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LONG DISTANCE RELATIONSHIP PARTNERS' RELATIONSHIP MAINTENANCE  
BEHAVIOR AND RELATIONSHIP UNCERTAINTY REDUCTION

by

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B.A. Texas A&M University-Corpus Christi, 2017

A thesis submitted in partial fulfillment of the requirements  
for the degree of Master of Arts  
in the Nicholson School of Communication and Media  
in the College of Sciences  
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Major Professor: Harry Weger

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## **ABSTRACT**

Social networking sites have become popular communication tools to make connections and maintain interpersonal relationships, especially for long-distance romantic relationship. Given the popularity of this new communicative platform, this study aims at updating their pattern in terms of their benefits in maintenance romantic relationships among college students. 133 students were recruited to assess their maintenance behaviors through their uses of computer-mediated communication and some traditional communicative channels as well as their uncertainty level. This results reveal that long-distance romantic relationship partners use computer-mediated communication tools such as texting, direct messaging, Snapchat, and others more frequently than partners in geographically close relationships. In addition, this study finds that relationship maintenance performed on social media sites and face-to-face associate with relationship uncertainty. This study offers a new way to look at social networking sites as the maintenance behaviors for long-distance romantic relationship partners by comparing these new channels with the face-to-face maintenance communication. Such comparisons draw a bigger picture of how the long-distance romantic relationship maintenance operates in this digital age.

*Keywords:* Social networking sites, computer-mediated communication, long-distance romantic relationships

In memory of Justin Nguyen (Manh Cuong Nguyen), this paper is dedicated to you. You have been a major inspiration for me to bring this study to life. Thank you for the amazing journey. I

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

COVID-19	Coronavirius Disease 2019
F2F	Face-to-face
GCCR	Geographically close romantic relationship
LDRR	Long-Distance Romantic Relationship
SNS	Social Networking Sites

## **CHAPTER ONE: INTRODUCTION**

Many recent examinations of long-distance romantic relationship (LDRR) investigate the role technology plays in maintaining those relationships (Janning, Gao, & Snyder, 2018). Naturally, LDRRs can limit the knowledge romantic partners have of each other. The lack of available information in LDRRs is thought to be the result of from fewer interaction opportunities which sometimes result in a preconceived, and sometimes distorted, image of an ideal partner and how the relationship is supposed to be (Stafford & Reske, 1990). More recently, technology advancement has provided various communicative platforms including social networking sites (SNSs) which may enrich interaction opportunities for partners in LDRRs. Researchers have studied romantic relationships and SNSs to predict relationship longevity, satisfaction and other factors. One factor related to the lack of communication opportunities has been relational uncertainty (e.g., Dainton & Aylor, 2009). In one study, for example, couples who did not have face to face contact with their partner experienced more uncertainty than those with more frequent face to face contact (Dainton & Aylor, 2009).

In addition to relational uncertainty research suggest that SNSs are sometimes used by romantic partners to help maintain the relationship when face to face communication is limited and this is especially so for college students (Stewart, Dainton, & Goodboy, 2014). Almost 75% of college students may experience LDRRs (Stafford, 2005; Roberts & Pistole, 2009; Gentile & Edward, 2014), and this demographic is also a heavy SNSs user group (Toma & Choi, 2015).

Interestingly, for LDRRs daters, using SNSs can potentially have two side effects. It might lower uncertainty as it is a substitute for interpersonal face-to-face interactions. Yet, the displayed information available from the Internet, Facebook especially, could increase

uncertainty. This means the relationship between SNSs and uncertainty is potentially complicated (Stewart et al., 2014). Although past research has examined the effect distance can have on relationship maintenance and relational uncertainty (e.g. Brooks & Aylor, 2009), there has not been more recent researching examining the role of technology, such as SNSs, in this area. Therefore, this study offers an updated examination of the relationship relational maintenance and relationship uncertainty in LDRRs who use SNSs.

## **CHAPTER TWO: LITERATURE REVIEW**

### Long-Distance Romantic Relationships

Defining “distance” in LDRRs has not been as clear cut as one would hope. For example, Stafford (2005) specifies long-distance relationships as “when communication opportunities are restricted because of geographic parameters and the individuals within the relationship have expectations of a continued close connection” (p. 7). On the other hand, scholars indicate that LDRRs are self-defined without any specific criteria (Aylor, 2003; Murphy, 2018). Because distance and perceptions of restricted communication are often more perceptual than real, in this study, Aylor’s definition will be used such that couples are considered to be LDRRs when the partners recognize distance to be an obstacle to communication in the relationship.

Helgeson (1994) considered distance or physical separation as a stressor and each individual and their dependence on the relationships is influenced by this factor. Humans have high demands in intimacy that include social and personal bonding needs and connections (Kjeldskov et al., 2005). In a study by Saadatian et al. (2014), intimacy maintains the health of romantic relationships. Geographically close romantic relationships (GCRRs) should have fewer obstacles than LDRRs in maintaining intimacy and bonding. Unlike GCRRs partners, LDRRs couples experience separation and reunion cycle (Roberts & Pistole, 2009). They live far from one another for a long time (days or even weeks) with short visits (Pistole et al., 2010). Couples in geographically close distance can easily travel a shorter distance to see their partners in person, and they have more opportunities for face-to-face contact (Johnson et al., 2008) compared to long-distance couples. Billedo et al. (2015) asserted that LDRRs needed more efforts for relationship maintenance than GCRRs. Many life events can result in romantic

couples transitioning from geographically close to long-distance relationships. For example, researchers mentioned that situations such as moving away from one's romantic partner, at least temporarily, to pursue education or career opportunities (Stafford, 2005; Stafford & Canary, 1991). Unfortunately, increasing distance between partners can limit physical interactions and intimacy (Saadatian et al., 2014). Distance reduces opportunities for communication and especially physical affection. Saadatian et al. (2014) also noted that LDRRs couples had become more common, particularly among college students (Janning et al., 2018). Approximately 25% to 50% university students were reported to involve themselves in LDRRs and around 75% had been in LDRRs at one point in their lives (Stafford, 2005; Roberts and Pistole, 2009; Jiang & Hancock, 2013; Gentile & Edwards, 2014). Additionally, college students' romantic relationships are sophisticated. According to Toma and Choi (2015), college students are at "prime developmental stage for negotiating romantic relationships". Despite reduced opportunities for engaging in behaviors aimed at maintaining LDRRs, some studies argued that LDRRs were as satisfied as GCRRs (Jiang & Hancock, 2013; Stafford, 2010).

