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Bachelor of Arts, 2010
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Submitted to the Faculty
Graduate Division
College of Communication
Texas Christian University in partial fulfillment of the requirements for the degree of

## MASTER OF SCIENCE

May 2012

COLLEGE OF COMMUNICATION
पூTVT

## HOW DO WE KEEP IN TOUCH?: FACEBOOK, EVERYDAY TALK, AND FRIENDS' GEOGRAPHIC DISTANCE

Thesis approved:


# How Do We Keep in Touch?: Facebook, Everyday Talk, and Friends' Geographic Distance 

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This study considered the relationship between everyday talk and communication media, geographic distance, and closeness in the context of friendships. Participants included 213 adults from two colleges and those collected from the site Facebook.com. All participants completed surveys which included questions on their everyday talk use with friends across Facebook and face-to-face media, along with self-reports of closeness, relational length, and geographic distance of those friendships. Pearson's product-moment correlations supported both hypotheses, suggesting friends' use of Facebook and face-to-face everyday talk is positively associated with closeness. A series of Hotelling's t-tests for correlated correlations showed a stronger correlation between closeness and face-to-face everyday talk than closeness and Facebook everyday talk. These results showed the different types of everyday talk that friends engage in, specifically that long-distance friends were more likely to use Facebook task, relational, deep, superficial, and informal everyday talk in their relationship.

A series of 2 (participant sex) X 2 (communication media) repeated measures of analysis of covariance (ANCOVA) were also run. One ANCOVA was conducted for each of the five everyday talk types, showing five significant interaction effects between medium and distance. Specifically, local friends engaged in more Facebook everyday talk whereas long-distance friends engaged in more face-to-face everyday talk, clarifying previous nonsignificant findings between distance and relationship characteristics.

## TABLE OF CONTENTS

Theoretical Perspective ..... Page 8
Social Informational Processing Theory ..... Page 8
Media Multiplexity Theory ..... Page 9
Everyday Talk ..... Page 11
Facebook ..... Page 13
Geographic Distance ..... Page 15
Relational Closeness ..... Page 17
Method ..... Page 18
Participants ..... Page 18
Procedures ..... Page 19
Measures ..... Page 20
Data Analysis ..... Page 21
Results ..... Page 22
Table 1 ..... Page 23
Table 2 ..... Page 24
Table 3 ..... Page 27
Discussion ..... Page 29
References ..... Page 41
Bibliography ..... Page 41
Appendix ..... Page 46

## LIST OF TABLES

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1. Correlation Matrix Among 10 Everyday Talk Types <br> Page 23 <br> (5 Talk Types Across 2 Media)
}
2. Correlation Matrix Among 5 Everyday Talk Types and

Page 24
all other Variables of Interest
3. Means for Local and Long-Distance Friendships across 5

Page 27
Everyday Talk Types

How Do We Keep in Touch?: Facebook, Everyday Talk, and Friends' Geographic Distance Friendships are an integral part of life, providing a sense of well-being and positive selfesteem (Griffin \& Sparks, 1990), though geographic distance between friends may pose a threat to the stability of the relationship. However, some longitudinal studies (Griffin \& Sparks; Ledbetter, Griffin, \& Sparks, 2007) have demonstrated that although ongoing friendship is difficult, it is possible. While these studies lend support for the feasibility of maintaining longdistance relationships, they do not specifically take into account the use of technology as a resource for communication. With the advent of social networking sites, friends have numerous options for online communication to maintain their relationship.

One way that many people choose to maintain their long-distance friendships, as well as geographically close friendships, is through Facebook, a common medium for communication today (Johnson, Haigh, Becker, Craig, \& Wigley, 2008). With the introduction of technology, communication scholars have considered how the use of media, such as Facebook, are correlated with social capital, attitudes toward online media, and closeness (Aron, Aron, Bator, Melinat, \& Vallone, 1997; Ellison, Steinfield, \& Lampe, 2007; Ledbetter, Broeckelman-Post, \& Krawsczyn, 2011). For example, Walther, Van Der Heide, Hamel, and Shulman (2009) introduced the warranting principle, which states that when online, viewers will perceive information as most accurate when it is not subjective or easily manipulated. They supported this principle with their research on Facebook, the social networking site considered in this study.

Scholars have discovered that Facebook is used not only for impression formation, as the warranting principle would suggest, but also for building social capital. Ellison et al. (2007) found that using Facebook was correlated with several kinds of social capital, whereas Ledbetter et al. (2011) looked at the use of Facebook within specific interpersonal relationships. Taking
this research together, it seems that Facebook is used to foster social connections (Ellison et al.) and to contribute to a sense of relational closeness (Ledbetter et al.) between partners.

If friendships are relationships that are characterized by closeness and provide social capital, then it stands to reason that Facebook communication would contribute to these positive friendship characteristics. Yet, though many use Facebook to maintain their relationships, they also use face-to-face communication with their geographically close friendships, as well as their long-distance friendships when they see each other (Baym, Zhang, \& Lin, 2004). Thus, face-toface and online communication occur in both local and long-distance relationships. Moreover, face-to-face communication is often used in combination with Facebook communication to maintain relationships, as it provides another way to reinforce closeness and well-being, as well as an opportunity for spending time together. Despite the common occurrence and importance of such multiple-media relationships, scholars have often identified this relational multimodality but have seldom theorized or investigated it (Walther \& Parks, 2002).

Using social information processing theory (Walther \& Burgoon, 1992), and media multiplexity theory (Haythornthwaite, 2005), this study focuses on how the frequency of everyday talk differs between local and long-distance friends, differs by communication medium (specifically, face-to-face and Facebook communication), and predicts friendship closeness. This investigation builds from Goldsmith and Baxter's (1996) taxonomy of six everyday talk types further refined by subsequent research (Ledbetter et al., 2011; Schrodt et al., 2007). These everyday talk types encompass a variety of speech acts and are used in this study to compare the way friends communicate over Facebook and in person. Theoretically, then, this study aims to contribute to extant research on friendship by identifying the extent to which geographic distance and communication medium separately contribute to friendship closeness, thus answering the
call for research on multimodality (Walther \& Parks, 2002) and clarification of the similarities and differences between local and long-distance friendships (Johnson et al., 2008).

## Theoretical Perspective

## Social Information Processing Theory

One particularly useful theory for understanding differences in everyday talk between local and long-distance friends is social information processing theory (Walther \& Burgoon, 1992). They argued that social information accrues slowly across cue-limited, asynchronous media, such as many online channels. This means that with enough time, relational outcomes of online relationships should equal those that can be reached through face-to-face communication. This point is especially important for this study, for if relational outcomes can be the same online as face-to-face, then the comparison between Facebook and face-to-face communication is warranted.

Walther (1996) also advanced the hyperpersonal perspective, which is an extension of social information processing theory. The hyperpersonal perspective is a phenomenon whereby individuals become more intimate with others across online communication than they would when face-to-face. This hyperpersonal closeness is based on an idealized version of another person that is portrayed through online communication. In other words, because senders often portray idealized versions of themselves online, and receivers then further idealize their perception of the sender, communicators may experience heightened closeness online as compared to the level of closeness experienced in face-to-face relational development. From a social information processing perspective, the lack of cues in online, asynchronous environments provides an opportunity for the hyperpersonal perspective to occur, as online users can believe themselves to be closer to one another online than they would be in face-to-face interactions.

The hyperpersonal perspective describes relationships that are maintained exclusively online, though this study will consider friends who communicate online and offline.

To test social information processing, Van Der Heide and Walther (2009) looked at this theory in a persuasion context. From their experimental design and proposed model, they discussed the idea of cue strength, introducing the notion of a sticky cue. Such cues are especially revealing about another's character, allowing for impressions of another to form more quickly. In addition to sticky cues, they also discussed cue relevance and cue distinctiveness. Cue relevance refers to how pertinent a cue is in providing information about another person. Cue distinctiveness refers to how particular and unique a cue is. In other words, a cue would be distinctive when it only points to one aspect of another person.

