="text"/>
Person 2	<input type="text"/>
Person 3	<input type="text"/>
Person 4	<input type="text"/>
Person 5	<input type="text"/>
Person 6	<input type="text"/>
Person 7	<input type="text"/>
Person 8	<input type="text"/>
Person 9	<input type="text"/>
Person 10	<input type="text"/>

APPENDIX K:

Reason for Using Computer-Mediated Communication Items

1. My need/desire to keep in touch with my partner.
2. My need/desire to relay basic information to my partner.
3. My need/desire to increase my accessibility to my partner.
4. My need/desire for my partner to increase his/her accessibility to me.
5. My need/desire to plan things with my partner related to our relationship.
6. My need/desire to filter out information (e.g. visual or audio - tone, body language) that I do not want to share with my partner.
7. My need/desire to buffer a potentially difficult/uncomfortable conversation with my partner.
8. Geographic distance between myself and my partner.
9. My attitude toward/beliefs about the communication technology.
10. My proficiency level with the communication technology.
11. My partner's proficiency level with the communication technology.
12. The ability to split my attention span and multitask when communicating with my partner.
13. The convenience of using the communication media with my partner.
14. The applicability of the communication technology in my life and my relationship.
15. The generation that I was born into.
16. The amount of time it takes to reach my partner using the communication technology.
17. The electronic paper trail the communication technology provides.
18. The cost accrued by using the communication technology.
19. The reason behind the interaction with my partner.
20. Whether or not using the communication technology will be viewed as intrusive by my partner.

APPENDIX L:

Relational Maintenance Scale Items

Assurances

1. I stress my commitment to my partner.
2. I imply to my partner that we have a future together.
3. I show myself to be faithful to my partner.
4. I tell my partner "I love you".

Romantic Affection

5. I create a romantic environment for us.
6. I give my partner items of sentimental value such as electronic gifts or e-cards.
7. I am especially romantic and affectionate.
8. I show my partner affection by verbalizing physical touch (e.g. saying "kisses" or writing "hugs").

Positivity

9. I attempt to make our interactions enjoyable.
10. I am cooperative in the way I handle disagreements between us.
11. I try to make my partner feel good by doing things such as complimenting her/him.
12. I am very nice, courteous, and polite when we communicate.
13. I act cheerful and positive when communicating with my partner.

Openness

14. I encourage my partner to share thoughts and feelings with me.
15. I tell my partner how I feel about our relationship.
16. I let my partner know how I feel about her/him.
17. I share a lot of private information with my partner.
18. I disclose to my partner what I need or want from the relationship.

Social Networks

19. We spend time with common friends.
20. We focus on common friends and affiliations.
21. I show my partner that I am willing to do things with her/his circle of friends.
22. I include family or mutual friends in our activities.

Task Sharing

23. I let my partner know I am willing to help with tasks.
24. I help my partner accomplish tasks.

Support and Comfort

25. I try to "be there" when my partner needed someone to talk to.
26. I take the time to attend to my partner's problems and concerns.
27. I try to be especially supportive and caring.
28. I comfort my partner when s/he is sad or distressed.

APPENDIX M:

Relational Maintenance Scale Item-Level Descriptive Statistics

Table 14
Item-Level Descriptive Statistics for the Relational Maintenance Scale

Item – Description	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Assure1 Stress my commitment	—												
2. Assure2 Imply relationship has a future	.68	—											
3. Assure3 Demonstrate faithfulness	.65	.72	—										
4. Assure4 Say “I love you”	.54	.57	.56	—									
5. Affect1 Create a romantic environment	.53	.52	.56	.38	—								
6. Affect2 Give items of sentimental value	.26	.33	.31	.20	.41	—							
7. Affect3 Act romantic and affectionate	.53	.52	.54	.43	.71	.34	—						
8. Affect4 Verbalize physical touch	.41	.37	.45	.34	.57	.35	.65	—					
9. Positivity1 Make interactions enjoyable	.53	.50	.49	.49	.46	.23	.53	.46	—				
10. Positivity2 Cooperate in disagreements	.40	.45	.47	.37	.39	.23	.40	.29	.57	—			
11. Positivity3 Try to make partner feel good	.52	.55	.59	.57	.56	.29	.57	.47	.66	.61	—		
12. Positivity4 Act courteous when communicating	.41	.40	.41	.46	.36	.20	.39	.32	.65	.44	.63	—	
13. Positivity5 Act cheerful and positive behavior when communicating	.43	.39	.40	.43	.38	.20	.41	.36	.65	.46	.65	.82	—

Note. $N = 375$. All are statistically significant at $p < .001$.