Addressing the issue of connection and intimacy in long-distance relationships, research suggests that these obstacles are being addressed by these couples through electronic forms of communication (e.g., Stafford, 2010). SNSs in particular seem to be a common approach to maintaining closeness and intimacy. Challenges in LDRRs enhance the remote communication among couples to soothe the feeling of absence and lack of intimacy, i.e., technology. The advancement of technology provides a wide range of communicative channels and methods, e.g., SNSs to support LDRRs.

### Channels of Communication in LDRRs

One goal of this thesis is to examine the added value of SNS's to more traditional channels of communication. Before the Internet, LDRRs maintained their relationships through telephone conversations and written communication in addition to periodic in-person visits when possible (e.g., Guldner & Swensen, 1995). In today's digital environment, SNS's have, to some extent, replaced letter writing and telephonic channels of communication. However, people communicate synchronously through both telephone and video-enabled applications such as Skype, Zoom, and others. Asynchronous text communication in the form of digital texting and direct message features through SNS apps such as Instagram and Facebook have also evolved to compliment or replace traditional letter writing. and other applications.

### Emerging Adults in LDRRs use Social Networking Sites

SNSs are forms of social media, and its purpose is to maintain interpersonal communication and relationships (Ellison, 2007; Rus & Tiemensma; 2017). This form of social media has a broad spectrum across areas and disciplines. Cole and Weger (2010) mentioned that SNSs ranged from Facebook, MySpace to Friendster and LinkedIn. Seekis et al. (2020) listed SNSs as Facebook and Instagram. Zafar and Chitnis (2020) enumerated SNSs: LiveJournal, Twitter, and Facebook. Jaward et al. (2017) determined that SNSs ranged from Facebook, Twitter to LinkedIn. Pennington (2020) examined three SNSs including Facebook, Twitter, and Instagram. Wilson et al. (2010) specified two SNSs, e.g., MySpace and Facebook. Currently, Facebook is the most popular communicative platform (fb.com, 2005; Cole & Weger, 2010; Rus & Tiemensma, 2017) with 1.56 billion active users as of March 2016. Instagram is the second

popular channel with 400 million active users and Twitter with 320 million active users (Phua et al., 2017).

The primary audience of SNSs is expanding in the age range of 18 to 24 years old (Duggan et al., 2015; Rus & Tiemensma, 2017), an age range that is relatively consistent with emerging adulthood (18-29). Based on that idea, this study emerging adults as this specific population has an increasing percentage of using SNSs users, especially Facebook (Pempek et al., 2009; Gentile & Edwards, 2014). Under the pressure of distance that limits daily intimate interactions, emerging adults may find SNSs as a replacement for “face-to-face” interactions. Because of the lack of face to face communication, it seems reasonable to predict that people in LDRRs will use SNSs, and other technologies that help bridge the distance gap more often than GCRRs.

### Relationship Maintenance

Following Stafford and Canary (1991), relationship maintenance is defined as the efforts and activities people use to manage and sustain the desired level of intimacy of a relationship. In their original study, Stafford and Canary surveyed 956 participants at two universities. Their study revealed 5 factors underlying the maintenance behaviors identified by their participants. The authors entailed that factor 1 included 10 items assessing partners' positivity and cheerfulness. Based on this assessment, Stafford and Canary named factor 1 “positivity”. Factor 2 included 6 items measuring self-disclosure and open discussions of partners about the nature of their relationships. This factor was labeled “openness”. Factor 3 included 4 items referencing the future of relationships (commitment, faith in the relationships, and expression of love). Thus, this factor was labeled “assurances”. Factor 4 included 2 items stressing distribution of tasks among



partners; this factor was labeled “sharing tasks”. The fifth factor had 2 items measuring the networking of partners or couples with friends and family and their use of these networks to maintain romantic relationships. This last factor was called “network”. Each strategy expresses different behaviors such as positivity shows upbeat, optimistic, and affirmative communication; sharing tasks is depicted as duties of each partner and their efforts in child-care, household chores, etc.; openness reveals willingness to the discussion of the state of relationship; social networking includes friends and family in the role of assisting to maintain the relationship; assurances captures behaviors that confirm partners’ commitment to each other (Canary et al., 1993; Dainton & Stafford, 1993; Haas & Stafford, 1998; Messman et al., 2000, Sidelinger et al., 2008; Stewart et al., 2014).

In later studies, several other types of maintenance behaviors were identified. Stafford (2003) introduced more relational maintenance strategies (e.g., focus on self, joint activities, mediated communication, avoidance/antisocial behavior, humor, no flirting, support, share activity, religion, small talk, affection, gay/lesbian supportive environment,...). Weger and Emmett (2009) added two behaviors to the existing tactics by Stafford, Dainton, and Haas (2000) such as advice and conflict management. In their paper regarding cross-sex friendships, Weger and Emmett (2009) differentiated between common and specific maintenance behaviors. Common maintenance behaviors are those that are required for almost any kind of relationship to be maintained and consist of the five maintenance behaviors positivity, assurances, openness, social networking, and spending time together. More specific maintenance behaviors fulfill particular functions in certain types of relationships. For example, discussing current romantic interests outside of the relationship functions in heterosexual cross-sex friendships as a way to signal disinterest in the cross-sex friend as a romantic partner. This maintenance behavior fulfills

a special function in cross-sex friendships and operates differently in other relationships, for example, discussing one's interest romantic interest in people outside the relationship is a taboo topic in romantic couples (Baxter & Wilmot, 1985) and functions as self-disclosure in same-sex friendships. Beyond types of relationship maintenance behaviors, scholars have also distinguished between routine and strategic maintenance behaviors. Routine maintenance is everyday mundane behaviors whereas strategic maintenance includes strategies enacted consciously. Though there are five maintenance strategies in routine interactions, this study focuses on the three common maintenance behaviors including positivity, assurances, and openness because as reported by Ledbetter (2010), the results showed that items of sharing tasks and networking lacked face validity for computer-mediated communication settings (Dainton, 2013).

### Distance and Relationship Maintenance

Distance in close relationships presents the problem of maintaining the relationship when partners have less access to each other and have fewer opportunities for enacting relationship maintenance behaviors. Because of the distance, relationship maintenance remains healthy when there are both strategic and routine efforts. For example, the message, "I love you" sent privately and a post updated every day are maintenance behaviors for LDRR couples (Billedo et al., 2015). However, the focal point of this research is routine maintenance behavior of LDRR couples in college and their use of SNSs to compensate for the disadvantages of physical distance.

Before the rapid increase in computer-mediated communication (CMC), opportunities for maintaining relationships were largely limited to telephone calls and physical letter writing. Communication channels have evolved over time from writing letters or phone calls to

computer-mediated communication, especially SNSs in order to better assist users, specifically in their relationship maintenance.