The value of Van Der Heide and Walther's (2009) study is in further teasing out the importance of cues, which are a central component of social information processing theory (Walther \& Burgoon, 1992). Cues give communicators information about another person, aiding in impression formation and management. For the purpose of this study, everyday talk can serve as a social cue, contributing to communication between friends, whether online or offline. The frequency and types of everyday talk are likely related to each other, and these potential differences will be explored in a Facebook and face-to-face context.

Overall, social information processing theory is an excellent framework for understanding friendship closeness by considering everyday talk as a social cue whose outcomes may depend on medium synchronicity and cue richness. What the theory fails to address is how multiple media may function jointly to facilitate closeness. Media multiplexity theory (Haythornthwaite, 2005) is well-positioned to address this question.

## Media Multiplexity Theory

Media multiplexity theory predicts that closeness is positively associated with the number of media a dyad uses to communicate (Haythornthwaite, 2000, 2005; Haythornthwaite \& Wellman, 1998). Haythornthwaite considered this phenomenon as closely related to the strength of relational ties, delineating between weak ties and strong ties. Granovetter (1973) defined the strength of a tie as the amount of time invested, the emotional strength, the amount of mutual disclosure, and the reciprocal nature of a relationship. In the context of the larger social structure, Granovetter argued that a number of weak ties are indispensible, serving as social glue that binds society together and facilitates resource exchange between people.

However, considering only the strength of ties misses the need to understand the larger framework in which these ties fit together. Granovetter's (1973) study came years before Haythornthwaite (2005) developed media multiplexity theory, yet their work relates to one another. Granovetter showed that ties occur in the context of a larger network, which is similar to media multiplexity theory, which suggests people with stronger ties tend to communicate using more media than do those with weaker ties (Haythornthwaite, 2005).

Thus, media multiplexity would suggest that the closer the friendship, the more likely friends are to use both face-to-face and Facebook everyday talk. Haythornthwaite (2000) found evidence supporting the theory, as participants in her study with strong ties used more online media to communicate, showing the strength of their ties. This study aims to determine whether a similar effect holds true for face-to-face and online (Facebook) everyday talk.

Recent empirical research has also supported media multiplexity theory (Baym \& Ledbetter, 2009; Ledbetter, 2010). Baym and Ledbetter considered the site Last.fm, a social networking site that allows for music sharing. Results indicated that friendships on Last.fm characterized those with moderately weak ties, and those who used the site were more likely to
have established relationships off the site as well. Most relevant to this study, media multiplexity theory predicted Baym and Ledbetter's results, with communication across a variety of media predicting relational closeness. A similar pattern of results emerged in Ledbetter's study, as friends who used both face-to-face and online forms of maintenance were likely to have a greater sense of interdependence.

Thus, media multiplexity theory would suggest that friends who use both Facebook and face-to-face everyday talk have a higher level of closeness than friends using only one of these media. This proposition is consistent with social information processing theory as well, because tie strength is a function of information transmission in that theory (although the theory predicts face-to-face and offline communication develop closeness at different rates). With the theoretical foundation of social information processing and media multiplexity theory in place, this study examines friends' everyday talk as a particularly meaningful form of relational communication across both face-to-face and Facebook contexts.

## Everyday Talk

Duck (1994) argued that "the talk of everyday life" (p. 48) is what keeps relationships going. This talk also provides meaning for the relational partners, regardless of the content, and this meaning is what sustains relationships. Duck showed that people often engage in what could be considered trivial or meaningless talk, yet this does not mean it is not important to relational health. In fact, this superficial talk can provide understanding for the relationship, and is often a large part of the everyday talk in a given relationship. This type of everyday talk reinforces and confirms relational partners' shared meanings of the world, and allows them to share their experiences with one another. When considering how college students enact everyday talk,

Goldsmith and Baxter (1996) found that they engage in superficial and trivial talk as part of their relationships, which further emphasizes the importance of this talk.

Goldsmith and Baxter's (1996) taxonomy provides a framework for understanding and measuring everyday talk and, to date, is the most comprehensive conceptualization of such talk. Goldsmith and Baxter's typology of everyday talk types originally contained 29 different speech events identified along three dimensions. They also provided application points for using the taxonomy, showing the diversity of contexts in which it can be used. Following their work, several scholars have used this typology in their research (Ledbetter et al., 2011; Schrodt et al., 2007; Schrodt, Soliz, \& Braithwaite, 2008). This research is particularly relevant to this study, as their findings establish a basis for the examination of everyday talk.

Schrodt and colleagues (2007) considered everyday talk in the context of stepfamilies. Using Goldsmith and Baxter's (1996) typology as a starting point for item generation, they developed a quantitative measure of 20 distinct everyday talk types relevant to family contexts. Some of these behaviors refer to more superficial topics such as joking around and gossip, answering Duck's (1994) call for a focus on more superficial forms of communication, though they also included deeper forms such as relationship talk and serious conversation. Schrodt and colleagues (2008) used the same variation of Goldsmith and Baxter's taxonomy in their work as well, which considered the relationship between everyday talk and relational satisfaction in stepfamilies. Both of these studies provide a model for considering everyday talk in families, though this study will look specifically at everyday talk in friendships.

Ledbetter and colleagues (2011) further validated Goldsmith and Baxter's (1996) taxonomy by identifying five factors of everyday talk, and importantly for this study, demonstrated their validity across face-to-face, telephone, and online contexts. These five
factors, which are superficial, informal, deep, relational, and task everyday talk, provide a framework for comparing face-to-face and Facebook communication. As the literature shows, there are options for conceptualizing everyday talk in research, ranging from micro-level (e.g., specific behaviors; Schrodt et al., 2007) to macro-level (e.g., everyday talk as unidimensional; Schrodt et al., 2008) assessments of the construct. This study uses Ledbetter and colleagues' meso-level categorization of the everyday talk behaviors into five factors, as this allows for comparison across communication media and geographic distance of friendships. Though Schrodt and colleagues' work (2007) shows the usefulness of keeping the everyday talk events separate, this study lends itself to categorization of types of everyday talk, particularly as Ledbetter and colleagues' work was in a multiple media context, as this is also the case in this study. Comparing each of the events across the dimensions of this study would prove too cumbersome, and using the five factors allows for putting some of the events together into larger categories for an ease of comparison.

This investigation will extend the foregoing research by considering how medium, geographic distance, and relational closeness predict everyday talk between friends. As Duck (1994) called for more research to be on everyday, seemingly trivial behaviors, I will also answer that call in providing research on a wide variety of everyday talk behaviors. This will extend Ledbetter et al.'s (2011) work by using the five categories across face-to-face and Facebook contexts. As Facebook is such a central component of this study, some of the site's history and recent popularity are relevant to the rationale for this investigation.

## Facebook

Although everyday talk can occur through several communication media (Ledbetter et al., 2011), Facebook's popularity renders it a particularly meaningful context for investigation.

Facebook is an online social networking site open to the public, allowing for users to communicate publicly on one another's walls, privately via e-mail messages and chat, and share media content such as pictures, videos, and articles. Since its inception in 2004, the site has increased in popularity, and by the end of December 2011, there were 845 million active users every month (http://newsroom.fb.com). Facebook is not the only site of its kind, though it is arguably the most popular one. MySpace.com, the next largest social networking site, does not have nearly as many users as Facebook. According to Barnett (2011), MySpace had 100 million users at its peak, which pales in comparison to the 845 million Facebook users per month. With its number of users on the decline, MySpace is a much less popular and viable site for research than Facebook.

Although these numbers establish the prevalence and popularity of Facebook, meaningful interpersonal communication occurs through many other media as well. Indeed, previous research (e.g., Ledbetter, 2009) has documented interpersonal communication across technologies such as telephones, e-mail, postal mail, blogs, and online discussion boards. Attempting to account for all of these media forms would have rendered analysis difficult due to the multicollinearity among media forms in Ledbetter's work, perhaps obscuring the unique contributions of Facebook and face-to-face everyday talk. Thus, given the theoretical goals of the current investigation, I focused on these latter media only.

A small, yet growing, body of research has considered relational communication across Facebook (Bryant \& Marmo, 2009; Wright, Craig, Cunningham, Igiel, \& Ploeger, 2008). Facebook can serve a variety of functions depending on the user's purpose for the site (Bryant \& Marmo), and users of the site are often casual friends who consider themselves acquaintances (Wright et al.). Since many of the participants in their study identified themselves as
acquaintances, Wright and colleagues showed that surveillance is a common use of the site. They defined this as checking up on friends, which includes activities such as viewing another's profile and pictures.

