Spring 5-11-2012

Disconnected: College Freshmen Experience Communication without Technology

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by

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A Thesis
Submitted to the Honors College of
The University of Southern Mississippi
in Partial Fulfillment
of the Requirements for the Degree of
Bachelor of Arts
in the Department of Communication Studies

May 2012

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Introduction

We are in a technological revolution, where "Generation Next" is surviving and thriving in a digital world. New and improved methods of communication through technology have altered the way we live and communicate. Today's young adults, who have grown up with personal computers, cell phones and the internet, are living in a whirlwind of innovation and advancement "and are now taking their place in a world where the only constant is rapid change" (Pew Research Center, 2007). They cannot remember or imagine a world without such advanced technology. Modes of digital communication such as the cell phone, internet, and social networks are seen as a vital connection to the outside world.

Only 20 years ago, the bag phone was seen as an accessory. Today the smartphone is a necessity. For many, a cell phone serves as a person's only lifeline, and address books have become virtually non-existent, while the only phone number they know is their own. With the debut of Facebook, high school reunions seem less necessary, and Twitter gives followers the ability to know what their favorite movie star had for breakfast. This generation has never known technology as a mere accessory.

The way in which people interact through this digital means is referred to as computer-mediated communication (CMC). Considering the fast-paced and quickly changing nature of technology, CMC is formally described as, "the process by which people create, exchange, and perceive information using networked telecommunications systems that facilitate encoding, transmitting, and decoding messages" (December, 1996). Communication is the lifeblood of human interaction, and technology has been its pathway for quite some time. Not that long ago, this concept of communication by technological means would have been seen as a deviant, far-fetched idea. Now, relationships are both maintained, and even built from scratch, by

technological means. Schiffrin et al. (2010) has examined the correlation between interpersonal communication and technology in her article. She responds that "communicating online or by cell phone is the norm for Generation Next…this sort of "self-disclosure" is central in the development and maintenance of relationships."

One of the most active communities in which to observe this type of communication is a university campus. College students are in such a relevant position to experience all of the positive and negative influences of innovative technology on their personal lives. In a learning environment, as well as a social crossroad, college students especially crave any communication that is new, efficient and easy. A study done by Vanden Abeele and Roe (2009) indicated that a typical American college freshman's social life would benefit from using various technologies such as texting, instant messaging and online social networks, because they are building so many new relationships. Also, an American college student's abrupt change of environment, beginning as a freshman, has much to do with their use of CMC, as they juggle old and new friendships in such an unfamiliar, vast environment.

Prevalent in literature ranging anywhere from academic journals to blog posts is the concern that because technology is so dominant in the daily lives of people in today's society, it is doing more harm than good. It is beneficial to examine the lives of college students, because they are in such an ideal situation to experience an information overload, as a result of the pervasiveness of technology. Regarding this possibility, Richtel (2010) claims in his article "Attached to Technology and Paying a Price" published in *The New York Times*, "Scientists say juggling e-mail, phone calls and other incoming information can change how people think and behave. They say our ability to focus is being undermined by bursts of information." There is the possibility that this information overload may affect students' interpersonal communication and

their awareness of the world around them. Are college students paying a price to revel in the benefits of the newest technology? It is likely that the perks of an easily accessed digital world and a broadened social network may also encourage a distracted and consumed mind, along with weakened face-to-face communication.

Honing in on the population of college freshmen, the study proposed in this thesis will examine the responses of these students to a 24-hour fast from technology. Because of the pervasive nature of technology and its significant role in a person's daily routine, even in just 24 short hours, much can be learned about the way a college students' world changes without their means of digital communication. To analyze the effects that something like technology has on a student's interpersonal communication, their use of the technology can be controlled and observed by means of a fast. A way to measure some response to the effects of a certain media lies in the concept of abstinence. This type of self-restraint, or moderation, is commonly experienced through individual fasting, but rarely recorded in groups.

Guided by a literature review, several concepts and factors that have been previously published will guide the underlying themes of this study. In this thesis, I will describe the extent to which CMC is embedded in the lives of college students. Through this study, the research questions and data will test the displacement theory of communication, as well as discover how a technology fast can be improved for the use of Higher Education and research among college students. Both survey and interview data will add to our knowledge of how college students' computer-mediated communication affects their broader communicative world. If anything else relevant is found throughout this study, it will be noted as well.