To date, SNSs, among different types of computer-mediated communication, play an important role in relationship maintenance (Billedo et al., 2015). SNSs support maintenance interactions with low costs and acquire participation and feedback through many communicative channels (Tong & Walther, 2011). Several studies have examined how SNSs might function in enactment of maintenance behaviors in long-distance interpersonal relationships. For example, Dainton (2013) showed that Facebook maintenance behaviors correlated with the general maintenance behaviors. In this study, Facebook positivity was moderately correlated with general positivity; Facebook assurances was slightly correlated with general assurances; Facebook openness was not significantly correlated with general openness. Ledbetter (2010) found that positivity, openness and assurances were used to maintain relationships via computer-mediated communication (i.e., Facebook). Couples who experience military deployment normally face the distance and limited opportunities for daily interactions. In a study by Knobloch and colleagues (2016), military couples expressed the importance of communication to remain the existence of their romantic relationships. Researchers have also found that assurances and positivity are among the most popular strategies military deployed LDRR couples have used (Maguire, Heinemann-LaFave, & Sahlstein, 2013; Merolla, 2010b; Weigel & Ballard-Reisch, 2008).

Although SNSs have been the focus of most LDRR maintenance studies, some couples might prefer other kinds of interaction instead of, or in addition to, SNSs. For example, Dimmick et al. (2000) states that different communication platforms provide “unique gratification for

users” (Carter et al., 2018). Research by Carter et al. (2018) points out the importance of synchronicity associated with telephone is an important gratification obtained from using this technology in communicating with others. Asynchronous communication, however, also has the appeal of being able to communicate and respond at the users’ convenience and the ability to reread messages. In addition, few, if any, studies examine differences between GCRs partners’ and LDRRs partners’ use of different technologies to maintain their relationships. One might assume that GCRs partners spend more time together and therefore use Facebook and other technologies less often than LDRRs partners. However, it is also possible that GCRs partners use SNSs and other communication technologies just as often as a supplement to their face to face activities. The general lack of researching examining differences in technology use among LDRR couples and between GCR and LDRR couples raises the following research questions:

RQ1: Which of the most popular and most studied mediated communication channels (i.e., texting, direct messaging, letter writing, email, telephone, video calls, Facebook, Instagram, Twitter, and Snapchat) do LDRR and GCR partners use to maintain their relationship?

H1: LDRRs partners use mediated communication channels such as Facebook, Snapchat, Instagram, Twitter, direct messaging, texting, telephone calls, video calls, email, and letter writing more frequently in relationship maintenance than geographically close partners.

### Relational Uncertainty

One of the most common issues for LDRRs couples is relational uncertainty (Knobloch & Solomon, 1999; Ficara & Mongeau, 2000; Dainton & Aylor, 2001; Suwinyattichai et al., 2017). Relational uncertainty management theory is based to some extent on the older

uncertainty reduction theory (Berger & Calabrese, 1975). Uncertainty reduction theory suggests that increasing communication between people decreases their uncertainty which in turn, increases how much partners like each other. The original theory, however, only pertains to initial interactions and not communication in on-going relationships. More recently, researchers have introduced relational uncertainty management theory to help explain communication in a variety of relationship types (e.g., Knobloch & Solomon, 1999). In general, this theory also suggests that romantic couples who engage in more open and frequent communication are more stable and satisfied. The concept of relational uncertainty involves partners' confidence level in each of three areas: self-uncertainty, which involves self-doubts of feelings for romantic partners and the relationship (how certain one feels about his/her commitment to the relationship); partner uncertainty, which includes doubts of a partners' feelings about the relationship (how certain one feels about the partner's feelings about the relationship); and relationship uncertainty, which relates to people's doubts about the relationship itself (how certain one feels about the status of the relationship, the rules of the relationship, and the mutuality of the relationship) (Knobloch & Solomon 1999; 2002). This study focuses on relationship uncertainty. As such, researchers have identified four types of relationship uncertainty people experience: Behavioral norms uncertainty is uncertainty about rules/standards for behavior in a relationship; mutuality uncertainty relates to uncertainty about whether partners experience mutually share; definitional uncertainty is uncertainty about whether the partners define the relationship in the same way in terms of commitment and other factors; and future uncertainty involves questions about whether the relationship will be sustained over time (Knobloch & Solomon, 1999; Stewart et al., 2014).

As discussed briefly above, LDRRs couples often experience a higher level of relationship uncertainty level due to limited face-to-face interaction which makes certainty about

the partner and relationship harder to assess (Stafford, 2010; Suwinyattichai et al., 2017). Research has suggested that maintenance behaviors play a role in uncertainty management in relationships (Dainton & Aylor, 2009). According to Daniel et al. (2009), previous literature suggest that relational uncertainty has been found to be associated with relationship maintenance behaviors. For example, Dainton (2013) found that relational uncertainty associated negatively with enacting relationship maintenance behaviors in GRRs. This pattern has held true for other types GRRs as well, such as cross-sex friendships (e.g., Guerrero & Chavez, 2008; Weger & Emmet, 2011). In another research by Ficarra and Mongeau (2000), it was found that uncertainty was negatively correlated with positivity, openness and even assurances for college students who were in long-distance dating relationships using more traditional channels of communication. In their study, Dainton and Aylor (2009) found that LDRR partners who engaged in more maintenance behavior were less uncertain about their relationship. However, their study was also conducted before SNSs were popular and, in any case, did not attempt to measure maintenance communicated using SNS channels, or other types of CMC, in any form. Dainton and Aylor also measured only general uncertainty and not specifically relationship uncertainty.

Thus, this study focuses on relationship maintenance and uncertainty because distance and reduced opportunities for correcting doubts and misgivings might result in more confusion about relationship issues. The focus also clarifies the complication between SNS's and relationship uncertainty. Scholars examining the use of SNS's and partners relationship uncertainty suggest that the relationship between SNS use and relationship uncertainty may be complicated (Stewart et al., 2014). Although SNSs support uncertainty reduction by providing a communication channel that includes the explicit public content when individuals display their relationships, the lack of cues and ambiguity provides the potential for exacerbating

misinterpretation for romantic couples that are geographically apart. For example, research suggests that spending more time on SNSs can increase jealousy over ambiguous content such as posts on a partner's page by a potential rival or ambiguously flirty messages between a partner and another person.

Finally, it seems possible that the maintenance behaviors LDRR partners enact when they are face-to-face are equally or more important than the maintenance behaviors they enact on SNSs when it comes to reducing relationship uncertainty. It is also possible that the effects of face-to-face and social network maintenance behaviors are additive in that these behaviors both contribute to a reduction in uncertainty about the relationship. Therefore, the third research question is asked:

RQ2: In LDRRs, do maintenance behaviors enacted on social networking sites continue to predict relationship uncertainty once the effects of face to face maintenance behaviors are controlled?