With surveillance, bidirectional communication is not occurring, though people are observing one another's comments and pictures. Yet this observation can inform the viewer and may serve a relational maintenance purpose (Ledbetter et al., 2011). In terms of everyday talk, the surveillance itself would not qualify as communication, yet communication following such surveillance is an extension of this concept. Through a social information processing lens, surveillance could serve as a type of cue, aiding friendship dyads using online media in getting to know one another better. In other words, looking at a friend's wall or pictures may spark conversation, whether that becomes a post on the person's wall, a comment on a photo, or a private message.

Thus, as Facebook can and does serve a variety of functions for a friendship, this study will help clarify and increase the existing body of knowledge on this site. Facebook is a global site and connects people from around the world, allowing local and long-distance friends to communicate with one another. To look further at this distinction between local and longdistance friends, geographic distance is another construct considered in this study.

## Geographic Distance

Distance is a construct that scholars have looked at in the context of e-mails (Johnson et al., 2008), through a relational uncertainty framework (Dainton \& Aylor, 2001), and in challenges associated with relationship maintenance (Merolla, 2012). Johnson and colleagues and Dainton and Aylor compared local and long-distance friendships, though Merolla was looking only at long-distance relationships. In their comparison work, Johnson and colleagues
did not find significant differences between local and long-distance friendships on variables such as relational maintenance and closeness, a pattern of findings that is neither intuitive nor necessarily predicted by extant theories of close relationships. Despite the value of this research, one weakness is the failure to consider whether the media through which partners communicate may account for these nonsignificant findings. In other words, one goal of this investigation is to interrogate this empirical puzzle by examining whether communication media moderates the relationship between geographic distance and everyday talk frequency.

Some evidence supports the existence of such moderation. For example, in Dainton and Aylor's (2001) work, long-distance partners who had occasional face-to-face contact were more likely to be certain of their relationship than those who did not have the same opportunity for face-to-face communication. This makes sense in light of media multiplexity theory, as those who use multiple forms of communication have stronger ties (Haythornthwaite, 2005). Partners who were able to communicate face-to-face had an added opportunity to reinforce their relationship, which was related to an increased certainty about the state of their relationship. The same should be true when looking at the frequency of Facebook communication in conjunction with face-to-face communication.

Merolla (2012) identified the behaviors partners used to maintain their relationship before, during, and after a time of separation and distance across several types of relationships. This led to a model of long-distance maintenance, though the results did not determine specific behaviors that were most important to a dyad during times of long-distance separation. Although Merolla created a model that shows relationships between some of the periods of separation, there is more work to be done to determine the specific behaviors that lead to positive forms of support. This suggests a need to determine some of the specific everyday talk behaviors that
could lead to sustaining a relationship. Though I will not be looking at support specifically, specific everyday talk behaviors and their relationship to distance is an important part of this study.

The existing work provides ample theoretical rationale for considering communication medium as a moderator of the relationship between geographic distance and everyday talk frequency. More specifically, as social information processing (Walther \& Burgoon, 1992) and media multiplexity theory (Haythornthwaite, 2000; 2005) would suggest, there are differences in the way relationships are communicated online. According to social information processing, an asynchronous, online form of communication, such as Facebook, would require more time to reach the same level of closeness. Media multiplexity theory suggests that dyads with stronger ties will use more media to communicate in their relationship. Thus, this would lead one to believe that close friends use both Facebook and face-to-face everyday talk, signifying the strength of their relationship.

## Relational Closeness

Closeness is a control variable in this study to determine potential differences between face-to-face and Facebook everyday talk across local and long-distance friendships. Having this as a factor could influence face-to-face or Facebook communication, for a high frequency of everyday talk across these media would likely impact friends' corresponding levels of closeness. In the context of media multiplexity and social information processing theories, which together provide a guiding theoretical framework, some predictions can be made about the relationship between Facebook and relational closeness. Social information processing theory showed that given enough time, dyads become close when using a cue-limited medium (Walther \& Burgoon,
1992). In media multiplexity theory, Haythornthwaite (2005) suggested that using more media reinforces a relationship and shows a high level of closeness.

Taking together the foregoing theory and research, then, it is unclear how medium and geographic distance function together to predict frequency of everyday talk. Media multiplexity theory (Haythornthwaite, 2005) suggests everyday talk should be positively associated with relational closeness, regardless of the medium through which such talk occurs. However, the theory does not clarify whether communication across one medium might be more strongly associated with closeness than communication across another medium. Thus, the following hypotheses and research question are posed:

H1: Facebook everyday talk is positively associated with relational closeness.
H2: Face-to-face everyday talk is positively associated with relational closeness.
RQ1: Does the magnitude of the association between Facebook everyday talk and closeness differ between face-to-face everyday talk and closeness?

Moreover, both media multiplexity theory (Haythornthwaite, 2005) and social information processing theory (Walther, 1996) suggest closeness is an important control variable when predicting everyday talk frequency, with the latter theory providing rationale for controlling relationship length as well. Following these theories and related research, a chief goal of this investigation was to assess the extent to which communication medium predicts frequency of everyday talk after controlling for theoretically related variables:

RQ2: After controlling for closeness, relationship length, and geographic distance, does communication medium predict frequency of everyday talk?

## Method

## Participants

There were 213 participants in this study, and all had a Facebook account. The average age was 21 years old $(S D=4.44)$, with a range of 17 to 60 years old. There were 84 male participants ( $39.3 \%$ of the sample) and 130 female participants ( $60.7 \%$ of the sample). The majority of the participants were White (73.4\%), though 5.6\% were African American, $8.9 \%$ were Hispanic American, $3.7 \%$ were Asian American, and $8.4 \%$ were of another ethnicity. The average friendship length was 5.06 years $(S D=4.35)$. For the geographic distance of participants, 129 participants were part of a local friendship, and 84 participants were part of a long-distance friendship.

## Procedures

Participants were recruited by (a) soliciting participation from communication studies courses at a private university in the Southwest United States, (b) additional solicitation from a private teaching college in the Midwest United States, and (c) announcements on Facebook. Before taking the survey online, participants had to agree to the informed consent (see Appendix). Participation in the survey was voluntary and anonymous. Some professors offered credit for their classes, though there was always an alternate assignment available. All student participation occurred outside of class, and the survey took approximately 30 minutes. For those participants who took the survey via Facebook, they participated on their own time and did not receive reimbursement of any kind for doing so.

To choose a Facebook friend, participants were instructed to log into their Facebook account in a separate browser. They looked at the first person appearing in their News Feed who they would consider a friend, which means that person could not be a romantic partner or family member. They were instructed to complete the rest of the survey with that friend in mind. To categorize whether this friend was a local or long-distance friend, they had to answer the
question, "How would you describe your friendship with this person?", choosing acquaintance, casual friend, close friend, best friend, or other.

## Measures

Everyday talk. I measured everyday talk by using Ledbetter et al.'s (2011) everyday talk instrument. This scale was developed based on previous work from Schrodt et al. (2008), as well as Goldsmith and Baxter (1996). This is a 24 -item instrument with a 5-point Likert type scale, with options ranging from 1 (never) to 5 (regularly). As we were aiming to measure everyday talk in the face-to-face context as well as Facebook, we included two copies of the scale. We prefaced each section with a clarifying statement as to what the items were referencing.

For example, the face-to-face section began with the statement, "When FACE TO FACE (Indicate 'Never' for all questions if you don't communicate FACE TO FACE)...". Sample items from this section include, "How often do you talk about shared events you experienced together in the past?" and "How often do you have serious conversations where you are both involved in an in-depth conversation about some personal or important topic?" (Ledbetter et al., 2011).

We further subdivided the face-to-face everyday talk scale into five categories: superficial talk, informal talk, task talk, deep talk, and relational talk. Previous studies, including Baxter and Goldsmith (1996) and Schrodt et al. (2008), established acceptable reliability and validity for the everyday talk typology overall, and each dimension obtained acceptable reliability in the current investigation: superficial talk ( $\alpha=.63$ ), informal talk ( $\alpha=$ $.90)$, task talk $(\alpha=.90)$, deep talk $(\alpha=.89)$, and relational talk $(\alpha=.80)$.