Literature Review

Computer-mediated Communication

Within the realm of communication studies, a term that commonly refers to the use of technology to exchange messages and meaning is called computer-mediated communication (CMC). Computer-mediated communication involves the use of computer-supported technologies such as internet-based social networking, text messaging, instant messaging, email and other forms of digital communication that aid in "the process by which people create, exchange, and perceive information" (December, 1996). Research also refers to communication technology as "media" or "social media," which also encompasses the spectrum of mass media or any vessel for information that reaches or influences people on a wide scale. Jones (1995) illustrates in his publication *CyberSociety: Computer-mediated communication and community* that CMC is "not just a tool; it is at once technology, medium, and engine of social relations. It not only structures social relations, it is the space within which the relations occur and the tool that individuals use to enter that space." Through this mediated communication, people have access to a mode of immediacy that allows them to connect to the outside world, or another person's world.

Research in the area of communication studies shows that there is a distinction between two types of communication, referring to the timing of messages: synchronous and asynchronous communication. Romiszowski & Mason (1996) describe synchronous communication as "real-time communications, as between two people in a face-to-face discussion, talking on the telephone, or in a one-to-many form, such as a lecture, has its equivalent within CMC in chat rooms and similar environments." Instant messaging is a form of synchronous communication, as well as talking on the phone, because there is no delay or dead-time in the messages being

communicated, and the communicators receive direct responses. Asynchronous communication, on the other hand, involves a time delay between sending a message and it being read. Some examples of asynchronous technology include e-mail messages, text-messages, and online discussion boards. Romiszowski and Mason put it well when they write, "CMC provides for complex processes of interaction between participants. It combines the permanent nature of (text-based) written communication with the speed, and often the dynamism of spoken communications, for example via telephone. The possibilities for interaction and feedback are almost limitless." Through both asynchronous and synchronous messages, college students are continuously exchanging meaning as a part of their daily routine (Romiszowski & Mason, 1996). An intricate understanding of the categories within CMC can help researchers better analyze how and why each is used during communication.

Technology Usage

Easily detectable in our society is the notion that technology is so pervasive. What is more difficult to pinpoint, however, is the reason why people allow technology to become such a significant part of their life. It makes sense that the technology industry and the desire for innovation cause people to be consumed in a digital world. As technology has advanced, the role of the cell phone and its importance on the average person's daily routine is weighty. The prevalence of technology has changed and shifted over time as cell phones have continued to permeate everyday life. Technology, especially cell phones, in this generation is more than just a new fad or a nifty tool. For many, it is a way of life. There are specific reasons why people choose to communicate by cell phone and why they choose this mode of communication instead of face-to-face much of the time.

What is interesting about the generation of college students today is that they do not know a world without technology. Supporting this idea, Schiffrin et al. (2010) states, "For people who have always communicated online, there may be no distinction between CMC and FTF (face-to-face) communication for maintaining relationships or well-being." This confirms the hypothesis about why individuals choose to privilege a phone call over the face-to-face conversation. Riforgiate (2008) follows this idea stating, "Most of the college students I encounter have lived their whole lives with this technology, so it makes it difficult to imagine not having immediate access to their networks of friends, family, co-workers, and even casual acquaintances." Essentially, young adults more often prefer the quick and efficient electronic conversation over an encounter in person, because this is the type of communication they are most familiar with.

To understand the reasons for technology communication use, the types of usage must be observed. A person may either be using technology for task-related or pleasure-related reasons. Not only is the focus solely on social purposes, but to many people, technology is necessary for modern-day survival. In her interviews and personal experiences, Riforgiate (2008) also says, "My students explain how they use them (cell phones) not just for emergency phone calls, but to talk to friends, order food, play electronic games, listen to music and even watch movies. Students also use cell phones as calculators, alarms and in place of email they text message." This author even admits to agreeing with one of her interviewees, in calling her cell phone a "lifeline."

When Schiffrin et al. (2010) administered a questionnaire to ninety-nine undergraduates from a small, public liberal arts college in the mid-Atlantic region, she was hoping to find a correlation between CMC and relationship maintenance and well-being. The results that she

found regarding technology use among college students showed that, “Virtually all college students have access to the Internet and use it several hours a day both for goods and information acquisition and for social purposes” (Schiffrin et al., 2010). She also reported that her subjects tended to use e-mail messaging for task-related and business purposes, while instant messaging and social networking sites were more favored for social purposes. It was noted that other research confirms that people find e-mail to be less useful for building and maintaining relationships than other means such as instant messaging, phone calls or social networking (Schiffrin et al., 2010).