## CHAPTER THREE: METHODOLOGY

### Participants and Procedures

Data was gathered from 133 participants who were recruited from a communication courses at a large Southeastern University. Participants were offered extra credit for completing an online survey. Inclusion criteria for participation were (a) 18 years of age or older, (b) currently involved in a romantic relationship and c) use SNSs as a communicative method with their romantic partners. Participants' data was excluded if they were older than 29 (i.e., not emerging adults,  $n=5$ ), did not complete the relevant measures in the survey ( $n=6$ ), or responded to infrequency index items (e.g., "I can run a mile in under three minutes," "I make my own clothes and shoes") at or above the neutral point in the scale ( $n=5$ ) (Jackson, 1967). The infrequency index measures insufficient effort in responding and helps eliminate participants who click through the survey without reading items. Overall, 117 participants' surveys were retained for analysis. The average age of the participants was 23 years old. The sample included 42 males and 82 females and 1 nonbinary. The ethnic makeup of the sample was 17.5% African American/Black; 7.9% Asian and Pacific Islander; 39% Caucasian/White, 25% Hispanic, and 10% reported Other. Participants reported their relationship status as 4% "friends with benefits," 9% "just talking to each other," 12% "dating but not exclusive," 34% "committed dating," 8.4% "living together but not engaged or married," 5.3% "engaged," and 4.6% "married."



## Measures

### Long-Distance Status

Unfortunately, classifying relationships as long-distance or geographically close is complicated because it is a matter of resources for travel and opportunities to connect in a face to face context. The most popular measure at this time is simply to allow participants to classify their relationship as long distance or geographically close. LDRRs were operationalized based on whether participants considered themselves to be LDRR or GCRR. According to Stafford (2005), “such a definition likely captures each individual’s relational reality better than researcher-imposed constructions” (p. 27). Participants read the following description of LDRRs and responded either “yes” or “no” as to whether they are currently involved in a LDRR, “A long-distance relationship is defined as a relationship in which there is a considerable geographical distance between partners. It would be practically impossible for partners to see one another every day, and the majority of communication within the relationship is not face-to-face. Do you consider your current romantic relationship to be a long-distance relationship?” In the sample, 53 responded “yes” and were labeled long distance romantic relationships (LDRRs). The remaining 64 responded “no” and were labeled geographically close romantic relationships (GCRs).

In order to further validate the scale, participants were asked to give an approximate distance between them and also were asked how often they see their partner face-to-face. The average distance for LDRRs was 591.5 miles and for GCRs the distance was 41.2 miles. The modal response for frequency of face-to-face contact for LDRRs was “about once per month” with 77.4% reporting “a few times per year,” “about once per month,” or “a few times per

month.” For GCRs, it was “almost every day” with 74% responding “about once per week,” “almost every day,” or “every day.” Participants were asked about the reason they were apart. The results were reported “military deployment” with 5%, 53% reported “attending school,” 22% referred “work related reasons,” 15% stated “COVID-19 quarantine” (data gathered in the summer of 2020), 45% reasoned “living in different cities,” and 4% claimed “other.” Percentages do not add to 100 because participants were allowed to give more than one answer.

### Social Networking Maintenance Scale

In order to measure social networking relationship maintenance, a scale specific to SNSs maintenance based on the Facebook maintenance scale developed by Dainton (2013) was used. Dainton’s measure involved a similar procedure to finding items as was used by Canary and Stafford (1991) in developing the face-to-face maintenance scale. Participants were asked to generate a list of behaviors they used to maintain their relationship while communicating on Facebook with their partner. The behaviors were then given to another group of participants who reported how often they used those behaviors. A factor analysis resulted in three general strategies that matched the positivity, openness, and assurance categories in the original face to face measure. For example, “I post on my partner’s wall to make him/her feel special” (Facebook *Positivity*), “I update or post messages to keep my partner up to date on my life” (Facebook *Openness*), and “I write ‘I love you’ on my partner’s wall” (Facebook *Assurances*). To relate the items to SNSs in general, the instructions for participants read, “We are interested in the different ways people maintain their relationship, that is, how they keep the relationship in its current state. For these questions, we are interested in behaviors you engage in when communication with your partner on Social Networking Systems such as Facebook, Instagram,

Snapchat, and so forth. For the next few items, please tell us how often you engage in these behaviors.” The items consisted of a 5-point scale from 1 = “never” to 5 = “always.” Table 1 provides means, standard deviations, and reliability coefficients for the maintenance and uncertainty scales among three focal maintenance strategies (e.g., *Positivity*, *Assurances*, and *Openness*).

#### Face-to-Face Maintenance Scale

This is a 5-point Likert-type scale ranging from 1 (never) to 5 (always). The five distinguished maintenance strategies were delineated by Canary and Stafford (1991) such as positivity, assurances, openness, social networking, and task sharing. The same scale was applied in Guerro and Chavez (2005) and Emmett (2008) with modified items to match the friendship context. Continuously, Weger et al. (2019) employed the maintenance items from the aforementioned studies to measure behaviors of cross-sex friendship maintenance. In the present study, the behaviors were operationalized by adopting the measurement from Weger et al. (2019) to assess three popular “in-person” maintenance tactics and behaviors (e.g., *Positivity*,  $\alpha = .91$ ; *Openness*,  $\alpha = .87$ ; *Assurances*,  $\alpha = .85$ ). However, the items were adjusted to suit the romantic relationship condition. For example, “I smile and act positive around my partner” (Face-to-Face *Positivity*), “I assure my partner that I am committed to the relationship” (Face-to-Face *Assurances*), and “I tell my partner how I feel about our relationship” (Face-to-Face *Openness*).

#### Relationship Uncertainty

Relationship uncertainty was measured by Rubin et al. (2009). This scale included 4 factor instrument with 16 items. *Behavioral Norms* indicates questions the manners of conduct in

the relationship while *Mutuality* focuses on uncertainty of reciprocity level in the relationship.

The next subscale, *Definition*, investigates the concerns about the relationship status. *Future*, the

Table 1. Descriptive Statistics and Alpha Reliability Estimates for Variables in the Analysis for LDRRs and GCRs combined.

Variable	<i>M</i>	<i>SD</i>	Cronbach's $\alpha$
<b>Social networking maintenance scale</b>			
Positivity	3.85	.93	.83
Assurances	2.29	1.11	.88
Openness	2.75	.94	.80
<b>Face to Face Maintenance Scale</b>			
Positivity	3.97	.77	.91
Assurances	4.01	.93	.85
Openness	3.66	1.05	.87
<b>Relationship uncertainty scale</b>			
Definition	2.15	1.15	.91
Mutuality	2.29	1.17	.89
Future	2.61	1.21	.86
Norms	2.21	1.13	.89

last subscale, asks questions about the possibilities and chances for the relationship growth.