For Facebook everyday talk, we began with the sentence, "When using FACEBOOK (indicate 'Never' for all questions if you don't communicate using FACEBOOK)...". The items were the same as those used for the face-to-face everyday talk portion, and included statements such as "How often do you engage in playful talk to have fun or release tension?" and "How often do you have one-way conversations, where one of you grills the other person with questions?" (Ledbetter et al., 2011).

We also divided the Facebook everyday talk scale into the same five categories as the face-to-face everyday talk scale: superficial talk, informal talk, task talk, deep talk, and relational talk. Superficial $(\alpha=.78)$, informal $(\alpha=.81)$, task $(\alpha=.89)$, deep $(\alpha=.85)$, and relational ( $\alpha=$ .73) talk types all showed acceptable reliability for Facebook everyday talk.

Closeness measure. We measured closeness with Vangelisti \& Caughlin's (1997) closeness measure. This 7-item measure began with the statement, "Please indicate the degree to which you agree with the following statements regarding your friendship using the scale below." Participants responded using a 7-point, Likert type scale ranging from 1 (not at all) to 7 (very much). This was in response to questions such as, "How satisfied are you with your relationship with your friend?" and "How important is your friend's opinion to you?" Numerous previous studies have demonstrated the validity and reliability of this measure of relational closeness (e.g., Ledbetter \& Kuznekoff, 2012).

## Data Analysis

Pearson product-moment correlations evaluated the two hypotheses. For the first research question, I used a series of Hotelling's t-tests for correlated correlations. For the second research question, I used a series of 2 (participant sex) X 2 (communication media) repeated measures analyses of covariance (ANCOVA), with participant sex entered as a between-subjects
factor and communication medium as a within-subjects factor. One ANCOVA was also conducted for each of the five everyday talk types.

## Results

Table 1 reports correlations among the ten dimensions of everyday talk (5 talk types X 2 media), and Table 2 reports correlations between the everyday talk types and the other variables of interest in the study (closeness, geographic distance, and relationship length).

Table 1
Correlation Matrix $(N=213)$

| Variables | M | $S D$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. (FTF) superficial | 2.19 | 0.96 | -- |  |  |  |  |  |  |  |  |
| 2. (FTF) informal | 3.24 | 1.14 | . $52 * *$ | -- |  |  |  |  |  |  |  |
| 3. (FTF) task | 2.59 | 0.99 | . $57 * *$ | .80** | -- |  |  |  |  |  |  |
| 4. (FTF) deep | 2.65 | 1.10 | .44** | .77** | .79** | -- |  |  |  |  |  |
| 5. (FTF) relational | 2.52 | 0.96 | .45** | .73** | .74** | .79** | -- |  |  |  |  |
| 6. (FB) superficial | 1.80 | 0.91 | .44** | . 05 | . 13 | . 09 | . 09 | -- |  |  |  |
| 7. (FB) informal | 2.63 | 1.01 | . 20 ** | . $36 * *$ | . $24 * *$ | . $34 * *$ | . 25 ** | . $47 * *$ | -- |  |  |
| 8. (FB) task | 2.08 | 0.90 | .24** | .25** | . $37 * *$ | . $34 * *$ | .28** | . $52 * *$ | . $62 * *$ | -- |  |
| 9. (FB) deep | 2.04 | 0.93 | .14* | .14* | .19** | . $34 * *$ | .20** | .54** | .66** | .70** | -- |
| 10. (FB) relational | 2.11 | 0.83 | .16* | .19** | .22** | . 31 ** | .38** | . 51 ** | .66** | .68** | .67** |

* $p<.05$ ** $p<.01$

Table 2
Correlation Matrix $(N=213)$

| Variables | Closeness | Distance | Relational <br> Length |
| :--- | :--- | :--- | :--- |
| 1. (FTF) superficial | $.30^{* *}$ | $-.14^{*}$ | -.04 |
| 2. (FTF) informal | $.53^{* *}$ | $-.16^{*}$ | -.09 |
| 3. (FTF) task | $.58^{* *}$ | $-.24^{* *}$ | -.03 |
| 4. (FTF) deep | $.61^{* *}$ | -.11 | .06 |
| 5. (FTF) relational | $.59^{* *}$ | -.13 | -.02 |
| 6. (FB) superficial | $.19^{* *}$ | .08 | .11 |
| 7. (FB) informal | $.41^{* *}$ | .09 | .11 |
| 8. (FB) task | $.33^{* *}$ | -.05 | .05 |
| 9. (FB) deep | $.32^{* *}$ | .09 | .10 |
| 10. (FB) relational | $.38^{* *}$ | $.14^{*}$ | .09 |
| 11. Closeness | -- | -.04 | .12 |
| 12. Geographic | -- | $.30^{* *}$ |  |
| Distance |  |  |  |

The first hypothesis predicted that Facebook everyday talk is positively associated with relational closeness, and closeness was significantly and positively associated with all types of everyday talk. Thus, this hypothesis was supported for all five everyday talk dimensions: superficial $(r=.19, p<.01)$, informal $(r=.41, p<.01)$, task $(r=.33, p<.01)$, deep $(r=.32, p<$ $.01)$, and relational ( $r=.38, p<.01$ ). The second hypothesis predicted that face-to-face everyday talk is positively associated with relational closeness. This hypothesis was also supported for all five everyday talk dimensions: superficial ( $r=.30, p<.01$ ), informal ( $r=.53, p$ $<.01)$, task $(r=.58, p<.01)$, deep $(r=.61, p<.01)$, and relational $(r=.59, p<.01)$.

The first research question asked whether the correlations between Facebook everyday talk and closeness differ from the correlations between face-to-face everyday talk and closeness. According to a series of Hotelling's $t$-tests for correlated correlations, the correlations between closeness and superficial everyday talk $(z=1.62, p>.05)$ and between closeness and informal everyday talk $(z=1.89, p>.05)$ did not differ across media contexts. However, correlations significantly differed for task everyday talk, with face-to-face task talk correlated with closeness more strongly $(z=3.74, p<.01)$. This was also the case for deep everyday talk $(z=4.35, p<$ $.01)$ and relational everyday talk $(z=3.33, p<.01)$.

The second research question was concerned with the extent to which communication medium and geographic distance predict everyday talk after controlling for relational closeness and relationship length. This research question was tested via a series of 2 (participant sex) X 2 (communication medium) repeated-measures analyses of covariance (ANCOVA), with participant sex entered as a between-subjects factor and communication medium as a withinsubjects factor. Relationship length and relational closeness were mean-centered and entered as covariate predictors. One ANCOVA was conducted for each of the five everyday talk types.

Two consistent results emerged across all five ANCOVAs: (a) a positive relationship between relational closeness and everyday talk and (b) a significant interaction between medium and distance on everyday talk. More specifically, in all analyses, face-to-face everyday talk was more frequent in local friendships, whereas Facebook everyday talk was more frequent in longdistance friendships. Table 3 shows the differences in the means for all the variables.

For superficial talk, there was a medium main effect; that is, participants used face-toface everyday talk more frequently to discuss superficial topics than Facebook, $F(1,209)=$ 25.99, $p<.01$, partial $\eta^{2}=$.11. Closer friends used more superficial talk than those who were not as close, $F(1,209)=3.34, p>.05$, partial $\eta^{2}=.02$. Most germane to the second research question, medium and geographic distance interacted to predict superficial everyday talk, $F(1$, 209) $=5.67, p<.05$, partial $\eta^{2}=.03$.

Like superficial talk, a significant main effect for medium emerged for informal talk, $F(1$, 209) $=46.68, p<.01$, partial $\eta^{2}=.18$, such that informal talk was more frequent when face-toface than across Facebook. Unexpectedly, medium significantly interacted with relational closeness, $F(1,209)=6.36, p<.05$, partial $\eta^{2}=.03$, and relationship length, $F(1,209)=4.12, p$ $<.05$, partial $\eta^{2}=.02$, as a predictor of informal everyday talk. Conducting Hotelling's t-test for correlated correlations on the partial correlations (i.e., controlling for relationship length and geographic distance) between closeness and informal talk across the two medium conditions decomposed the interaction between medium and closeness.

