Smart Phones and Mediated Relationships: The Changing Face of Relational Communication

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Smart Phones and Mediated Relationships: The Changing Face of Relational Communication
Loyd S. Pettegrew & Carolyn Day

Studies of the impact of computer-mediated forms of communication (CMC) on interpersonal relationships have focused primarily on observing, chronicling, or analyzing how today's digital age has changed face-to-face (FtF) forms of interrelating. This exploratory study provides an initial empirical base for communication scholars to reconsider their reliance on the treatment of computer mediated communication and mobile technology (MT) as an addendum to FtF communication, and instead to recognize that individuals use mobile communication to develop close relationships across a wide variety of interrelated and converging contexts. Survey data collected from 526 undergraduate students at a large public university in the Southeast demonstrate that many individuals heavily rely on mobile forms of MT technology and its applications to facilitate continuous, yet mediated contact with others. This is true for both close relationships and intimate relationships. We call for researchers to consider the transformational implications of this new communication phenomenon, how it transforms interpersonal and relational development and specific research agendas that should be undertaken. The communication has quickly grown more complex and messier.

Keywords: Communication & Technology; Interpersonal Communication; Mediatization; Relationship Development; Mobile Communication

“I see people who are just absorbed with their smartphones, and I sometimes think, there is a life being lived, an online life, which is quite different than what's going on around them.”
Michael Palin, Wall Street Journal, August 31, 2013.1
Introduction

The face-to-face (FtF) interaction that animated received interpersonal communication theories of the past, seem barely relevant to the under 35 cohort of today. Students on campus no longer favor relating FtF in dyads or groups. They now interact in a digital world all their own, often seemingly many miles away from those with whom they relate. Among teens and young adults this virtual world is how relationships develop and are sustained. A new communication *mise en place* has arrived and the phenomenon had grown more complex and messier.

Barely 15 years ago, two scholars presaged what has now become a new reality of human communication and relationship development. In 1999 Everett Rogers described the communication field as containing two almost distinct sub-disciplines, interpersonal and mass communication. Rogers argued that, “Most of the theories in communication study are assigned to either mass communication or interpersonal communication, even when the theory would seemingly apply to both sub disciplines or perhaps should.” He called for *intermedia* research and theory that would end the field’s dichotomy. In the same year, Craig advanced the idea that interaction “may occur face-to-face or through technological media and may flow from one to one, one to many, or many to many, but in all formats it involves (contrary to the phenomenological view) interposed elements that mediate between individuals.” More than a decade later, Coorenre affirmed this communicatively constitutive ontology in 2012, remarking that our capacity to influence others to say or do things *while* we speak, write, or, more generally conduct ourselves publicly has fundamentally changed; a plethora of agencies now operate in any given conversation. Indeed, Turkle argues that being with someone physically may now have less importance than being with someone cellulary, and that being “elsewhere” even in the presence of others may now be a social marker of self-importance. In other words, young people are as invested in the ventriloquial self, emerging from their media-dominated interactions, as older adults are invested in their FtF interactive selves.

Accordingly, Baym warns that simply pursuing the next communication innovation is futile since technology will remain several steps ahead of published scholarly research. We must explore the ways individuals use multiple forms of integrative media in their communicative lives that alter the communication process first defined by David K. Berlo in 1960. This paper attempts to add some modest empirical weight to the call to examine how mobile devices (MD) and emerging mobile technologies (MT) may be fundamentally changing the very nature of the interpersonal communication process and outdating many of our theories. This includes the convergence of digital technology across multiple social contexts and their role in relational development among college students. In so doing, we hope to shift the focus of interpersonal and relational scholars to how MT is changing the relevant concepts and variables about how people interrelate.

In the first section, we briefly present literatures from various disciplines and contexts that address the intersection of MT and interpersonal forms of
communication. The section narrows this focus to the small number of scholars outside of the communication discipline who are recognizing more broadly, fundamental changes in how humans engage one another relationally. Scholars are finding that college age students represent a large portion of the early adopters of smartphones\textsuperscript{10} and mobile forms of communication that have become an intrinsic part of most young people’s lives.\textsuperscript{11} Consequently, in the third section we offer modest empirical evidence suggesting that many young people actually eschew face-to-face (FtF) communication in favor of MT across multiple contexts, thereby bolstering our argument that current research in the communication discipline needs to better reflect this growing mediated, convergent reality. We conclude with recommendations for the field to embrace the new sense of communication context, the limits of existing communication constructs to MT, and the need for an enlightened view of how the communication process now operates.