Participants rate their certain level to the Likert-type scale (1= very uncertain to 5=very certain)

items of measurement such as *Behavioral Norms* (e.g., “The boundaries for appropriate and/or

inappropriate behavior in this relationship?”), *Mutuality* (e.g., “The current status of this

relationship?”), *Definition* (e.g., “The definition of this relationship?”), and *Future* (e.g., “Where this relationship is going?”).

### Communication Channels

Items were developed to measure the frequency of use of 10 communication channels that participants used in communicating with their partner that included texting, letter/note writing, direct messaging, telephone calls, Skype or other video chat technology, email, Facebook Twitter, Instagram, and Snapchat, the last four being the most popular SNSs. Frequency was measured on a 5-point scale from 5 = “multiple times each day” to 1 = “rarely or never.” (See Appendix A for all measurement items in the survey).

## CHAPTER FOUR: RESULTS

The first research question asked which popular mediated channels of communication are used most frequently by participants in long-distance relationships. Mean scores across LDRR participants were computed to identify the frequencies for each type of mediated communication channel use. Figure 1 graphically depicts the frequency with which each channel is used by LDRR and GCR participants. As depicted in Figure 1, the most to least frequent were texting, direct messaging, video chat, Snapchat, telephone, Instagram, Facebook, Twitter, email, and letter writing. See Table 1 for means and standard deviations across communication channel types.

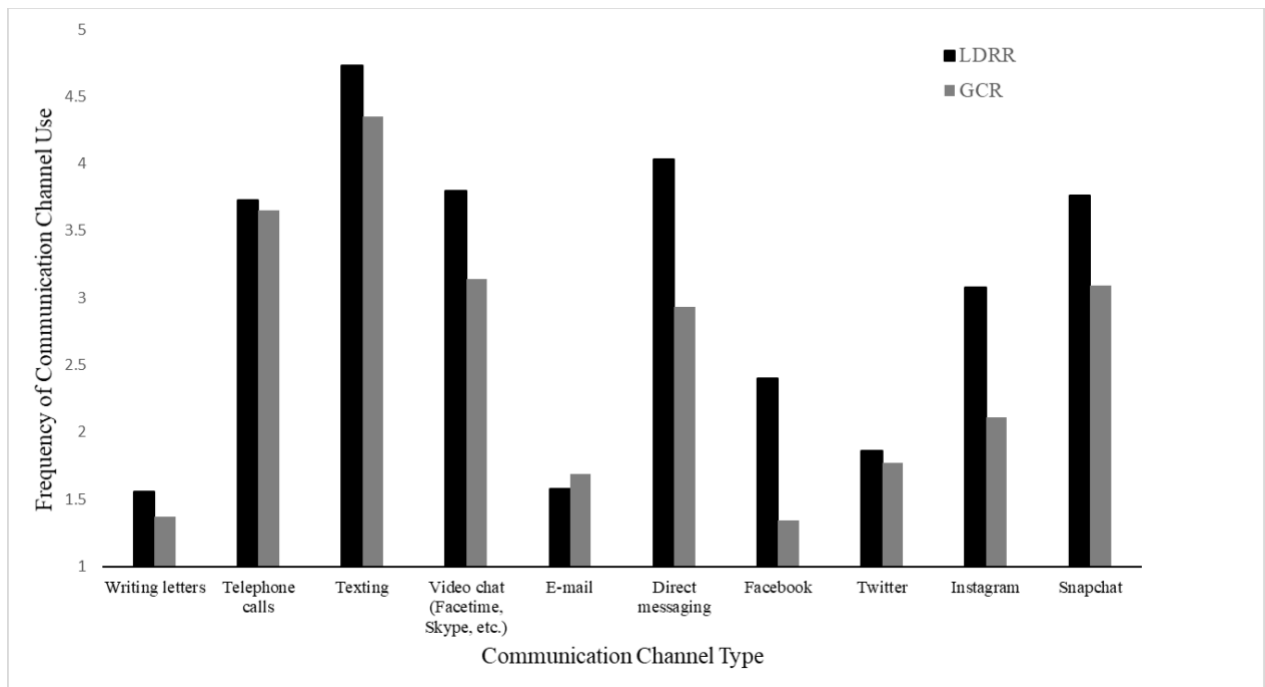


Figure 1. Frequency of Media Communication Channel Use

The first hypothesis predicted that participants in LDRR relationships would report using mediated communication channels more often than geographically close relationship participants. A set of independent sample *t*-tests were conducted to determine whether differences between LDRR and geographically close participants were significant. Table 2 presents descriptive statistics, *t*-test statistics, and probability values across frequency communication channel types and between the focal groups.

Table 2. Means, Standard Deviations, *t*-test Statistic, and Probability Levels for Frequency of Communication Channel Use Between LDRR and GCR Partners.

Channel	LDRR	GCR	<i>t</i>	<i>p</i>
Writing letters	1.56 (1.11)	1.37 (.68)	1.15	.25
Telephone calls	3.73 (1.21)	3.65 (1.29)	0.45	.67
Texting	4.73 (.66)	4.35 (1.10)	2.14 <sub>1</sub>	.03
Video chat (Facetime, Skype, etc.)	3.80 (1.28)	3.14 (1.39)	2.63	<.01
E-mail	1.58 (.94)	1.69 (.45)	-2.87 <sub>1</sub>	<.01
Direct messaging	4.03 (1.05)	2.93 (1.43)	4.40	<.01
Facebook	2.40 (1.62)	1.34 (.84)	4.21 <sub>1</sub>	<.01
Twitter	1.86 (1.33)	1.77 (1.69)	0.31	.70
Instagram	3.08 (1.56)	2.11 (1.28)	3.64	<.01
Snapchat	3.76 (1.45)	3.09 (1.55)	2.33	.02

Notes: LDRR = Long-distance romantic relationship; GCR = Geographically close relationship. Standard deviation appears in parenthese next to the means.

<sub>1</sub>Equal variances not assumed

As depicted in Table 2, LDRR participants used texting,  $t(115)=2.14, p=.03$ , video chat,  $t(115)=2.63, p<.01$ , direct messaging,  $t(115)=4.40, p<.01$ , Facebook,  $t(115)=4.21, p<.01$ , Instagram,  $t(115)=3.64, p<.01$ , and Snapchat,  $t(115)=2.33, p=.02$ , significantly more frequently than geographically close relationships. Although GCR participants used e-mails more frequently than LDRR,  $t(115)=-2.87, p<.01$ , the difference is small. The frequency of letter writing,  $t(115)=1.15, p=.25$ , telephone calls,  $t(115)=0.45, p=.67$ , and Twitter use,  $t(115)=0.31, p=.70$ , did not differ between the groups.