(Continues)

Table 14
Item-Level Descriptive Statistics for the Relational Maintenance Scale

Item – Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14
14. Open1 Encourage partner to share thoughts about relationship	.53	.56	.59	.53	.52	.25	.55	.48	.60	.55	.70	.49	.53	—
15. Open2 Share feelings about relationship with partner	.58	.63	.59	.52	.60	.30	.67	.54	.51	.42	.63	.44	.45	.72
16. Open3 Share feelings about partner with partner	.62	.65	.63	.66	.52	.29	.59	.50	.63	.45	.71	.54	.54	.70
17. Open4 Share private information with partner	.52	.54	.56	.46	.43	.26	.53	.42	.47	.39	.56	.41	.41	.62
18. Open5 Disclose wants/needs to partner	.54	.57	.56	.41	.50	.31	.56	.48	.42	.41	.51	.35	.34	.57
19. SocNet1 Spend time with common friends	.24	.26	.33	.24	.36	.23	.35	.34	.23	.24	.28	.21	.21	.27
20. SocNet2 Focus on common friends	.30	.29	.32	.25	.32	.15	.32	.25	.33	.27	.33	.30	.30	.34
21. SocNet3 Show willingness to network with partner's friends	.40	.37	.46	.31	.38	.23	.37	.32	.38	.36	.44	.37	.38	.47
22. SocNet4 Include friends/family in relational activities	.35	.36	.40	.26	.29	.22	.33	.23	.31	.28	.32	.25	.32	.30

Note. $N = 375$. All are statistically significant at $p < .001$ except item 6 (Affect2) and item 20 (SocNet2; bolded above). (Continues)

Table 14
Item-Level Descriptive Statistics for the Relational Maintenance Scale

Item – Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14
23. Tasks1 Indicate willingness to help	.46	.48	.53	.45	.41	.28	.45	.36	.49	.47	.58	.48	.48	.54
24. Tasks2 Help partner complete tasks	.38	.42	.50	.39	.34	.25	.35	.30	.44	.44	.48	.40	.42	.45
25. Support1 Try to “be there” when needed	.54	.52	.61	.50	.44	.23	.50	.40	.55	.54	.64	.49	.51	.67
26. Support2 Attend to partner’s issues	.57	.51	.60	.51	.46	.22	.52	.40	.58	.54	.67	.55	.57	.68
27. Support3 Try to be supportive and caring	.57	.50	.58	.54	.49	.23	.56	.42	.60	.50	.68	.57	.59	.65
28. Support4 Comfort partner when distressed	.51	.47	.55	.49	.43	.24	.49	.41	.52	.52	.62	.45	.48	.63
<i>Mean</i>	3.33	3.14	3.47	4.51	2.62	1.74	2.91	3.08	4.48	3.44	3.97	4.66	4.54	3.86
<i>Standard Deviation</i>	1.54	1.52	1.64	1.62	1.30	.84	1.47	1.78	1.42	1.34	1.42	1.25	1.27	1.57

Note. $N = 375$. All are statistically significant at $p < .001$.

(Continues)

Table 14
Item-Level Descriptive Statistics for the Relational Maintenance Scale

Item – Description	15	16	17	18	19	20	21	22	23	24
15. Open2	Share feelings about relationship with partner	—								
16. Open3	Share feelings about partner with partner	.77	—							
17. Open4	Share private information with partner	.60	.60	—						
18. Open5	Disclose wants/needs to partner	.65	.57	.70	—					
19. SocNet1	Spend time with common friends	.30	.28	.34	.36	—				
20. SocNet2	Focus on common friends	.31	.30	.36	.37	.71	—			
21. SocNet3	Show willingness to network with partner's friends	.38	.40	.43	.40	.59	.68	—		
22. SocNet4	Include friends/family in activities	.31	.32	.36	.38	.65	.63	.66	—	
23. Tasks1	Indicate willingness to help	.47	.52	.56	.49	.36	.39	.50	.43	—
24. Tasks2	Help partner complete tasks	.40	.45	.54	.44	.38	.37	.49	.42	.84

Note. $N = 375$. All are statistically significant at $p < .001$.

(Continues)

Table 14
Item-Level Descriptive Statistics for the Relational Maintenance Scale

Item – Description	15	16	17	18	19	20	21	22	23	24	25	26	27	28
25. Support1 Try to “be there” when needed	.58	.62	.63	.57	.25	.33	.49	.33	.65	.58	—			
26. Support2 Attend to partner’s issues	.55	.64	.66	.56	.30	.38	.51	.38	.66	.61	.89	—		
27. Support3 Try to be supportive and caring	.57	.63	.63	.55	.30	.38	.51	.37	.63	.55	.85	.90	—	
28. Support4 Comfort partner when distressed	.52	.60	.58	.56	.25	.33	.46	.34	.62	.55	.86	.85	.80	—
<i>Mean</i>	3.16	3.97	3.58	2.65	2.22	2.60	2.71	2.63	3.60	3.50	4.06	4.02	4.16	3.86
<i>Standard Deviation</i>	1.56	1.60	1.68	1.44	1.21	1.19	1.18	1.18	1.33	1.38	1.47	1.46	1.48	1.51

Note. $N = 375$. All are statistically significant at $p < .001$.