**Brief Review of Literature**

For more than two decades, CMC has been a topic of interest. Walther referred to it as “synchronous or asynchronous electronic mail and computer conferencing, by which senders encode text messages that are relayed from senders’ computers to receivers.”\textsuperscript{12} Much has changed and the communication landscape has widened appreciably.

**Mediatization**

Jansson\textsuperscript{13} terms the increasing social prevalence of media dependence as mediatization,\textsuperscript{2} a term first used by Ernst Manheim in the 1930s, and more recently by Boorstin\textsuperscript{14} and Schultz.\textsuperscript{15} For Jansson,\textsuperscript{16} mediatization refers to a responsive sociospatial transformation that not only impacts our communication, but reflects “how other social processes in a broad variety of domains and at different levels become *inseparable from and dependent on* technological processes and resources of mediation” (authors’ emphasis). Jansson offers two major implications of mediatization for communication scholars: (1) new media such as smartphones give people accentuated opportunities to strengthen personal relationships via more efficient relational coordination; (2) these new media become more closely integrated into daily patterns of human communication and create even greater dependencies such as expectations of information disclosure.\textsuperscript{17}

Many scholars currently focus on research agendas that pursue intervening variables of CMC on interpersonal relationships. For instance, Gooch and Watts

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\textsuperscript{1}The CMC phenomenon has also been referred to by other names including information and communication technology (ICT) (see Haythornwaite and Kendall; Johnson) and advanced communication and information technologies (ACIT) (see Waldeck, Seibold, and Flanagin). In this paper we use the term mobile technology (MT) to represent the smart phone phenomenon and the increasing development and use of mobile devices like Apple’s smart watches and Google glasses.
found that communication technologies can be utilized to strengthen an individual’s fondness for their absent partner.\textsuperscript{18} Spottswood, Walther, Holstrom and Ellison examined gender differences in attributed person-centeredness, which had largely been confided to FtF interaction in attributions of CMC.\textsuperscript{19} DeAndrea and Walther\textsuperscript{20} and later DeAndrea\textsuperscript{21} examined how students make sense out of and attributions about self-portrayals in Facebook and concluded that the co-creation of social media identities provide useful social evaluation data. Other scholars have found that CMC impacts attachment styles\textsuperscript{22} and communication apprehension.\textsuperscript{23} Studies have also explored the effects of virtual environments on interpersonal perceptions and behaviors,\textsuperscript{24} an individual’s level of communication competence,\textsuperscript{25} overall well-being\textsuperscript{26} or marital relationship quality.\textsuperscript{27} Given the acceleration of technological advances and introduction of social media products that facilitate largely unconventional or previously unseen forms of integrated communication (seen in the rapid developments in today’s social media forums such as Snapchat or Instagram), Jansson\textsuperscript{28} urges further study of digital technology and how it integrates within the realm of interpersonal relationship development.

One of the more provocative studies on CMC was completed in the organizational context.\textsuperscript{29} It examined the impact of advanced communication and information technologies (ACITs) on organizational assimilation across four different organizations. The authors found that FtF interaction is highly predictive of effective organizational assimilation, yet that “contemporary media also appear to be quite important to efforts to assimilate.”\textsuperscript{30} Their finding supports arguments that new media and advanced technologies have become important tools for communicating and reflect the trend of their growing value and adoption, particularly among individuals in the workplace.

We see a limited focus of CMC research studies in the communication discipline. Tannen offers compelling evidence in an edited volume on discourse analysis that our everyday language is used, and shaped by the Web 2.0 phenomenon, thus offering unique forms of “meta messages” and “pervasive indirectness” that have no discursive contextualization.\textsuperscript{31} Yet this awareness of the spacial ambiguity of conversations and intimate forms of dialogue remains firmly a focus of the Discourse Analysis sub-discipline. DiDominico and Boase also warn that MT use may create situations where participants must simultaneously manage their relations across multiple distinct speech events (FtF and texting).\textsuperscript{32} They fail, however, to address the primacy of one medium over the other, or their concomitant effect on the participants, (i.e., which one takes precedence over the other). The authors conclude with a substantial equivocation: “…the concept of primary and secondary involvement is relevant to understanding the dynamic switching and blurring that takes place when mobile texting occurs during co-present interaction.”\textsuperscript{33} Such findings help us view more broadly how participants in interpersonal relationships can use multimodal forms of communication (Baym\textsuperscript{34}) to promote their overall well-being or

\textsuperscript{2}For an excellent overview of mediatization see Couldry and Hepp.
closeness. This body of research has yet to shed sufficient light on the subject, offering only that this issue is important to the field.