In a cross-cultural study involving American college freshmen and European Flemish freshmen, the social networks of these students were examined under the microscope of communication technology (Vanden Abeele & Roe, 2009). The social lives of American college freshman and European Flemish freshmen were very different. The average American college student may travel some distance across the country to attend college, and their new environment may be vastly different from where they originated. New relationships constantly form and the relational horizon is ever-expanding. On the other hand, Flemish students traditionally attend college within the same close-knit area in which they grew up, which indicates that their physical and relational environment seldom changes. These students are more concerned with keeping and maintaining their current relationships with family and friends.

As a result of geographical factors, each of these groups of students uses technology to foster different kinds of relationships and communication goals, because of the culture of their college experience. This study indicated that “an American college freshmen’s social life will benefit more from using communication technology such as texting, instant messaging and

online social networks to build new relationships, while Flemish freshmen benefit more from using the same technology to retain old friendships" (Vanden Abeele & Roe, 2009).

Thus it may be the case that technology and the reason why people use it may depend solely on the nature of their old and new social networks, including both family and friends. Vanden Abeele and Roe (2009) continue to explain, "As freshmen enter college, particularly when their college is at a certain distance from their family home, they are confronted with the duality of having a strong social network which is geographically distant and at the same time a weak, yet-to-be-built social network which is geographically close." This cross-cultural comparison demonstrates that the typical American college freshman, with both a distant and close social network, depends on communication technology such as cell phones and internet to maintain their geographically close and long-distance relationships. Schiffrin et al. (2010) confirms this study, mentioning, "The majority of people (in the U.S.) use the Internet to communicate with family and friends who live both close by and more distantly." Both old relationships, which are often in further social networks, and new relationships, which are closer but spread out around a college campus are in need of upkeep, and technology serves this purpose.

A Theoretical Perspective

A theoretical framework is often necessary to explain complicated concepts. Technology discussed in literature is a fairly recent pattern. Because of this, several theories have been proposed to make sense of digital communication. Theory can be used to help make discussion more tangible and relatable to the perspectives of human interaction. Schiffrin et al. (2010) mentions some concepts in her study that challenge computer-mediated communication's effect on the development and maintenance of interpersonal relationships. She expounds on the theory

of self-disclosure and social penetration. In her study, it is clear that social support is vital to a person's well-being, and relationships are formed by the exchange of self-disclosure. Self-disclosure occurs "when a person provides (or discloses) information about himself or herself to another" (Altman & Taylor, 1973). Moreover, the theory of social penetration suggests that relationships are created through this process of mutual self-disclosure, which allows people to open up and share an "interpersonal bond" (Altman & Taylor, 1973). Continuing in her study, Schiffrin et al. (2010) connects the use of computer-mediated communication with how people may initiate this self-disclosure and how their relationships and personal well-being may be affected when they communicate over the Internet rather than face-to-face.

Another theory mentioned in literature is social presence theory, which is discussed by Riforgiate (2008) in a National Communication Association conference paper. This author conducted several field observations, intensive interviews and personal discussions to conclude that most college students have indeed lived their whole life with such advanced technology and find it difficult to imagine "not having immediate access to their networks of friends, family, co-workers, and even casual acquaintances" (Riforgiate, 2008). Social presence comes in right behind this notion, suggesting that technology such as cell phones allow people to feel a close connection to others. Social presence theory, according to Alberts, Nakayama and Martin (2007), "refers to the feelings of psychological closeness or immediacy that people experience when interacting with each other." Digital communication provides people with the feeling that they are "present" with another person because of the quick and easy access to interpersonally communicate through technology.

As taught in an Interpersonal Communication class at the University of Southern Mississippi, the theories found in Adler's (2007) textbook *Interplay: the Process of*

Interpersonal Communication are remarkably relevant. Adler explains dialectical theory through several dialectical tensions, or push and pulls, between people in an interpersonal relationship. One tension in particular relates to the way technology causes people to adjust their interpersonal communication; Adler discusses this dialectic in the context of Baxter's (1994) interpretation. The connection-autonomy dialectic reveals a struggle between two people, where one or both either want to feel connected through sharing and closeness, or they crave independence. This push and pull between the two dimensions is constant, always causing one or both communicators to adjust their closeness or independence for the sake of communication.