Results revealed a significant difference between these partial correlations, such that closeness is more strongly associated with face-to-face informal talk $(r=.54, p<.01)$ than with Facebook informal talk $(r=.41, p<.01)$ after controlling for distance and length $(z=2.12, p<$ .05). The interaction between medium and relationship length was decomposed similarly,

Table 3
Means Table $(N=213)$
Means for Local and Long-Distance Friendships across Everyday Talk Categories

| Variables | (FTF) Local | (FTF) Long- <br> Distance | (FB) Local | (FB) Long- <br> Distance |
| :--- | :--- | :--- | :--- | :--- |
| 1. Superficial <br> Everyday Talk | 2.29 | 2.02 | 1.74 | 1.89 |
| 2. Informal | 3.38 | 3.01 | 2.56 | 2.75 |
| Everyday Talk <br> 3. Task Everyday | 2.78 | 2.30 | 2.12 | 2.02 |
| Talk | 2.75 | 2.50 | 1.98 | 2.14 |
| 4. Deep Everyday <br> Talk | 2.61 | 2.37 | 2.01 | 2.26 |
| 5. Relational <br> Everyday Talk |  |  |  |  |

revealing that length is inversely associated with face-to-face informal talk ( $r=-.14, p<.05$ ), but not with Facebook informal talk $(r=.03, p>.05), z=1.99, p<.05$. Supporting the second research question, medium and distance interacted to predict informal talk frequency, $F(1,209)=$ 6.37, $p<.05$, partial $\eta^{2}=.03$.

For task talk, the medium by closeness effect was apparent from the results of the first research question, such that closer friends used more task talk than friends who are not as close, $F(1,209)=15.18, p<.01$, partial $\eta^{2}=.07$. Interestingly, the ANCOVA analysis revealed that there was a main effect for distance, with local friends engaging in more task talk than longdistance friends, $F(1,209)=6.86, p<.01$, partial $\eta^{2}=.03$. Of greater interpretive importance, distance and medium interacted to predict frequency of task talk, such that face-to-face task talk was more common among long-distance friends than local friends, $F(1,209)=4.79, p<.05$, partial $\eta^{2}=.02$.

For deep everyday talk, a medium by closeness effect is apparent from the results of the first research question. In other words, those who were closer friends used more deep talk than those who were not as close, $F(1,209)=2.26, p<.01$, partial $\eta^{2}=.10$. There was also an interaction effect between medium and distance, $F(1,209)=5.13, p<.05$, partial $\eta^{2}=.02$. This means that local friends were more likely to engage in more frequent face-to-face deep everyday talk, though long-distance friends were more likely to engage in more frequent Facebook deep everyday talk.

Similar to deep talk, a medium by closeness interaction effect is also apparent for relational talk from the results of the first research question, $F(1,209)=14.40, p<.01$, partial $\eta^{2}$ $=.06$. Those who were closer friends used more relational talk than those who were not as close. In addition, a medium by distance effect also emerged for relational talk, $F(1,209)=9.34, p<$
.01, partial $\eta^{2}=.04$. In other words, those who were long-distance friends engaged in more frequent deep talk on Facebook than those who were local friends communicating on Facebook. When communicating face-to-face, friends were more likely to use relational talk with a local friend than a long-distance one.

## Discussion

Following media multiplexity theory's (Haythornthwaite, 2005) prediction that multiple media use is positively associated with tie strength, and ambivalent results of previous research on relational communication and geographic distance (e.g., Johnson et al., 2008), the main goal of this study was to determine the extent to which friends' everyday talk frequency varies as a function of communication medium (face-to-face or Facebook) and geographic distance. The results revealed some important associations among these variables, finding support for both the hypotheses, as well as showing associations between everyday talk and medium (RQ1) and showing how communication medium and geographic distance predict everyday talk after controlling for relational closeness and relationship length (RQ2). As such, these results clarify previous research obtaining non-significant relationships between geographic and relational outcomes by identifying communication medium as a moderating factor of those associations.

Both hypotheses were derived from Haythornthwaite's (2005) and Walther and Burgoon's (1992) theoretical perspectives on mediated interpersonal communication and relationship closeness. In media multiplexity theory, Haythornthwaite suggested that close ties would use more forms of communication to reinforce their closeness. The first and second hypotheses supported this claim, as both Facebook everyday talk and face-to-face everyday talk were positively associated with closeness across all types of everyday talk. These results also
confirmed previous research on closeness across communication media (e.g., Baym \& Ledbetter, 2009).

Social information processing theory (Walther \& Burgoon, 1992) proposed that given enough time, those communicating online are able to reach the same level of closeness as those communicating face-to-face. Given this claim, the main analyses for this study controlled for relationship length, yet no main effects emerged for it. Moreover, although relationship length was positively associated with geographic distance, neither was significantly associated with relationship closeness. Although this investigation drew from social information processing theory rather than testing it directly, this pattern of results is consistent with Walther's claim that both face-to-face and mediated channels can effectively sustain interpersonal relationships. Friends who communicate using Facebook are likely to have relational closeness, just as those who communicate face-to-face are likely to have relational closeness.

The results of these hypotheses also confirmed previous work on the relationship between communication across media and corresponding relational closeness (Baym \& Ledbetter, 2009; Ledbetter, 2010). Similar to Baym and Ledbetter's finding that communication across a variety of media predicted relational closeness, both Facebook and face-to-face everyday talk were related to relational closeness in this study. Ledbetter also confirmed media multiplexity theory through finding that both face-to-face and online forms of maintenance were likely to have a greater sense of interdependence, which is similar to this finding that relational closeness was maintained across communication media. Thus, all of this makes sense in light of media multiplexity theory (Haythornthwaite, 2000), as communication across a variety of media predicts relational closeness.

For the first research question, considering the correlation between Facebook and everyday talk and closeness versus the correlation between face-to-face everyday talk and closeness, the results revealed differences for task, deep, and relational talk (and, when controlling for relationship length and distance, also for informal talk). However, there were no differences in superficial everyday talk; given that this talk type is relatively banal, this may suggest that Facebook is an equivalent venue for such talk regarding its contribution to relational closeness. For the other everyday talk types, closeness was more strongly associated with face-to-face everyday talk than Facebook everyday talk. This is a meaningful finding because it suggests there is a medium effect, which is a claim previous research had not found (Johnson et al., 2008; Merolla, 2012; Stafford, 2008). Thus, this work helps clarify the differences between local and long-distance friends, suggesting that these types of friends are more likely to use one medium over another.

Although correlation is only weak evidence of causation, this result that closeness is more strongly correlated with face-to-face everyday talk is consistent with Walther and Burgoon's (1992) research. Walther suggested that face-to-face communication allows for relational maintenance and development more efficiently than mediated channels. Thus, as Facebook is one form of an online channel, achieving the same level of closeness on this site as on an offline channel takes more time. Walther's claim can also help explain why informal everyday talk was not as strongly related to closeness as task, deep, and relational talk. As informal everyday talk could be considered a shallower form of communication than the other three, there is likely a weaker connection with how they foster relational development. If they are not as strongly related to relational development as task, deep, and relational everyday talk, then it stands to reason that it would take more time to reach the same level of closeness using superficial and
informal talk. Thus, given more time, perhaps there would be the same levels of closeness associated with these two types of everyday talk using Facebook.

In accounting for relational length and distance, a suppression result emerged for informal talk. This partial correlation suggests that informal face-to-face everyday talk is more strongly associated with closeness than informal Facebook everyday talk after taking geographic distance and relationship length into account. This makes sense, as many people engage in face-to-face, informal talk with others daily. For example, when going to the grocery store or running other errands, people often discuss informal topics, such as the weather, with strangers. For students, friends at school engage in similar informal exchanges, such as talking about class and grades. The same is true for members of a workplace, who may discuss a recent sports game or activities they participated in over the weekend, whether or not the coworker is a strong or weak tie. Regardless of the context, these examples illustrate scenarios of engaging in face-to-face, informal everyday talk, all of which help explain how friends can reach a deeper level of closeness. Discussing seemingly trivial topics may be the first step in relational development, as Altman and Taylor (1973) suggested. They showed that relationships develop over time from superficial topics to deeper topics, and as deeper topics are discussed, the level of closeness in that relationship increases. This is based on the principle of reciprocity, which suggests that as one relational partner shares information, the other relational partner shares personal information as well.