A few researchers have begun to recognize that young people use social media networking sites and MT for strategic purposes, including making the decision to “friend” their parents on Facebook or not, protect their online privacy, or to use the platform as a way to explore their identities. Studies also show that cell phones profoundly impact family communication and mediate a feeling of closeness for family members while physically separated. For instance, Cooper found that cell phones paradoxically give teenagers a psychological form of independence while parents can use such devices as a form of spying and control. In China, MT has been found to reinvigorate intergenerational forms of family communication.

Researchers have thus broadly offered that MT is reshaping intimate and family forms of communication, our workplace relationships, and our everyday forms of talk, reflecting the increasing demands of blurred boundaries generated via new technologies. Such advances in the digital age form a collective dimension of interpersonal communication that fully centers technology in our everyday experiences. Despite some recognition by scholars that individuals engage in a multitude of media types when developing close relationships, and can strategically switch between such modalities in particular contexts such as online dating, the topic of how these modalities converge or serve to mediate the individual has not yet been dealt with explicitly by the vast majority of scholars.

The MT Cracks in the Received View of Communication

A small but growing number of scholars outside of the communication discipline provide ground-breaking macro-level treatments of how our ways of interrelating have fundamentally changed, perhaps forever. For these scholars, the study of MT and interpersonal relationships is not limited to its intersection with different micro-level variables such as assimilation or communication competence. Anthropologist Ruth Finnegan argues that we creatively interconnect across space and time not just through words or by digital means, but also by a multisensory modality that embodies touch, sight, and material objects. She notes that communication scholars place an emphasis on the prioritization of a rational and referential perspective to communication. Clinical psychologists Catherine Steiner-Adair and Theresa Barker demonstrate how our interpersonal forms of communication are mediated—how families interact on an interpersonal level has been irrevocably changed due to the far-reaching impact of technology in the most intimate recesses of our daily lives. Steiner-Adair and Barker report that conversations that used to take place around the family dinner table have been replaced by disparate conversations via electronic devices. The new dynamics of family life may embrace a lowered level of creativity, fewer play dates with other children, and a higher emotional cost that stems from the pervasive demands of such technologies and their connectedness.

Steiner-Adair and Barker’s argument that technology has altered irreparably our urges for human intimacy is mirrored by experts outside the communication field.
Rich Ling argues that mobile phones strengthen our social ties often at the expense of those who are physically present.\textsuperscript{48} Psychologist Sherry Turkle describes the erosions of boundaries between the real and the virtual for “digital natives”—those who have grown up with cell phones and toys that ask for love.\textsuperscript{49} Implicit in both works is the notion that the more we seek to interrelate via mediated means of technology, the more we destabilize our ideas of privacy and community, and undervalue emotional intimacy. Turkle elaborates, “When you can think about what you’re going to say, you can talk [relate] to someone you’d have trouble talking to. And it doesn’t seem weird that you pause for 2 minutes to think about what you’re going to say before you say it, like it would be if you were actually talking to someone.”\textsuperscript{50} She continues, “Not only do people say that a phone call asks too much, they worry that it will be received as demanding too much.”\textsuperscript{51} Her research builds on the earlier discovery by Haythornthwaite and Kendall\textsuperscript{52} and Haythornthwaite\textsuperscript{53} that there is a correlation between relational maintenance, ideas about community, and the number of modes that individuals use to communicate with each other.

A compelling argument toward understanding this reconceptualization of the convergence of interpersonal communication with the digital age at a macro level was also represented by de Zengotita, arguing that people want to avoid FtF engagement and that digital devices can save them this time and effort.\textsuperscript{54} He further speculates that to the extent humans are mediated, their personalities become an adaptable tool kit of social posturing, removed from relational genuineness, and that immersion in numbing, mediated routines that although mediated, “allow many of us to feel relatively real.”\textsuperscript{55} de Zengotita predicts that people who are addicted to constantly using their mobile device connectedness will suffer the feeling of no longer being alive and in turn generate more self-conscious and autonomous selves\textsuperscript{56} as such devices help to transform human attention into “unreal” time.\textsuperscript{57}

The notion that digital technologies are facilitating a convergence with the very idea of communication was also recognized by Media scholar Klaus Bruhn Jensen. Jensen argues that we need to move beyond the “untenable divides of mass versus interpersonal communication, and of online versus offline interaction” to recognize that such typologies prevent us from seeing that our communication practices extend across media in three different ways: the human body, mass forms of communication, and the ability of digital technologies to facilitate various forms of networked interactions (i.e., one-to-one, one-to-many, many-to-many).\textsuperscript{58} This literature supports the aims of our study to document the reliance on and ways MT enables relationship development among a sample of college students.