McGlynn (2007) confirms Baxter's theory in relation to computer-mediated communication, by explaining that the results of his study "further suggested that CMC enabled participants to manage more effectively relational tensions of autonomy-connection and openness-closedness." The question, then, is what exactly counts as "connection"? Pre-technology, connection and closeness meant being together in person. Now, social media such as technology has redefined what it means to feel "connected" to others. It appears that the meaning of connection has evolved, and it is possible that for Generation Next technology has replaced the idea of face-to-face closeness. Rather than technology being seen as an isolation factor, this theory suggests that individuals today may even feel "disconnected" without their technology. Further discovery should be sought to explain this evolution of meaning.

The displacement theory is most often used to refer to the study of mass communication media, but Emanuel et al. (2008) applies this concept in his journal article "How College Students Spend their Time Communicating." This author proposes in his experimental study that the use of new communication technology devices to interact with other people may be affecting the time they spend using other skills, such as speaking and listening. This study uses McCombs'

(1972) theory of displacement to explain this phenomenon. Displacement theory argues that "participation in one communicative domain takes away from the time and financial resources allocated to the other" (McCombs, 1972). Aside from the reference to finance, this theory directly supports the claim that the use of such technological devices may replace, or displace, other forms of communication or interaction with other people.

Because of technology's pervasive nature and prevalence in today's society, college students are spending just as much time submersed in their social media as they are engaged in conversation (Emanuel et al., 2008). The author of this study extrapolated the notion of McCombs' theory of displacement when he says that "Consumption of one particular set of communicative activities displaces other forms of communication activities" (Emanuel et al., 2008). The study written by Emanuel et al. proposes the research question "Has the diffusion of new communication technology altered the ways in which college students spend their time communicating?" The study asked 842 college students to categorize their time spent participating in communication activities within a normal 24-hour period. The quantitative results showed an even distribution of time spent in the top three activities: reading and writing, having face-to-face conversations, and listening to/watching television. If the displacement theory is reconstructed in reverse, one might discover which types of communication a student may rely on in the absence of technology.

The author mentions in the discussion, "As new communication devices emerge, it would be useful to examine how they impact receptive, expressive and interactive communication" (Emanuel et al., 2008). While this study thoroughly examined college students' distribution of time spent communicating (with the availability of technology), much more could be learned

about their communicative habits if such an influential element of communication was removed. Students may drastically change their communicative behavior in the absence of technology.

Technological Deprivation

Although college students' time spent communicating has been previously assessed, there is little known about the change in communication when technology is removed from students' daily routine. This removal, referred to in this study as a fast, can have significant implications on the way a student chooses to interact with others or how they feel when they have been disconnected from electronic media. A study conducted by the International Center for Media and the Public Agenda (ICMPA) at the University of Maryland called "24 Hours: Unplugged" did seek to find out how technology affected students' daily lives (University of Maryland, 2010). Ottalini (2010) reports from the *UMD Newsdesk*, "The new ICMPA study…asked 200 students at the College Park campus to give up all media for 24 hours. After their 24 hours of abstinence, the students were then asked to blog on private class websites about their experiences: to report their successes and admit to any failures."

The conclusions and implications of this study revealed intriguing results. Ottalini (2010) reported comments from the project director, Dr. Susan Moeller. "We were surprised by how many students admitted that they were 'incredibly addicted' to media…Going without media meant, in their world, going without their friends and family." This campus-wide study focused mainly on students' perception of addiction to electronic media and how they were "functionally unable to be without their media links to the world" (University of Maryland, 2010). While Moeller's study evaluated students' addictive responses to the absence of technology, it did not address how the fast affected their communicative habits and interpersonal interaction.

Rationale

The rationale of this research is built upon the study of distribution by Emanuel et al. This study further explored college students' time spent communicating by removing technology altogether as an option of communication. This research paralleled that of the University of Maryland's media fast, but aimed to narrow the focus to communicative behavior. Primarily this study sought to find evidence of McCombs's displacement theory, applied when one (obviously pervasive) form of communication is removed. Also, this study observed other factors would evolve in a technology fast that affected the interpersonal lives of college students, specifically freshmen.