The second research question asked whether maintenance behavior on social networking sites predicts relationship uncertainty after the effect of face-to-face relationship maintenance behaviors are accounted for. To examine this research question, four hierarchical multiple regression analyses were computed, with each relationship uncertainty scale serving as a dependent variable and the three face-to-face maintenance scales entered on the first step followed by the three SNS maintenance behaviors entered on the second step as predictor variables. Table 3 includes  $R^2$  statistics for each model and parameter estimates for all variables in each analysis. The first step in the equation for future uncertainty accounted for about 27% of the variance  $R^2_{adj}=.27, F(3, 48) = 6.05, p < .001$ . The addition of the SNS maintenance variables resulted in a 14% increase in variance accounted for,  $R^2_{\Delta}=.14, F_{\Delta}(6,45)=3.58, p=.02$ . In this equation, face-to-face assurances, SNS openness and assurances emerged as significant predictors of future uncertainty (see Table 3 for standardized regression coefficients). Interestingly, openness was associated positively with future uncertainty, which was unexpected.

The second regression analysis included mutuality uncertainty as the dependent variable and face-to-face (entered first) and SNS (entered second) maintenance variables. The first step of



the equation accounted for 46% of the variance,  $R_{2adj}=.46$ ,  $F(3, 48) = 15.57$ ,  $p < .001$ . The addition of the SNS maintenance variables accounted for a 25% increase in the variance accounted for by the model,  $R_{2\Delta}=.25$ ,  $F_{\Delta}(3.45) = 2.28$ ,  $p=.04$ . Face-to-face assurances and SNS openness emerged as significant predictors of mutuality uncertainty (see Table 3 for standardized regression coefficients). Again, SNS openness was positively, instead of negatively, associated with mutuality uncertainty.

Table 3. Hierarchal Regression Results and Standardized Regression Coefficients

	Dependent Variable			
	Future Uncertainty	Mutuality Uncertainty	Definition Uncertainty	Norms Uncertainty
Step 1				
Model $R^2$	.27*	.46*	.33*	.30*
F2F Positivity	-.22	-.93	-.08	-.38*
F2F Openness	-.29	-.29	.03	-.08
F2F Assurances	-.47*	-.40*	-.56**	-.25
Step 2				
Change in $R^2$	.14*	.25*	.18*	.20*
SNS Postivity	-.04	-.16	-.42**	-.47**
SNS Openness	.41**	.35*	.11	-.06
SNS Assurances	-.52**	-.18	-.23	.16

Notes: F2F = Face-to-Face maintenance behaviors; SNS = social networking sites maintenance behaviors

\*= $p < .05$ , \*\*= $p < .01$

The third equation included definition uncertainty as the dependent variable. The first step of the equation accounted for about 33% of the variance,  $R_{2adj}=.33$ ,  $F(3,48) = 3.36$ ,  $p<.01$ . The addition of the second step revealed an increase in variance accounted for of 18%,  $R_{2\Delta}=.20$ ,  $F_{\Delta}(3,45) = 3.21$ ,  $p=.03$ . The analysis of coefficients revealed that face-to-face assurances and SNS positivity associated negatively and significantly with definition uncertainty.

Finally, the fourth equation involved norms uncertainty as the dependent variable. The first step of the equation accounted for about 30% of the variance,  $R_{2adj}=.30$ ,  $F(3,48)=6.29$ ,  $p<.001$ . The addition of the second step revealed an increase in variance accounted for of 18%,  $R_{2\Delta}=.18$ ,  $F_{\Delta}(6,45) = 2.69$ ,  $p=.04$ . Both face-to-face and SNS positivity were significantly, and negatively, associated with norms uncertainty.

## **CHAPTER FIVE: DISCUSSION**

Specifically, this study was conducted during COVID-19 pandemic to reflect the true impacts, if any, on couples. It is interesting to see if there is any change in the type of romantic relationships that couples experienced during this special period.

First, the findings in this study suggests that Facebook and Twitter were among the least frequently used channels for emerging adults. On the contrary, existing studies detail that Facebook has been the most popular communicative method (fb.com, 2015; Cole &Weger, 2010; Rus & Tiemensma, 2017), and Twitter has been the second popular channel (Phua et al., 2017). Supposedly, Facebook has been a common item for many research that scholars might miss the other types of communication with the possible impact on LDRRs maintenance. The discrepancy between this study's results regarding the use of Facebook and other study's showing wider use of the platform is likely due to methodological differences. In the present study, we asked participants how often they used direct message features associated with social networking sites separately from using the social networking sites except for the direct message feature. It is possible in other studies, the partners were using Facebook's direct messaging feature when communicating with LDR partners, but not so much other features such as writing on each other's wall or commenting on one another's posts. Thus, some of the direct messaging frequency would in this study might be attributable to Facebook which somewhat reduces the appearance of Facebook as a popular maintenance channel of communication.

Another interesting discovery from the study is that writing letters and emails were almost never used. Previous research mentioned that emails was for communicating important matters but not urgent (Tillema et al., 2010). A study by Johnson et al. (2008) partially supported

the result of this study indicating that email exchange between LDRRs partners and GCRRs partners had the lowest percentages among other types of relationship including one geographically close family member, at least one long-distance friend, at least one geographically close friend. In the case of writing letters, communicating through letters takes more time than other form of communicative methods. Due to the major problem of distance and immediate needs of intimacy, apparently, writing letters could not fulfill this desire. To that end, LDRR couples tend to use this form of communication less often than other forms.

In order to examine further about the communication channels use of LDRRs, the results from Table 2 suggests that there are significant differences between LDRRs and GCRRs in the frequency of using texting, video chat (Facetime, Skype, etc.), emails, direct messaging, Facebook, Instagram, and Snapchat. As predicted, LDRRs couples tend to use more mediated communicative methods such as texting, video chat, direct messaging, Facebook, Instagram, and Snapchat than GCRRs. Compared to GCRRs couples, LDRRs couples normally face the pressure of the distance and the lack of everyday physical interactions. Thus, they have the tendency to use mediated communicative methods to compensate the immediate need of intimacy by using those channels. As the result show in Table 2, the first hypothesis was supported. Table 2 also shows that email is used slightly more frequently by GCRRs than LDRRs. In support of this idea, Tillema et al. (2010) refers emails as a method to communicate important issues but not in immediate status. In other words, GCRRs couples can use emails to discuss important matters and leave more time for their partners to respond, and other urgently important problems, they can meet face-to-face. On the other hand, Johson et al. (2008) claimed that emails were used by LDRRs partners more than GCRRs partners (p. 389). It is possible that in 2008, which was before the widespread popularity of social networking platforms, LDRR

couples did rely on email more often than GCRR couples because it was almost all they had. Such contrast in ideas should be clarified in further research to understand about emails usage of LDRRs and GCRRs maintenance.