Research Methods

Because of this study’s exploratory nature, large sample survey research methodology was used and research questions rather than hypotheses were formulated.\textsuperscript{59}
**Research Questions**

Six research questions are advanced: (1) To what extent have mobile devices altered the way college students conduct interpersonal communication with friends?; (2) What is the amount of time college students spend on their mobile devices doing various activities in a given day?; (3) In what ways do mobile devices help and interfere with developing close relationships?; (4) What is the longest amount of time in the last month college students have been without their mobile devices?; (5) How would close friends rate students’ personal dependency on their mobile devices?; (6) In what ways is a mobile device better than FtF with a romantic partner?

**Questionnaire**

A 31-item questionnaire was constructed using interval, categorical and nominal questions about the use of mobile devices as part of a larger study of mobile device usage in relational and educational contexts. Seventeen items about the impact of mobile devices on interpersonal relationship development were used for this specific study. A copy of the questionnaire may be obtained from the first author. The questionnaire was pilot-tested on two communication classes (N = 47) and revised to ensure comprehension and clarity. Since this study was exploratory, the majority of the questions were open-ended or categorical, traditional means of assessing reliability (Cronbach’s alpha, test-retest or structural) were unable to be assessed.

**Sample**

A representative sample of 526 communication and mass communications majors from a large state university in the Southeast were selected for inclusion in this study. The population was 1,203 students and the sample was drawn from a representative random selection of 2,000-level through 4,000-level classes. We chose communication students; this would bias our results against reliance on MT forms of communication. We reasoned that these students would be sensitized to the importance and value of FtF over mobile device communication and results would be purposively conservative. The sampling frame provides a sampling error rate of +3% at a 95% confidence interval, meaning that the results would vary by no more than 3% in either direction if every communication/mass communication major had been included.

**Data Collection Methods**

The questionnaire was a pencil-and-paper instrument. Classes from the undergraduate course offerings in the departments of communication and mass communication were randomly selected for targeting. These courses included the basic courses, mid-level courses and advanced courses only available to seniors. The researchers asked the teachers of these courses if they could visit the class and ask for voluntary participation in the study (we received 100% compliance from both departments).
Students were then apprised by the researcher of the general intent of the study and told that their participation was strictly voluntary and their responses would be anonymous. If they chose to not to participate they would simply not complete the survey, but hand it in when the surveys were collected. All 526 questionnaires were coded onto an Excel spread sheet. The interval and categorical data were analyzed using SPSS22. The qualitative answers to each question were recorded verbatim and given to a trained senior research assistant, who sorted these responses into broad category types. The researcher then examined these category types for conceptual similarity, occasionally combining content categories. The vast majority of responses (96%) across all verbatim questions were able to be placed into discrete categories. In some cases responses were too idiosyncratic to categorize and were placed in a “idiosyncratic-uncodable” category. The senior author of this paper then independently repeated the same analysis, using the content categories, including the “idiosyncratic, uncodable” category and coded each verbatim response. The two independent sets of coding were compared to test inter-rater reliability using the method outlined by Krippendorf, employing the less bias-prone kappa statistic of Siegel. Siegel’s kappa was .87, indicating acceptable inter-rater reliability. This study and research procedures were approved by the university’s Institutional Review Board (#00010411).

**Research Results**

RQ1: The extent to which mobile devices alter the way students conduct interpersonal communication. More than three-in-four communication students believe that mobile devices have greatly (50%) or moderately (29%) altered the way they conduct interpersonal communication with friends. Fifteen percent believe it altered the way they communicate with friends a little and 7% said it did not alter communication with friends at all. Clearly, college students recognize the impact of mobile devices on their communication with friends. Results may not add up to 100% because of rounding error.