The investigation involved in this research occurs within a pre-existing event conducted by the Luckyday Foundation Citizenship Scholarship Program at the University of Southern Mississippi. Previously, no research has been conducted alongside the annual technology fast, which is part of the Luckyday seminar during the fall semester. The specifics of this study follow the same guidelines that are already in place for the event; however, the following procedure and instruments are modified to answer the proposed research questions. The opportunity to collaborate with a university event not only added interesting research to my specific field, but also significantly contributed to the Luckyday Program's knowledge of the fast's affect on their own students. The following investigation measures the impact of technology on the way first-year college students communicate, using both quantitative and qualitative data and analysis. The study primarily explores college freshmen's distribution of communication time during the fast, their decision-making related to use of their time, and their sense of connectedness to the world through and without CMC.

Research Questions

1. Did the phenomenon of displacement occur during the technology fast?

   Hypothesis: There will be a significant redistribution of the amount of time spent communicating during the fast.

2. What factors influenced students' decisions to choose alternative non-technological communication means during the fast?
3. How did the technology fast affect students' feelings of being connected to the world around them?

Methodology

In order to thoroughly answer the research questions presented, quantitative and qualitative data were collected and analyzed to explain communication phenomena. First, a population was obtained for the experiment, which included first-year college students. Second, I administered a survey instrument to these students and conducted follow up interviews with seven volunteers from the sample pool. Third, the data were analyzed and interpreted for relationships among the variables, in order to provide results that contribute to the field of study.

Participants and Procedure

The research involved a purposive and demographic sample of 93 college freshmen in the Luckyday Citizenship Scholar Program at the University of Southern Mississippi. The scholars were residents of the state of Mississippi, yet they represented diverse backgrounds and majors. These first-year students were a part of a living-learning community, where they lived together in the same residence community on campus and took a leadership class in the fall semester with other peer scholars. While keeping a record of their community service, they must also have maintained a 3.0 GPA in order to keep their scholarship. Although this sample could not generalize for all freshmen or the university population as a whole, it represented freshman who were academically and philanthropically sound.

During the fall semester of 2011, Luckyday freshmen were required to participate in a 24-hour technology fast as a part of the course curriculum of their Luckyday class. These students received class credit for completing the fast and were given an assignment to journal about their experience. Each student was allowed to choose which day and time to begin their fast, within a two week period at the end of September. They were instructed to spend 24

continuous hours without using any form of technology or electronic media. Then, in agreement with the Luckyday Program and after receiving IRB approval for the research, the survey instrument was administered in the spring of 2012. The program coordinators helped to distribute the surveys to each student during a series of small group meetings. The questionnaire took approximately 10 minutes to complete. Out of the 105 surveys collected, ninety-three of them reported a completed technology fast.

Students were also asked to enter their contact information at the bottom of the survey if they would be willing to participate in a follow up interview, in order to provide qualitative data to further the study. Eighteen students volunteered; ten of them were randomly selected to be interviewed. This follows Creswell's (2007) suggestion to keep the qualitative sample to a manageable size, so as to avoid an overwhelming amount of data. Out of the ten students contacted, seven responded and were interviewed within the following weeks. Two of these students were male and five were female. The interviews were conducted inside study rooms in the campus library and they each lasted between 15 and 20 minutes. Responses were recorded for accuracy and then deleted when the research was complete. The names of these subjects were kept confidential. The interview approach added significant explanations of students' experiences.

Instruments

The quantitative portion of my research sought to explain the phenomena of displacement in communication. The survey instrument was necessary in evaluating the students' technology fast experience and quantifying the correlation between technology use and each student's distribution of time spent communicating. I met with the coordinators of the program to inquire about any information they would like to discover through my study. They volunteered

comments about their interest in how student awareness was affected through the fast. Based on this foundation, some questions in the survey and interview were developed to expand upon the program's current knowledge. The survey instrument was carefully constructed in the context of the displacement theory, and many questions formed naturally around the interests of the Luckyday program coordinators.

The questionnaire included four sections, the first being only demographic information. The second and third sections replicated part of a survey used in a study by Emanuel et al. (2008), which showed the distribution of a college student's time spent communicating. This information was collected much like in Emanuel et al.'s survey, except the data were self-reported. Section two assessed students' time spent participating in various non-technological activities, such as face-to-face interaction, alone time, reading and writing. Section three asked the students to record an inventory of time spent participating in activities of a technological nature, such as talking on the phone, text messaging, using the internet, watching television, word processing and listening to music.