Task, relational, and deep everyday talk were all more strongly related to closeness face-to-face than through Facebook. There are a number of possibilities for this result. Face-to-face communication may be the preferred option for discussing deep topics, as some may consider it more personal than an online environment. Others may feel more comfortable communicating
face-to-face if they do not have experience with online communication. In addition, face-to-face communication is not asynchronous, which means closeness can be developed more quickly over time than through using online media (Walther \& Burgoon, 1992).

Though the results of this study are divided into five everyday talk types, Goldsmith and Baxter (1996) also discussed how to group and categorize their typology, noting the importance of considering relationship type. In this study, I considered everyday talk in friendships, and though we looked at closeness as a variable, I did not categorize our data by type of friendship. Perhaps these results would be different had I looked at closeness as a factor of different levels of friendship. Though friends may still prefer using face-to-face communication in discussing deeper topics, close friends may find an online source such as Facebook equally suitable. In other words, friendship type may be a moderating factor in the association between media use and closeness.

In considering the importance of relationship type, Granovetter (1973) argued that weak ties are also important ties, for they can serve a bridging function in networks. Bridges serve as connections between two people in a network. In terms of friendships, then, friendship dyads that are not as close may still serve a type of bridging function in a network of relationships. In serving this bridging function, these weak ties may prefer using both Facebook and face-to-face everyday talk, as a variety of media would allow for more opportunities for communication and connection. Though Granovetter's work did not consider the use of media in relation to the strength of ties, Haythornthwaite (2000) found that closer ties used more frequency and more forms of media to communicate with one another. For example, weak ties used only one medium for communication, and the strongest ties used two to four media for communication.

Similar to Granovetter's (1973) argument, Haythornthwaite (2000) showed that different ties serve different functions, whether exchanging information for the weakest ties or exchanging emotional support for the strongest ties. Haythornthwaite found that across four categories of ties, the closest ties used more media. This supports the likelihood that friendship type could serve as a moderating factor between media choice and closeness. If stronger ties used more forms of media and engaged in more frequency of communication, and weaker ties used fewer forms and engaged in less frequent communication, the same should be true of friendships. Though Granovetter and Haythornthwaite were not exclusively considering friendships, this relationship type is one kind of tie within a network. Future research could determine whether friendship types do serve this moderating function.

Haythornthwaite (2005) suggested that everyday talk should be positively associated with relational closeness, regardless of the medium, and the results for both hypotheses confirmed this. Both Facebook everyday talk and face-to-face everyday talk are associated with closeness in friendships. However, Haythornthwaite did not suggest whether communication across one medium is more strongly associated with closeness than across another medium, which is what the first research question clarified. The second research question clarified not only closeness, but also shed light on the interaction between geographic distance and the choice of communication medium in a friendship.

## Geographic Distance

After controlling for relational closeness and relationship length, the second research question was concerned with the extent to which communication medium and geographic distance predict everyday talk frequency. Though there has been some research on local and long-distance relationships and communication (Johnson et al., 2008; Merolla, 2012; Stafford,
2008), such prior research has not included communication medium as a moderating factor. Thus, the second research question was proposed to determine whether medium and distance interact to predict everyday talk frequency. The results of the second research question showed a positive relationship between relational closeness and everyday talk and a significant interaction between medium and distance on everyday talk across all five talk types. Local friends were more likely to use face-to-face everyday talk, while long-distance friends were more likely to use Facebook everyday talk. There were also some significant differences in the specific everyday talk types.

Previous scholars (e.g., Johnson et al., 2008) did not find main effects for geographic distance, and though we did not find such main effects either, there were five significant interaction effects between medium and distance. This pattern of results provides an initial answer to this puzzling lack of association, demonstrating that there is, indeed, a connection between distance and communication frequency when medium is taken into account. More research is needed to clarify and tease out this finding, though this is an excellent starting point for researching geographic distance and communication media in friendships.

These interaction effects between medium and distance also clarify work on the use of communication in long-distance relationships (Merolla, 2012; Stafford, 2008). Stafford suggested that computer mediated communication (CMC) would not dramatically change relationships that were already close face-to-face, but rather serve a function for small talk as Duck (1994) suggested. However, these significant interaction effects across everyday talk types show that though long-distance friends use Facebook for informal and superficial everyday talk, they also use it for relational and deep talk. In using CMC for a variety of everyday talk categories, including deep and relational talk, it could be argued that these deeper forms of
everyday talk could help foster relational development in conjunction with the shallower forms of everyday talk. However, face-to-face task talk was more common among long-distance friends than local friends. This makes sense, as long-distance friends would likely use reunions, which involve face-to-face talk, as a way to accomplish tasks.

Though this talk through Facebook may not dramatically change a relationship, it provides an opportunity for sustaining a long-distance tie. Merolla (2012) also suggested a need to identify specific behaviors enacted during long-distance relationships, and these results clarify some of those behaviors into categories. These interaction effects show the different types of everyday talk that friends engage in, specifically that long-distance friends were more likely to use Facebook relational, deep, superficial, and informal everyday talk in their relationship.

In one way, this finding that local friends engage in more face-to-face talk than longdistance friends (who engage in more Facebook talk) is not too surprising. Distance in friendships often determines the availability of certain forms of communication. Long-distance friends do not have the same opportunity to communicate face-to-face, which is likely why they engaged in more communication through Facebook instead. This was true across superficial, informal, task, deep, and relational talk, which further strengthens this finding. The use of online communication does not mean that the quality of a relationship will suffer, however. Walther and Parks (2002) discussed the implications of using the Internet for communication, noting that though there is a learning curve, once users know how to use this medium for their advantage, it can serve a social support and maintenance function. This is similar to Walther and Burgoon's (1992) claim that relationships developed online can reach the same level of closeness as those offline, given enough time.

There are also some practical implications for friendships, as these results show that Facebook is a viable and often-used medium for everyday talk, particularly in long-distance relationships. Long-distance friends can use these findings to improve the quality of their friendships. For example, frequency of face-to-face everyday talk and Facebook everyday talk were both related to relational closeness. However, as long-distance friends do not have access to as much face-to-face communication, they can use Facebook to help build a sense of closeness. Thus, Facebook can serve as a substitute for face-to-face communication, to a certain extent, when opportunities for face-to-face communication are not available. However, when only using online media to start and sustain their relationship, friends must consider that it can take longer to reach the same level of closeness as with offline relationships (Walther and Burgoon, 1992), and it may lead to idealized perceptions of the other person and their relationship (Walther, 1996). This relational closeness is often related to relationship development, as findings from the second research question addressed.

The results of informal talk supported the second research question, as medium and distance interacted to predict informal talk frequency. The results showed that length is inversely associated with face-to-face informal talk, but not with Facebook informal talk. Thus, friends who had a longer relationship did not use as much face-to-face informal talk as those who had not been friends for as long. This is an interesting finding, but one that makes sense when considering relationship development. As relationships develop over time, they typically move from surface-level and shallower topics to deeper topics, through a process of self-disclosure and reciprocity (Altman \& Taylor, 1973). Over time, friends will become closer to one another as they share more intimate details of their lives.

Social penetration theory (Altman \& Taylor, 1973) helps explain this finding, for if participants had been friends for a shorter period of time, they would likely be talking about surface-level topics. Informal talk would fall into this surface-level, shallower category, though it is certainly no less important. However, participants who were friends for a longer period of time did not use as much informal talk, though they were presumably using more of the other types instead. As they had been friends for a longer period of time, talking about deeper topics would be expected. Overall, these findings reveal important contributions to the existing body of research, though there are limitations of this study. This research also points to the need for more study in the area of communication media, geographic distance, relationship length, and relational closeness.