We followed up this question by asking in what ways mobile devices have altered the way students engage in interpersonal communication with friends. Table 1 presents the qualitative results of this follow-up question. The fact that mobile device communication is easier/more efficient/faster and allows the use of multi-media and apps account for the majority of ways mobile devices have altered the ways our sample of college students engage their friends. For example one respondent stated: “Instead of calling now, we only text.” Of special note is the discovery that students understand the compromise mobile device communication requires; more than one-in-ten students say that mobile devices get in the way of their FtF communication. One respondent elaborated, “I do not speak face to face or even speak sometimes. When you are face to face with someone you are not necessarily in the moment with them due to checking your phone.” Yet despite this, 6% admit that mobile devices are the only way they communicate with friends.
RQ2: The amount of time students spent on their mobile devices doing various activities in a given day. Texting friends, surfing the Internet, listening to music and using apps are the most frequent activities students engage in when using their mobile devices. The data from this line of questioning is presented in Table 2. Fifty-four percent of our sample spends less than 1 hour emailing while 5% spends 7 hours or more on email. Fifty percent spends less than 1 hour per day talking to friends/family and 6% spends 7 hours or more doing so. Forty-nine percent spends less than 1 hour developing close relationships while 6% spends 7 hours or more on this activity. Twenty-seven percent spends less than an hour per day texting friends while 19% spends 7 hours or more doing so. Finally, 49% spends less than an hour per day surfing the Internet while 9% spends 7 hours or more doing so. Such responses in this category indicated that for some individuals, mobile forms of technology were used heavily, enabling them to be in continuous, yet mediated contact with others or for information-seeking tasks.

RQ3: Ways in which mobile devices help and interfere with developing close relationships. Table 3 presents the qualitative results of the follow-up question:

### Table 1  Ways Mobile Devices have Altered Ways you Engage Friends

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allows you to text message</td>
<td>19%</td>
</tr>
<tr>
<td>Easier/more efficient/faster</td>
<td>17%</td>
</tr>
<tr>
<td>Always in touch 24/7</td>
<td>13%</td>
</tr>
<tr>
<td>Gets in the way of FtF</td>
<td>13%</td>
</tr>
<tr>
<td>Allows the use of multi-media/apps</td>
<td>11%</td>
</tr>
<tr>
<td>It’s all I use</td>
<td>6%</td>
</tr>
<tr>
<td>Facilitates FtF meetings</td>
<td>5%</td>
</tr>
<tr>
<td>Helps overcome distance</td>
<td>5%</td>
</tr>
<tr>
<td>Easier to express difficult issues</td>
<td>3%</td>
</tr>
<tr>
<td>Less awkward communication instances</td>
<td>1%</td>
</tr>
<tr>
<td>Can’t show your feelings</td>
<td>1%</td>
</tr>
</tbody>
</table>

### Table 2  Amount of Time per Day Spent on Various Mobile Device Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>0–1 hr</th>
<th>2–3 hrs</th>
<th>4–6 hrs</th>
<th>7–10 hrs</th>
<th>&gt;10 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talking to your friends/family</td>
<td>50%</td>
<td>31%</td>
<td>13%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Texting your friends</td>
<td>27%</td>
<td>32%</td>
<td>23%</td>
<td>13%</td>
<td>6%</td>
</tr>
<tr>
<td>Surfing the Internet</td>
<td>29%</td>
<td>36%</td>
<td>26%</td>
<td>8%</td>
<td>1%</td>
</tr>
<tr>
<td>Developing close relationships</td>
<td>49%</td>
<td>29%</td>
<td>16%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Using Skype/video chatting.</td>
<td>85%</td>
<td>11%</td>
<td>3%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Email</td>
<td>54%</td>
<td>29%</td>
<td>12%</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>
“What are the two most important ways a mobile device helps you in developing close relationships with another person?” More than one-in-four students believe keeping in touch and having immediate feedback help them develop close relationships, and 17% like the ease and speed of mobile devices. More than one-in-ten feel lack of FtF talk promotes greater personal comfort/honesty/lack of awkwardness, use multiple media/apps (Facebook, Twitter, Snapchat, etc.) to share their more personal side, and that the ability to both talk and text is an asset to developing close relationships. For instance one respondent indicated, “Sometimes face-to-face can be awkward. [An] instant text shows you care about them, thinking of them at the moment.”

Table 4 presents the qualitative results of the follow-up question: “What are the two most important ways a mobile device hinders you in developing close relationships with another person?”

**Table 3** Ways Mobile Devices Help you Develop Close Relationships

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to keep in constant touch and get immediate feedback</td>
<td>26%</td>
</tr>
<tr>
<td>It’s faster/easier communication</td>
<td>17%</td>
</tr>
<tr>
<td>Lack of FtF promotes more comfort/honesty/lack of awkwardness</td>
<td>13%</td>
</tr>
<tr>
<td>Able to use multimedia/apps to share my more personal side</td>
<td>12%</td>
</tr>
<tr>
<td>Ability to both talk and text</td>
<td>11%</td>
</tr>
<tr>
<td>Helps overcome distance/travel limitations</td>
<td>10%</td>
</tr>
<tr>
<td>Easy to access when needed</td>
<td>5%</td>
</tr>
<tr>
<td>Texting gives you time to consider your response</td>
<td>2%</td>
</tr>
<tr>
<td>Allows me to be with them spiritually</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Table 4** Ways Mobile Devices Hinder you Developing Close Relationship