The questions in the fourth and final section of the survey instrument sought to measure the significance of the displacement theory among the participants in this study. The items inquired about students' change in the time spent communicating through various activities in the absence of technology. Survey respondents used a Likert Scale system to select Strongly Disagree, Disagree, No Opinion, Agree, or Strongly Agree. These questions were developed by the researcher in consultation with the thesis advisor and were based upon knowledge of the Luckyday Program's previous experience with the technology fast.

The interview instrument served to clarify and complement the survey data. Because some survey questions were ambiguous, the interview questions helped to get a better idea about

what students meant by their answers to those survey items. The interview questions prompted the students to describe their communication and experiences during the fast. These discussions were conducted in order to discover individual student perceptions of their own interpersonal interactions, in the absence of computer-mediated communication.

Data Analysis

Quantitative. Once compiled, the survey data were subjected to a descriptive and frequency analysis, using the SPSS Version 18 program. Dr. Steven Venette, Professor of Communication Studies at the University of Southern Mississippi assisted with the data analysis. The results from the first three sections of the survey included descriptive statistics; then, frequencies and percentages were used to describe the results of the final section of the survey. The table below is an example of quantitative data that were collected and organized to show the distribution of time spent hand writing text:

I spent more hours hand writing text		
	Frequency	Percent
Strongly Disagree	6	6.5%
Disagree	34	36.6%
No Opinion	12	12.9%
Agree	31	33.3%
Strongly Agree	10	10.8 %

Qualitative. To analyze the qualitative data, this study used the phenomenological approach, describing "the meaning for several individuals of their lived experiences of a concept or phenomenon" (Creswell, 2007). Each of the seven interviews was analyzed for specific themes and categories. The first stage in narrowing interview data involved listening to the

recorded interviews three times each. The second stage in the process used the method of thematic interpretation (Owen 1984), by summarizing each interviewee's comments and grouping them into "family themes." A list of common words or phrases was compiled to describe these shared experiences. Several behaviors (RQ 1), factors (RQ 2), and emotions (RQ 3) mentioned by each participant were noted if more than one of the interviewees volunteered the information. This process helped to merge certain themes into categories that could be used to define and explain each RQ.

Results

Preview

The results in this study are reported in order of research question. Before the breakdown of data, however, I will first go over the results of the demographic questions, which include the first three sections of the survey and consist of 16 items. While 104 surveys were collected, only 93 students indicated that they completed the entire 24-hour technology fast. These are the participants taken into consideration. There were 62 females and 28 males participating in the study, and 3 surveys did not specify a gender. Gender was obtained to affirm that the Luckyday students' population paralleled that of the freshman class as a whole. Likewise, for the academic year 2011-2012, one-third of the university's first-time freshmen were male, and two-thirds were female (Office of Institutional Research, 2011). Regarding the students' technology, all 93 participants owned a laptop or PC and a cell phone; 81 people owned cell phones with internet access.

In the second section of the survey, each participant completed a self-reported inventory of how often during a 24-hour period they normally spent in communication activity. All numbers were rounded to the nearest tenth. On average, these participants had 18.5 face-to-face conversations with friends and acquaintances and 4.4 conversations with strangers during a normal day. They also reported spending 4.8 hours alone, 1.8 hours reading hard copy text, and 3.6 hours hand-writing text daily. In the third section, the participants were asked to indicate their daily use of computer-mediated communication. On average, they spent 4.3 hours on the internet, 1.5 hours watching television, 2.9 hours listening to music, and 2.1 hours on a word processing program. Also, the participants sent or received 137.9 text messages a day and had 5.9 phone conversations. The following results reported significant data from the fourth and final

section of the survey, as well as data that were obtained through interviews with 7 volunteer students who provided follow up information.

RQ 1: Did the phenomenon of displacement occur during the technology fast?

Based on the quantitative and qualitative results collected, the majority of data confirms that displacement did occur during the technology fast. Any time a student reported that they spent "more" or "less" time participating in a non-technological form of communication during the fast, displacement occurred. The questions in the final section of the survey sought to measure the significance of the displacement theory among the participants in this study.