## Limitations and Future Research

Though there were some significant findings in this study, they need to be approached with awareness of the weaknesses that existed. First, the sample was fairly ethnically homogeneous. Though this is not unusual, it limits the generalizability of these results. In addition, the use of cross-sectional rather than longitudinal data proves a limitation. Longitudinal data could afford the opportunity to consider whether any of these findings change over time, as this data was collected during a finite period. This would be especially helpful in further teasing out differences between medium and distance, possibly determining the impact of relational development over time on the use of Facebook communication. Finally, we studied only one member of each dyad, which did not allow for comparison as a dyadic study would. If both members of a friendship dyad were surveyed, scholars could compare perceptions of the amount and type of communication across the dyads to determine possible differences between friends.

There are several directions for future research in this area. First, scholars should consider work on various types of media. This would allow for confirmation of the findings in this study, along with providing new avenues for researching communication across other media. For example, scholars could consider friends' use of texting, Skype, chat rooms, and phones, among other communication media, to determine how friends use these media for everyday talk. This is especially important in understanding the differences between local and long-distance friendships, as results from this study suggest the need to continue teasing out possible differences. In addition, continuing to draw from outside the typical college student sample would also enrich the results, providing further generalizability and understanding of communication across media.

Another important direction for future research is to consider face-to-face reunions and their purpose in friendships. Walther and Burgoon's (1992) work showed that online media, such as Facebook, allows for closeness, though it takes more time than when using face-to-face communication. Even if friends are long-distance, they likely have times of reunion where they see each other again face-to-face, and scholars should consider what impact this has on friendships. As Dainton and Aylor (2001) showed in their work, long-distance partners with occasional face-to-face communication were more likely to be certain of their relationship than those who did not have any face-to-face interaction. More work is needed to determine what other effects, in addition to certainty, these times of reunion and face-to-face communication have for friendships. The purpose, circumstances, and effects of these reunions could help further illuminate how friends use face-to-face and online media in maintaining their relationships.

There was also an underlying assumption in this investigation that participants in this study had times of face-to-face and online communication, as they filled out scales for everyday talk in face-to-face and Facebook contexts. However, there are some relationships that begin and exist solely online. Stafford (2008) identified three types of long-distance relationships that use online communication: those started offline that use online communication, those started online that use online and offline communication, and those started online that use only online communication. Future research should consider differences in these types of long-distance relationships. Using Walther's hyperpersonal perspective as a theoretical framework, scholars could consider how perceptions of self impact communication among these different relationship types. Those whose relationships exist solely online would likely have an idealized version of themselves and their partners, which may lead to relational dissatisfaction if those relational partners meet face-to-face.

Overall, this study provides more information about how friends communicate across media and distance. The results demonstrated a relationship between closeness and the amount and type of everyday talk, and showed how communication medium and geographic distance predict everyday talk after controlling for relational closeness and length. Most importantly, we showed that communication medium is a moderating factor between geographic and relational outcomes. This provides opportunity for scholars to continue looking at friends' frequency and use of communication media across geographic distance, as the differences between local and long-distance friendships continue to be important. Friendships provide valuable resources, including well-being and positive self-esteem (Griffin \& Sparks, 1990), and scholars need to continue studying how these relational outcomes are achieved across distance and through a variety of media.

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## Appendix

Relational Maintenance in Face-to-Face and Facebook Contexts Questionnaire

Do you have a Facebook account?
a. Yes
b. No
(If No is selected, then skip to End of Survey)

## 1. (Demographic Information)

In the following spaces, please circle or write the most appropriate response to each question. If there is a separate set of directions, please read those directions carefully and answer each question to the directions for that section of the questionnaire.

1. What is your age? $\qquad$
2. What is your biological sex?
a. Male
b. Female
3. What is your current classification in school?
a. Freshman
b. Sophomore
c. Junior
d. Senior
e. Graduate Student
f. Other (Please specify) $\qquad$
4. What is your ethnicity or race?
a. White
b. African American
c. Hispanic American
d. Native American
e. Asian American
f. Other (Please specify) $\qquad$
5. How often do you use Facebook?
a. Several times a day
b. Once a day
c. A few times a week
d. Once a week
e. A few times a week
f. Once a month
g. Less than once a month

## 2. (Attitude Scale)

The questions in this scale ask you about your feelings and thoughts during the last month. For each question, choose from the following alternatives:

| Never | Almost never | Sometimes | Fairly often | Very often |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |


| 1. In the last month, how often have you felt that you were unable to control the important things in your life? | 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. In the last month, how often have you felt confident about your ability to handle your personal problems? | 1 | 2 | 3 | 4 | 5 |
| 3. In the last month, how often have you felt that things were going your way? | 1 | 2 | 3 | 4 | 5 |
| 4. In the last month, how often you have felt difficulties were piling up so high that you could not overcome them? | 1 | 2 | 3 | 4 | 5 |

## 3. (Friend Information)

At this time, please open your Facebook account in a separate browser window and note the first person who appears in your News Feed whom you would consider a friend. In other words, this person must not be (a) a romantic partner or (b) a family member. You will complete the rest of the questionnaire with this person in mind.

1. What is the sex of this friend?

1 Male
2 Female
2. About how old is this friend (in years)?
a. less than 18 years old
b. 18-24 years old
c. 25-34 years old
d. $35-44$ years old
e. 45-54 years old
f. 55-64 years old
g. 65-74 years old
h. 75 years old or older
3. How long have you known this friend (in years)? $\qquad$
4. How would you describe your friendship with this person?
a. Acquaintance
b. Casual Friend
c. Close Friend
d. Best Friend
e. Other: $\qquad$
5. Generally, would you say that this person is a local friend, or a long-distance friend? (Circle one.)
a. Local friend
b. Long-distance friend

## 4. (Communication Media)

Please indicate how often you communicate with your friend using each of the media listed below.

| Never | Very <br> Rarely | Rarely | Sometimes | Frequently | Very <br> Frequently |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1 | 2 | 3 | 4 | 5 |


| 1. | Face to face | 0 | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2. $V o i c e ~ t e l e p h o n e ~$ | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. Text messaging |  |  |  |  |  |  |
| 4. E-mail | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. Instant messaging | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. Social networking websites (such as Facebook or Myspace) | 0 | 1 | 2 | 3 | 4 | 5 |
| 7. Blogs/weblogs (such as blogspot.com or livejournal.com) | 0 | 1 | 2 | 3 | 4 | 5 |
| 8. <br> Other forms of online communication (such as discussion <br> boards, online games, etc.) <br> 9. Postal mail 0 | 1 | 2 | 3 | 4 | 5 |  |

## 5. (Communication Frequency)

Please indicate how often you communicate with your friend, using the Facebook features described below.

| Never | Very <br> Rarely | Rarely | Sometimes | Frequently | Very <br> Frequently |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1 | 2 | 3 | 4 | 5 |


| 1. I write on my friend's wall. | 0 | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2. I send my friend a private message. | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. I communicate through Facebook chat. | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. I comment on one of my friend's photographs. | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. I comment on my friend's status message. | 0 | 1 | 2 | 3 | 4 | 5 |

6. I communicate with my friend through an application or game on Facebook.

| 0 | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |

6. (Everyday Talk: Face to Face)

The following items address things that people might talk about in their relationship. With your specific friend in mind, please indicate the extent to which each of the following describes behaviors that you currently use to maintain your friendship when communicating FACE TO FACE.