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>The more you rely on mobile the less you rely on FtF</td>
<td>19%</td>
</tr>
<tr>
<td>Less personal intimacy/removes need for physical contact</td>
<td>15%</td>
</tr>
<tr>
<td>It distracts your FtF</td>
<td>14%</td>
</tr>
<tr>
<td>It is easy to misinterpret communication</td>
<td>7%</td>
</tr>
<tr>
<td>You don’t have visual/social cues to help you</td>
<td>6%</td>
</tr>
<tr>
<td>No privacy/constantly connected/can’t get off my phone</td>
<td>6%</td>
</tr>
<tr>
<td>Imprecise/shorter/lower quality communication</td>
<td>5%</td>
</tr>
<tr>
<td>Doesn’t permit emotion</td>
<td>4%</td>
</tr>
<tr>
<td>Makes me lazy with less people skills</td>
<td>4%</td>
</tr>
<tr>
<td>Lets you text when you should speak</td>
<td>3%</td>
</tr>
<tr>
<td>Easy to be rude/ignore others</td>
<td>3%</td>
</tr>
<tr>
<td>Causes interpersonal drama/games</td>
<td>2%</td>
</tr>
<tr>
<td>Creates disingenuousness/pseudo-closeness</td>
<td>2%</td>
</tr>
<tr>
<td>Creates a Facebook addiction</td>
<td>1%</td>
</tr>
<tr>
<td>It doesn’t</td>
<td>1%</td>
</tr>
<tr>
<td>Helps me deal with awkward/conflicting situations better</td>
<td>1%</td>
</tr>
<tr>
<td>Allows you to hide behind a screen/voyeur</td>
<td>1%</td>
</tr>
</tbody>
</table>
As in Table 1, students recognize that MT is a two-edged relationship development sword. Nearly one-in-five believe the more one relies on CMC, the less they rely on FtF communication and 15% say communication is less intimate, removing the need for physical contact. Fourteen percent understand it is a distraction from FtF interaction, 7% recognize it is easy to misinterpret, and 6% each say there is no visual cue assistance and there is little privacy being connected 24/7. For example one respondent wrote “I may base a judgment of a person off of texting which is not always reliable. It discourages face-to-face contact, which I prefer.”

RQ4: The longest amount of time in the last month students have been without a mobile device. The results suggest that mobile devices are an ever-present part of communication students’ interpersonal persona. Eleven percent said that in the last month they had never been without their mobile device, nearly one-in-three (32%) said they were without their mobile device only 1–3 hours, 22% said 4–8 hours, 12% said 9–12 hours and 12% said 24 hours. Only 11% said they had been without their mobile device longer than one day.

RQ5: Personal dependency on a mobile device. We asked communication students the extent to which their best friends would say they were addicted to their mobile device. The question gave them a 4-point Likert scale (A great deal, A moderate amount, A little, Not at all). No middle or neutral point was used in this scale. Twenty-nine percent said “Not at all,” more than one-in-three (36%) said “A little,” 24% said “A moderate amount” and 11% said “A great deal.” In other words, more than two-in-three students admitted that their best friends would attribute some level of addiction to their mobile device. Because of the aforementioned social desirability bias built into this study, it may be likely the bond between our students and their mobile devices is even more dramatic and pervasive.

RQ6: In what ways is your mobile device better with a romantic partner than FtF? In this question we specified the use of a mobile device with a romantic partner as opposed to close relationships. When communication with a romantic partner is specified, the enthusiasm and use of a mobile device wanes slightly. Twenty-seven percent of communication students said that mobile devices are not better than FtF

<table>
<thead>
<tr>
<th>Table 5 Ways Mobile Devices Are Better than FtF with Romantic Partners^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s not better</td>
</tr>
<tr>
<td>You can always communicate when you are apart</td>
</tr>
<tr>
<td>You can be less nervous/more confident</td>
</tr>
<tr>
<td>You can communicate quickly/easily</td>
</tr>
<tr>
<td>You can be more risqué privately (sexting)</td>
</tr>
<tr>
<td>When you need some space it’s easy to get away</td>
</tr>
<tr>
<td>You can avoid FtF conflicts</td>
</tr>
<tr>
<td>Allows privacy when in public</td>
</tr>
<tr>
<td>I’m able to share pictures</td>
</tr>
<tr>
<td>You can do what you want without them seeing</td>
</tr>
<tr>
<td>Gives you a permanent record of your conversation</td>
</tr>
<tr>
<td>I don’t have a romantic partner</td>
</tr>
</tbody>
</table>

^a96% of these verbatim responses were able to be coded into distinct categories
with a romantic partner. For 23% it allowed them to communicate when they were apart; 13% each said mobile devices allowed them to be less nervous/more confident with a romantic partner, and that it allowed them to communicate more quickly/easily. One respondent wrote, “[I] can avoid embarrassing moments. Hide nervousness. Exude more confidence.” A much smaller number cited private communication when in public (3%), avoiding FtF conflicts (3%), and sharing pictures (2%). Here a respondent stated, “I could always choose not to respond so she has no opportunity to nag at me.”