The second research question asked whether maintenance enacted using SNS associates with uncertainty above and beyond the influence of maintenance enacted face to face in LDRRs. Literature in LDRR couples has not compared the SNSs and face-to-face maintenance behaviors concurrently, and this study aims at doing so to understand more about the two spectrums of maintenance strategies for couples in LDRRs. In Table 3, within the four uncertainty types, communicating assurances face to face negatively associated with three of them (future uncertainty, mutuality uncertainty, definitional uncertainty). This shows that face to face maintenance behaviors are still important even when the couple does not see each other very often, especially when it comes to assuring the partner about one's commitment to the relationship. Communicating positivity face to face was also related negatively to norm uncertainty so that the more positivity the couple communicated in person, the more the partners felt certain they understood what the rules and norms of the relationship are. This finding indicates that face-to-face assurances and positivity are important factors to maintain the LDRRs as it associates with the certainty and uncertainty perceptions of LDRR couples.

The analysis of data also shows that SNS maintenance behaviors are important factors in LDRR relational uncertainty above and beyond the influence of face to face maintenance. Specifically, communicating positivity associated with perceptions of future and mutuality relationship uncertainty. More specifically, the more positivity communicated using SNSs by LDRRs, the more certain (i.e., less uncertain) the partners were about what the future holds for

the relationship and about whether their partner was as committed to the relationship as the participant. Distance may encourage couples to seek information about their romantic partners, and communication using SNSs meet the need.

Maybe most interesting, however, is the positive relationship between communicating openness on SNSs and future and mutuality relationship uncertainty. The data appear to show that communicating openly about the relationship can make partners feel MORE uncertain about what the future holds for the relationship and whether the partner has mutual feelings for the participant. This is the opposite of what I expected and what past research suggests about the relationship between openness and relationship uncertainty. SNSs provide users a space to share about their lives publicly. Some are open about their relational information whereas others are not comfortable doing so (Walters & Ackerman, 2011). There are also obstacles of being open in what should be said and what is left untold on SNSs (Baxter, 1990; Baxter & Montgomery, 1996). One more reason of the positive association between SNSs openness and uncertainties is that it may cause displeasing feelings for individuals who don't favor having their lives publicly shared on SNSs by their partners. It might also be that the communicating a great deal about the relationship is a sign of trouble for LDRRs. Being away from each other for long periods of time can put strain on the relationship creating doubts about the other's feelings and whether the relationship will last. Talking more about the relationship might be a sign that the troubles in the relationship require more discussion and negotiation of the relationship than might ordinarily be the case in a GCR.

Lastly, data analysis indicates that face-to-face openness has no significant association with any of the uncertainty type. One possible reason is that openness is not considered important behavior for

emerging adults because face-to-face provides adequate environment for couples to establish their maintenance behaviors without the openness need.

### Summary

In summary, this study provides new information about how people use communication to maintain their relationships in LDRRs. First, this study demonstrates that people in LDRRs do indeed rely more on mediated channels of communication than do GCR partners in maintaining their relationships. This makes sense given the lack of face to face communication opportunities for long distance daters. The study also found that texting and telephone conversations are used more frequently than social networking systems such as Facebook, Instagram, and Snapchat. Future research might focus on the use and consequences of these technologies for maintaining relationships. Perhaps prior literature that focus on Facebook are somewhat overblown at this time. Finally, this study is the first to account for face-to-face maintenance behavior when studying the use of social networking systems in maintaining relationships. Specifically, this study found that assurances communicated face to face are very important in managing relationship uncertainty in LDRRs. The study also found that engaging in behaviors such as being positive and cheerful in communicating over social networking systems is an important element in reducing relationship uncertainty. Finally, and most interestingly, is the finding that communicating frequently and openly about the relationship can increase uncertainty in LDRRs.

### Limitations

In summary, this study has a limitation of a sample size which may impact the results. The sample was rather small which could result in some unreliability of the results. In the future, a larger sample with participants from many universities would be preferable. The second limitation of this research is participant distribution and diversity. A large portion of participants are Caucasians and female is the dominant group to complete the survey. Research in the future should consider a larger

sample size for better results, and there should be a more diverse in participant backgrounds to represent a broader representation of maintenance behaviors across cultures.



## **APPENDIX A: MEASUREMENT INSTRUMENTS**

## **College Students use social networking sites to maintain long-distance romantic relationships Survey**

Consent Welcome! Thank you for taking the time to participate in my survey. This survey is part of a student research project, but your responses to the questions asked here will remain anonymous. This project will measure college students in long-distance romantic relationship and maintenance strategy using social networking site(s). You must be a college student participate in this survey. This survey will take approximately 30 minutes of your time.

Your participation in this survey is entirely voluntary. You are free to discontinue with your responses and withdraw at any time. No personally identifiable information will be collected, and your responses will remain anonymous.

This survey includes some questions that address the issue of using social networking site(s) as the main communicative channel between you and your romantic partner. These questions stress on your romantic interpersonal relationship and personal emotions.

By clicking “I Agree” you are agreeing to participate in this survey. If you have any comments, questions, or concerns, please contact the project leader My Bui at my349236@ucf.edu or the supervising faculty Dr. Harry Weger at harry.weger@ucf.edu

☐ I agree (1)

How old are you?

▼ 18 (1) ... 40 or older (23)

Please tell us your relationship status

☐ Friends (not involved romantically)

☐ Friends with benefits

☐ Just talking to each other

☐ Dating but not exclusive

☐ Committed dating

☐ Living together but not engaged

☐ Engaged

☐ Married

☐ Other \_\_\_\_\_

Please use the drop-down menu to tell us about how long have you been romantically involved with your partner?

▼ 3 months or less (1) ... 7 years or longer (16)

**We are interested in how physical distance between partners (either far OR near) and how people maintain those relationships. The next set of questions will help us to understand whether there is physical distance and about how much distance (if any) there is in your relationship.**

A long-distance relationship is defined as a relationship in which there is a considerable geographical distance between partners. It would be practically impossible for partners to see one another every day, and the majority of communication within the relationship is not face-to-face. Do you consider your current romantic relationship to be a long-distance relationship?

☐ Yes (1)

☐ No (2)

If at any time you and your partner have been long-distance, what are/were some of the reasons for being apart?