When FACE TO FACE (indicate 'Never' for all questions if you don't communicate FACE TO FACE)...

| Never | Rarely | Sometimes | Often | Regularly |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |


|  | N | R | S | O | R |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. How often do you talk about current events to pass time and/or to avoid being rude? <br> a. When communicating face-to-face <br> b. When communicating on Facebook | 1 1 | 2 2 | 3 3 | 4 4 | 5 5 |
| 2. How often do you exchange opinions or information about someone else when that person isn't present? <br> a. When communicating face-to-face <br> b. When communicating on Facebook | 1 1 | 2 2 | 3 3 | 4 4 | 5 5 |
| 3. How often do you engage in playful talk to have fun or release tension? <br> a. When communicating face-to-face <br> b. When communicating on Facebook | 1 1 | 2 2 | 3 | 4 <br> 4 | 5 <br> 5 |
| 4. How often do you "catch up" by talking about events that have occurred since you last spoke? <br> a. When communicating face-to-face <br> b. When communicating on Facebook | 1 | 2 2 | 3 3 | 4 <br> 4 | 5 <br> 5 |
| 5. How often do you talk about what's up and about what happened to you during the day? <br> a. When communicating face-to-face <br> b. When communicating on Facebook | 1 1 | 2 2 | 3 3 | 4 <br> 4 | 5 <br> 5 |
| 6. How often do you talk about shared events you experienced together in the past? <br> a. When communicating face-to-face <br> b. When communicating on Facebook |  | 2 2 | 3 3 | 4 <br> 4 | 5 5 |
| 7. When needed, how often do the two of you "make up," where one or both of you apologize for violating some expectations? <br> a. When communicating face-to-face <br> b. When communicating on Facebook | 1 1 | 2 2 | 3 | 4 <br> 4 | 5 5 |
| 8. How often do you talk in ways that express love and give attention and affection? |  |  |  |  |  |


| a. When communicating face-to-face <br> b. When communicating on Facebook | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 9. How often do you talk about the state of your friendship? <br> a. When communicating face-to-face <br> b. When communicating on Facebook | 1 | 2 | 3 | 4 | 5 |
| 10. How often do you disagree? <br> a. When communicating face-to-face <br> b. When communicating on Facebook | 1 | 2 | 3 | 4 | 5 |
| 11. How often do you have serious conversations where you are both <br> involved in an in-depth conversation about some personal or important <br> topic? <br> a. When communicating face-to-face <br> b. When communicating on Facebook |  | 1 | 2 | 3 | 4 |


| 20. How often do you ask each other for a favor? |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | 1 | 2 | 3 | 4 | 5 |
| 21. How often do you engage in conversation in which the topic is limited to <br> talking about news and current events? |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 |
| 22. How often do you have the kind of small talk where you want to be <br> friendly and get better acquainted with the other person? |  |  |  |  |  |

## 7. (Everyday Talk: Facebook)

The following items address things that people might talk about in their relationships. With your specific friend in mind, please indicate the extent to which each of the following describes behaviors that you currently use to maintain your friendship when communicating ON FACEBOOK.

When using FACEBOOK (indicate 'Never' for all questions if you don't communicate using FACEBOOK)...

| Never | Rarely | Sometimes | Often | Regularly |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |


|  | N | R | S | O | R |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 25. How often do you talk about current events to pass time and/or to avoid being rude? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 1 | 2 2 | 3 <br> 3 | 4 <br> 4 | 5 5 |
| 26. How often do you exchange opinions or information about someone else when that person isn't present? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 1 | 2 2 | 3 3 | 4 <br> 4 | 5 5 |
| 27. How often do you engage in playful talk to have fun or release tension? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | $\begin{aligned} & 1 \\ & 1 \\ & \hline \end{aligned}$ | 2 2 | 3 3 | 4 4 | 5 |
| 28. How often do you "catch up" by talking about events that have occurred since you last spoke? |  |  |  |  |  |


| b. When communicating face-to-face <br> c. When communicating on Facebook | 1 1 | 2 2 | 3 3 | 4 4 | 5 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 29. How often do you talk about what's up and about what happened to you during the day? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 | 2 2 | 3 | 4 4 | 5 |
| 30. How often do you talk about shared events you experienced together in the past? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 | 2 2 | 3 | 4 4 | 5 5 |
| 31. When needed, how often do the two of you "make up," where one or both of you apologize for violating some expectations? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 | 2 2 | 3 3 3 | 4 4 | 5 5 |
| 32. How often do you talk in ways that express love and give attention and affection? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 | 2 2 | 3 3 | 4 4 | 5 5 |
| 33. How often do you talk about the state of your friendship? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 1 | 2 2 | 3 3 | 4 4 | 5 <br> 5 |
| 34. How often do you disagree? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 | 2 2 | 3 3 | 4 4 | 5 5 |
| 35. How often do you have serious conversations where you are both involved in an in-depth conversation about some personal or important topic? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 | 2 | 3 3 | 4 | 5 5 |
| 36. How often do you have conversations in which one of you shares about some problem you are having and the other person tries to help? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 | 2 2 | 3 | 4 <br> 4 | 5 5 |
| 37. How often do you complain to each other, where one of you expresses negative feelings or frustrations directed toward a topic, but not toward each other? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 | 2 | 3 3 | 4 | 5 5 |
| 38. How often do you have conversations where one of you has the goal of convincing the other person to do something? <br> b. When communicating face-to-face <br> c. When communicating on Facebook | 1 1 | 2 2 | 3 3 | 4 4 | 5 5 |
| 39. How often do you have conversations where the two of you are making a decision about some task? <br> b. When communicating face-to-face | 1 | 2 | 3 | 4 | 5 |


| c. When communicating on Facebook | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 40. How often do you have conversations in which one of you is giving the <br> other information or direction about how to do some task? <br> b. When communicating face-to-face <br> c. When communicating on Facebook |  |  |  |  |  |
| 41. How often do you have one-way conversations, where one of you is <br> telling the other how to act or what to do? <br> b. When communicating face-to-face <br> c. When communicating on Facebook |  |  |  |  |  |

## 8. (Equity)

## Please answer the following questions:

1. Considering how much you and your friend put into your friendship, and how much you and your friend get out of it:

| I am getting a much <br> better deal than my |  |  |  |  |  | My friend is getting a <br> much better deal. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| friend. |  |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

2. Consider all the times when your friendship has become unbalanced and one partner has contributed more for a time. When this happens, who is more likely to contribute more?

| My friend is much more <br> likely to be the one to <br> contribute more. |  |  |  |  |  | I am much more likely <br> to be the one to <br> contribute more. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

## 9. Certainty/Involvement Scale (??)

Directions: We would like you to rate how certain you are about the degree of involvement that you have in your relationship at this time. Please note, we are not asking you to rate how much involvement there is in your relationship, but rather how certain you are about whatever degree of involvement you perceive. It might help if you first consider how much of each form of involvement is present in your relationship, and then evaluate how certain you are about that perception. Please indicate your responses using the scale below.

| Completely <br> or almost <br> completely <br> uncertain | Mostly <br> uncertain | Slightly more <br> uncertain <br> than certain | Slightly more <br> certain than <br> uncertain | Mostly <br> certain | Completely <br> or almost <br> completely <br> certain |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 |

How certain are you about...

| 1. What you can or cannot say to each other in this friendship? | 1 | 2 | 3 | 4 | 5 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2. The boundaries for appropriate and/or inappropriate behavior in <br> this friendship? | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. The norms for this friendship? | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. How you can or cannot behave around your friend? | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. Whether or not you and your friend feel the same way about each <br> other? | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. How you and your friend view this friendship? | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. Whether or not your friend likes you as much as you like him or <br> her? | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. The current status of this friendship? | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. The definition of this friendship? | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. How you and your friend would describe this friendship? | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. The state of the friendship at this time? | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. Whether or not this is a close or casual friendship? | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. Whether or not you and your friend will remain friends? | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. The future of the friendship? | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. Whether or not this friendship will end soon? | 1 | 2 | 3 | 4 | 5 | 6 |

## 16. Where this friendship is going?

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

10. Inclusion of the Other in the Self

Please choose the picture below which best describes your relationship. In the diagrams below, you are "self" and the other person is "other."


Choose one of the following options.
a. 1
b. 2
c. 3
d. 4
e. 5
f. 6
g. 7

Now, please think about how your friend would answer this question. Which diagram do you think she or he would choose?


Choose one of the following options.
a. 1
b. 2
c. 3
d. 4
e. 5
f. 6
g. 7

## 11. (Closeness)

Please indicate the degree to which you agree with the following statements regarding your friendship using the scale below.

| Not at all |  |  |  |  |  | Very <br> much |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |


| 1. How close are you to your friend? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2. How often do you talk about personal things with your <br> friend? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. How satisfied are you with your relationship with your <br> friend? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. How important is your relationship with your friend? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. How much do you like your friend? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. How important is your friend's opinion to you? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. How much do you enjoy spending time with your friend? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