Conclusions and Recommendations

This modest data-set strongly suggests that a dramatic change is underway in our relational communication practices, especially among younger adults. While CMC and its impact on interpersonal relationships have largely been the focus of those specializing in media and technology, our study suggests that we can no longer rely on the bifurcated theories and methods from FtF interpersonal communication. The whole phenomenon of relationship development is becoming, perhaps has become, convergent across multiple platforms. Many of the positions posited by Katz (“mobile media”62 and “mainstreamed mobiles”63), Rice and Fuller64 as well as Ling65 and Turkle,66 have been borne out in this empirical study of college communication majors, suggesting that relational communication is highly mediated and multi-contextual; oftentimes MT helps people converge these complexities. Using our preliminary data we elaborate on this below.

First, our data suggest that MT is replacing or at least competing with FtF communication in many instances, both in reliance and popularity, generating a new “mediated” context of communication. Some students report using MT predominantly and persistently, despite recognizing its addictive tendencies and the constant connectedness it creates, even to the point of overload. They also realize its emotional limitations, and that it can be disingenuous and open to misinterpretation. Importantly, they recognize that MT often replaces talking or FtF communication. A small portion of students report having no problems with the way MT has altered their interpersonal communication. Such findings affirm existing studies showing that today’s advancements in technologies, particularly mobile ones, greatly impact interpersonal relationships for young adults.67 The Pew Research Center calls the Millennial generation “digital natives”—the only generation for which new technologies are not something they’ve had to adapt to.68 Pew’s research suggests today’s youth remain the most avid users of current digital social media advances like Facebook, Snapchat, Twitter, WhatsApp, Kik and Instagram in constructing personalized friend networks and other relationship-enhancing media and their desire to be different.

The long-term relational and mental health implications of individuals being “constantly connected” via MT have yet to be researched in depth.69 More detailed studies are needed to explore the impact of MT on how individuals manage their social relations within their communities as mediated subjects more generally. Given our data, we speculate that MT has multiple, overlapping consequences on
interpersonal relationships, including a demand that mobile phone users multitask and manage a multiplicity of contesting contexts and social/emotional situations.

Second, the increasing persistence of and preference for utilizing MT versus FtF revealed in our study confirms Katz’s trepidations that mobile media are having a profound effect on the nature of our public space and everyday social rituals, essentially making salient the limits of many communication theories.70 Student communication preferences suggest that speech or FtF communication may be taking a subordinate role to texting as a preferred form of interaction. Students cite the advantage of little or no apprehension or anxiety with texting.

Approximately one half of the students in our study indicate they spend more than one hour talking, developing close relationships and emailing others, while two-thirds of them reported that they spend more than an hour texting and using the Internet (including social media) to do so. Indeed, 44% talk, 55% text, 62% surf the internet, and 55% develop close relationships between 2 and 6 hours per day. This urge to be in constant contact, tethered to their devices, endorses Turkle’s prediction that we “do not want to be disturbed by conventional sociality with physically proximate individuals.” Mobile technologies and social platforms such as Facebook enable us to link more “tightly” to our interpersonal connections and networks while, paradoxically, also allowing us to “wander further from them physically.”72 Turkle’s claim that “priority” is often given to online others rather than the people we are with physically is becoming more evident.73

We found that the majority of our respondents multitask—exploring the Internet or listening to music while also texting as a stable form of social contact. This suggests that young adults are increasingly blurring the line between symbolic and material spaces rather than being mentally and physically present with the other. As Jansson argues, the settings of media use, including its production and consumption, are becoming increasingly fluid and convergent.74 Empirical studies about how MT may siphon our attention into “unreal time”75 and possibly alter our dependency on and preference for FtF contact are needed. This approach may help us to further understand how we communicate and reinforce our social presence across a variety of converging social-spatial and physical contexts rather than the bifurcated, singular contexts (i.e., educational, familial, intimate, etc.) represented in our literature.