APPENDIX N:

**Item-Level Descriptive Statistics for the Perceived Impact of Using
Computer-Mediated Communication for Relational Maintenance Scale**

Table 15

Item-Level Descriptive Statistics for the Perceived Impact of Using Computer-Mediated Communication for Relational Maintenance Scale

Item – Description	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Commitment	5.15	1.20	—							
2. Control	4.55	1.08	.47	—						
3. Liking	5.15	1.11	.66	.40	—					
4. Love	5.17	1.12	.65	.35	.83	—				
5. Quality	5.25	1.17	.58	.38	.70	.73	—			
6. Satisfaction	5.22	1.18	.62	.31	.68	.70	.84	—		
7. Stability	5.41	1.18	.63	.34	.66	.66	.72	.76	—	
8. Trust	5.19	1.25	.62	.41	.61	.62	.61	.63	.75	—

Note. $N = 375$. All statistically significant at $p < .001$.

APPENDIX O:

Item-Level Descriptive Statistics for the Reasons for Using Computer-Mediated Communication for Relational Maintenance Scale

Table 16

Item-Level Descriptive Statistics for the Reasons for Using Computer-Mediated Communication for Relational Maintenance Scale

Item – Description	1	2	3	4	5	6	7	8	9	10	11	12
1. Keeping in touch with my partner	—											
2. Relaying basic information to my partner	.56	—										
3. Increasing my accessibility to my partner	.67	.52	—									
4. Increasing my partner's accessibility to me	.65	.51	.92	—								
5. Relational planning with my partner	.56	.54	.56	.58	—							
6. The ability to filter information	.07	.01	.15	.16	.16	—						
7. The ability to shield myself	.15	.07	.21	.22	.20	.78	—					
8. Geographic distance	.29	.20	.37	.33	.22	.09	.12	—				
9. My technical attitudes and beliefs	.08	.10	.12	.15	.18	.24	.19	.14	—			
10. My technical proficiency	.15	.15	.23	.24	.25	.27	.27	.16	.61	—		
11. My partner's technical proficiency	.14	.14	.21	.22	.25	.25	.24	.13	.59	.95	—	
12. Ability to multitask	.31	.25	.34	.34	.38	.28	.30	.16	.29	.48	.45	—

Note. $N = 375$. All statistically significant at $p < .001$ except values that are bolded.

(Continues)

Table 16

Item-Level Descriptive Statistics for the Reasons for Using Computer-Mediated Communication for Relational Maintenance Scale

Item – Description	1	2	3	4	5	6	7	8	9	10	11	12
13. Convenience of technology	.46	.37	.38	.39	.43	.12	.18	.25	.26	.38	.37	.50
14. Relevance to life	.36	.27	.40	.44	.44	.21	.23	.17	.34	.43	.44	.48
15. Generation	.22	.29	.24	.26	.21	.08	.12	.17	.29	.30	.30	.36
16. Time lapse in use	.39	.37	.38	.40	.38	.08	.18	.13	.23	.33	.32	.40
17. Resulting electronic paper trail	.11	.05	.18	.16	.17	.41	.40	.06	.31	.29	.27	.30
18. Cost of using the technology	.19	.15	.25	.23	.20	.29	.24	.17	.21	.27	.24	.22
19. Reason for interaction	.21	.21	.16	.15	.16	.20	.19	.11	.20	.27	.29	.23
20. Level of intrusion of the technology	.18	.13	.22	.24	.18	.28	.24	.08	.22	.27	.27	.21
<i>Mean</i>	5.55	6.01	5.15	5.08	5.37	1.94	2.14	4.06	2.99	3.27	3.31	3.75
<i>Standard Deviation</i>	1.76	1.39	1.89	1.86	1.69	1.50	1.68	2.53	2.09	2.19	2.22	2.09

Note. $N = 375$. All statistically significant at $p < .001$ except values that are bolded.

(Continues)

Table 16

Item-Level Descriptive Statistics for the Reasons for Using Computer-Mediated Communication for Relational Maintenance Scale

Item – Description	13	14	15	16	17	18	19	20
13. Convenience of technology	—							
14. Relevance to life	.60	—						
15. Generation	.36	.44	—					
16. Time lapse in use	.57	.50	.44	—				
17. Resulting electronic paper trail	.12	.21	.21	.20	—			
18. Cost of using the technology	.16	.25	.22	.28	.54	—		
19. Reason for interaction	.27	.29	.26	.29	.25	.27	—	
20. Level of intrusion of the technology	.23	.23	.18	.25	.37	.34	.39	—
<i>Mean</i>	5.15	4.37	4.09	4.90	2.13	2.49	3.45	2.38
<i>Standard Deviation</i>	1.85	2.10	2.08	2.04	1.71	1.94	2.28	1.88

Note. $N = 375$. All statistically significant at $p < .001$ except values that are bolded.

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