- ☒ Military Deployment (1)
- ☒ Attending school (2)
- ☒ Work related reasons (3)
- ☒ COVID-19 Quarantine (4)
- ☒ Living in different cities (5)
- ☒ Other (Please specify) (6) \_\_\_\_\_

What is the distance between you and your partner in miles (approximate is good enough)?

\_\_\_\_\_

How often do you see your partner face to face?

- ☐ Every day (1)
- ☐ Almost every day (2)
- ☐ About once per week (3)
- ☐ A few times per month (4)

☐ 1 time per month (5)

☐ A few times per year (6)

☐ About once a year (7)

☐ Other (please specify) (8) \_\_\_\_\_

### Communication Channel Use Scale

	Multiple times each day (5)	Once per day (4)	A few times per week (3)	Once or twice per month (2)	Rarely or Never (1)
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Texting (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing letters/notes on paper (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct messaging on Facebook, Instagram or other social networking sites (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone calls (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skype, FaceTime, or other video conferencing technology (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facebook (not including DMs) (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Twitter (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instagram (not including DMs) (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Snapchat (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Face to Face Maintenance Scale

We want to know how you communicate with your partner when you are with each other IN PERSON. Thinking about how you communicate when you are with your partner face to face, please tell us about how often you engage in the following behaviors:

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
I try to be cheerful and optimistic when I am with my partner. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid conflict with my partner. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am flirtatious with my partner. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I smile and act positive around my partner. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tell my partner what I want from our relationship. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have periodic talks about our relationship with my partner. (6)	<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. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can run a mile in under 3 minutes. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I attempt to talk to my partner about the quality of our relationship. (9)	<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 troubled. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I say "I love you" to my partner. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to be supportive and caring when interacting with my partner. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I assure my partner that I am committed to the relationship. (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



I try hard to listen to my partner's problems. (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I greet my partner every time we meet in person. (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish my partner a good day. (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I support my partner with his job/school work. (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I share with my partner about future plans with my partner. (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I give advice to my partner when s/he has problems. (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I discuss sensitive topics with my partner. (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Social Networks Relationship Maintenance Scale:

We are interested in the different ways people maintain their relationship, that is, how they keep the relationship in its current state. For these questions, we are interested in behaviors you engage in when communication with your partner on Social Networking Systems such as **Facebook, Instagram, Snapchat**, and so forth. For the next few items, please tell us how often you engage in these behaviors.

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
I post about experiences we have had together. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I support my partner when they post about bad news. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I coordinate future interactions with my partner. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I send my partner cheerful messages. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I sent direct messages to communicate privately. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I “like” my partner's posts. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I write something positive in a comment about my partner's posts.. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I look at my partner's profile. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I post on my account to receive attention from my partner. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I post an update to connect with my partner. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I seek support from my partner by posting about something the bothers me or make me happy. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I discuss with my partner about the quality of our relationship. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tell my partner I love them. (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I post or share pictures, stories, etc. I think my partner will enjoy. (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I respond in a timely manner when my partner sends me a direct message. (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I update or post messages to keep my partner up to date on my life. (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I post pictures, stories, etc., to share my thoughts about current events with my partner. (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I comment on my partner's posts so others will see our connection. (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I post/share future plans or events on my partner's profile. (19)

☐☐☐☐☐

I write a post to support my partner. (20)

☐☐☐☐☐

I write "I love you" on my partner's wall. (21)

☐☐☐☐☐

I post on my partner's wall to make my partner feel special. (22)

☐☐☐☐☐

### Relationship Uncertainty Scale

We are interested in how certain or uncertain people are about their relationship. For the following issues, please tell us how certain or uncertain you are about:

Very Uncertain (1)	Uncertain (2)	Certain (4)	Very Certain (5)
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what you can or cannot say to each other in this relationship (1)

☐☐☐☐

the boundaries for appropriate and/or inappropriate behavior in this relationship (2)

☐☐☐☐

the rules for this relationship (3)

☐☐☐☐

whether or not you and your partner feel the same way about each other (4)

☐☐☐☐

how you and your partner view this relationship (5)

☐☐☐☐

whether or not your partner likes you as much as you like him/her (6)

☐☐☐☐

the current status of this relationship (7)

☐☐☐☐

the definition of this relationship (8)

☐☐☐☐

how you and your partner would describe this relationship (9)

☐☐☐☐

the state of the relationship at this time (10)

☐☐☐☐

whether or not this is a romantic or platonic relationship (11)

☐☐☐☐

whether or not you and your partner will stay together (12)

☐☐☐☐

the future of the relationship (13)

☐☐☐☐

whether or not this relationship will end soon (14)

☐☐☐☐

where this relationship is going (15)

☐☐☐☐

Which of the following best describe your gender identity?

- ☐ Male (1)
- ☐ Female (2)
- ☐ Nonbinary (3)
- ☐ Transgendered (4)
- ☐ Other (5) \_\_\_\_\_

What is your ethnic background?

- ☐ American Indian or Alaskan Native (1)
- ☐ Asian or Pacific Islander (2)
- ☐ Black/African American (3)
- ☐ Hispanic/Latino (4)
- ☐ White/European (5)
- ☐ Other (6)

## **APPENDIX B: IRB OUTCOME LETTER**



UNIVERSITY OF CENTRAL FLORIDA

**Institutional Review Board**

FWA00000351  
IRB00001138, IRB00012110  
Office of Research  
12201 Research Parkway  
Orlando, FL 32826-3246

**EXEMPTION DETERMINATION**

April 3, 2020

Dear My Bui:

On 4/3/2020, the IRB determined the following submission to be human subjects research that is exempt from regulation:

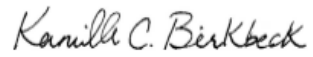
Type of Review:	Initial Study
Title:	Social networking sites to maintain long-distance romantic relationships of college students
Investigator:	My Bui
IRB ID:	STUDY00001503
Funding:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"><li>• HRP-251 - FORM - Faculty Advisor Review[4804].pdf, Category: Faculty Research Approval;</li><li>• IRB Bui 1503 Email to professors 4.3.20.docx, Category: Recruitment Materials;</li><li>• Recruiting email.docx, Category: Recruitment Materials;</li><li>• Survey Materials.docx, Category: Survey / Questionnaire;</li><li>• Update.pdf, Category: Consent Form;</li><li>• Update.docx, Category: IRB Protocol;</li></ul>

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or [irb@ucf.edu](mailto:irb@ucf.edu). Please include your project title and IRB number in all correspondence with this office.

**Due to current COVID-19 restrictions, in-person research is not permitted to begin until you receive further correspondence from the Office of Research stating that the restrictions have been lifted.**

Sincerely,

A handwritten signature in cursive script that reads "Kamille C. Birkbeck".

Kamille Birkbeck  
Designated Reviewer



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