Third, MT is fundamentally changing our understandings of time and place in the development of close relationships, calling for a more enlightened view of today’s communication processes and how they operate. Our respondents made references to manipulating the temporal context in the realm of conflict avoidance when using mobile forms of communication and using the asynchronous capabilities of MT to maintain or disrupt rapport. Studies that have explored the construction and maintenance of relational social presence and digital technologies have been heavily dependent on what seems now be an outdated understanding of time. Such assumptions hold that interactions rely on communication that is linear and temporal (see Berlo). Yet Turkle notes that today’s adolescents create their online personas in a multitude of ways including a wide variety of social networking sites, web pages, or even through playlists of music.76 It is reasonable to argue that with the
“always-on/always-on you” communication culture identified by Turkle, such fractured forms of communication cannot be transfixed nor measured in linear constructs of time, but rather, studied in terms of their ability to transcend a multitude of social, spacial and temporal contexts. Future work in this area might include studies that treat communication as post-modernist, perhaps fractured or fractal aberrations of an individual’s identity. Our notion of “communicative self” may be fragmented, plural representations in various and simultaneous frameworks. Such assertions of an individual’s identity as complex and mediated reflect a first glimpse of how future studies might advance our understanding of the unrestrained, mediated spaces that MT provides. Just as Barnett Pearce’s notion of communication-as-episodic served as a bridge to new ways of understanding, so can the ideas emerging from MT lead the field to new theoretical and methodological imperatives.

**Future Research and Theory Development**

Looking back at established and groundbreaking theories of interpersonal communication such as communication apprehension, communicator style, communication competence, facework, uncertainty reduction, expectancy violations, coordinated management of meaning, or social penetration, it is clear that our notions of the role and pragmatics communication plays in relationship development must be reconsidered, if not rewritten. For many of us, interpersonal communication was always about people meeting and interacting FtF, but young college students are telling us such exclusive conceptions may no longer be valid, even among romantic partners. Today’s communication process not only takes place in a multiplicity of converging socio-spatial, ventriloquist contexts, but also continuously across time, through a plethora of media. A seismic shift may be taking place in the crust of interpersonal/relational development. Additional empirical studies are needed to confirm this report’s findings. Studies of actual interpersonal relationships and how digital media affected them over time or, examining the mediated, developmental role of MT in how people meet and evolve interpersonally through the dominant impact MT seems to be having are requisite.

**Caveats**

There are several limitations to this research. First, while representative, it is a convenience sample of college communication majors. Critics will rightfully argue that there is an inherent social desirability bias in asking communication students about how mobile devices have changed the way they relate interpersonally. As we suggested in the research methods section, this bias should have the effect of underestimating the degree to which mobile devices are influencing their interpersonal relationship development. Second, our methodology is exploratory and does not lend itself to developing specific new theory, but offers empirical weight to the extant literature. We have suggested that future research examine both qualitatively and quantitatively specific interpersonal relationships in various stages of...
development, recognizing explicitly that such communication often takes place in a
mediated form among today’s young adults in a variety of converging and interactive
contexts. This makes the communication process (simultaneity, interdependence and
temporal unfolding), first advanced by Berlo and critiqued by O’Keefe, Delia, and
O’Keefe,85 even messier. Such studies can examine how MT has impacted both
relationship quality and durability, and at what points in the relationship. Third, the
extensive use of MT in this study is supported by national studies of mobile device
use among teenagers conducted by the Pew Research Center. We must now drill
deeper into the specificities of how MT is used by both young people and older adults
across a wide array of relationship development activities, in various converging
contexts like organizational, educational, health and intimate relationships.86

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Notes

2013: Weekend Confidential.


[3] Ibid., 626.


[5] François Cooren, “Communication Theory at the Center: Ventriloquism and the

[6] Sherry Turkle, Alone Together: Why We Expect More from Technology and Less from Each

[7] Cooren, “Communication Theory at the Center: Ventriloquism and the Communicative
Constitution of Reality.”

[8] Nancy K. Baym, “A Call for Grounding in the Face of Blurred Boundaries,” Journal of


Exploration of the Relationship between Australian Youth and their Mobile Phones.”


LLC, 2012).


[17] Ibid., 289.


[30] Ibid., 177.


[33] Ibid., 129.

[34] Baym, “A Call for Grounding in the Face of Blurred Boundaries,” 721.
[42] Baym, “A Call for Grounding in the Face of Blurred Boundaries.”
[47] Ibid.
[50] Ibid., 187.
[51] Ibid., 88.
[55] Ibid.
[56] Ibid., 190–200.
[57] Ibid., 196.