Using a Likert Scale, survey respondents were asked to circle one item from the choices Strongly Disagree, Disagree, No Opinion, Agree, or Strongly Agree. Question 1 asked the students if they had more face-to-face conversations with friends and acquaintances during the fast than they normally have; 24.7% of the respondents said they Disagree or Strongly Disagree that they had more face-to-face conversations than normal. On the other hand, 66.7% of the students said they Agree or Strongly Agree that they did, in fact, find themselves involved in more face-to-face interaction during the fast. 8.6% of the participants answered No Opinion.

1. I had more face-to-face conversations with friends		
	Frequency	Percent
Strongly Disagree	3	3.2%
Disagree	20	21.5%
No Opinion	8	8.6%
Agree	46	49.5%
Strongly Agree	16	17.2 %

Question 2 asked the students if they spent less time alone during the fast than they normally do. A little over half of the participants (53.8%) indicated Disagree or Strongly Disagree that they spent less time alone. This either means that these students did spend more time by themselves, or that their normal alone time did not change. The distinction is uncertain, because of the wording of the question. What is certain, however, is that these students did not spend more time than usual with other people. By contrast, only 35.5% of participants reported Agree or Strongly Agree that they did spend less time alone. This means that these students spent more time with other people during the fast.

2. I spent less time alone		
	Frequency	Percent
Strongly Disagree	8	8.6%
Disagree	42	45.2%
No Opinion	10	10.8%
Agree	25	26.9%
Strongly Agree	8	8.6 %

Inquiring about participants' interactions with strangers during the fast, question 3 asked if students had more conversations with strangers than they normally do. Approximately a fifth of the participants, 20.4%, had no opinion. Forty-three percent claimed to Disagree or Strongly Disagree that they had more conversations with strangers, while 36.6% Agreed or Strongly Agreed that they had more interactions with people they did not know during the fast.

3. I had more conversations with strangers		
	Frequency	Percent
Strongly Disagree	5	5.4%
Disagree	35	37.6%
No Opinion	19	20.4%
Agree	28	30.1%
Strongly Agree	6	6.5%

Unlike the previous three questions, the next three questions dealt with communication that focuses on the individual and does not involve interpersonal interaction. These questions shed some light on a student's communication habits and personal experience during the technology fast. Also, Question 4 was intentionally inserted into this section to deter any assumptions about the end goal of the study and to keep the participants' answers candid. Question 5 asked the students if during the fast they spent fewer hours reading hard copy text than in a normal day. According to the data, 68.8% said they Disagree or Strongly Disagree that they spent fewer hours, which means that they either spent more time reading hard copy text or experienced their normal activity. 14% of respondents said they Agree or Strongly Agree that they spent fewer hours reading hard copy text during the fast.

5. I spent fewer hours reading hard copy text		
	Frequency	Percent
Strongly Disagree	9	9.7%
Disagree	55	59.1%
No Opinion	16	17.2%
Agree	12	12.9%
Strongly Agree	1	1.1%

Question 6 asked the participants if during the fast they were more aware of nature than normal. Inquiring about whatever they defined as "nature" or surroundings, this question sought to gauge the students' awareness and alertness when technology was not present. Of the respondents, an impressive 74.2% said they Agree or Strongly Agree that they were more aware of nature during the fast, and 16.2% Disagree or Strongly Disagree.

6. I was more aware of nature		
	Frequency	Percent
Strongly Disagree	2	2.2%
Disagree	13	14%
No Opinion	9	9.7%
Agree	43	46.2%
Strongly Agree	26	28%

The last question on the survey that pertains to Research Question 1 asked if the participants spent more hours hand writing text during the fast than in a normal day. Of the respondents, 43.1% reported Disagree or Strongly Disagree that they hand wrote more text during the fast, while 44.1% reported to Agree or Strongly Agree that they hand wrote more text.

It appears that there was no apparent redistribution of time spent hand writing text during the fast.

7. I spent more hours hand writing text		
	Frequency	Percent
Strongly Disagree	6	6.5%
Disagree	34	36.6%
No Opinion	12	12.9%
Agree	31	33.3%
Strongly Agree	10	10.8 %

Interviews

For Research Question 1, the qualitative data collected from the seven volunteer interviews provides results that function to clarify and complement the survey data. Interview questions 4, 2 and 6 shed light on the theory of displacement. Question 6 served to clarify any confusing answers or language from the survey questions about time spent communicating during the fast. For example, on the survey, questions 2 and 5 asked if the student spent "less" time doing the activity, rather than "more" time. The responses to these questions were challenging to decipher. Fortunately, interview Question 6 helped to clarify those answers.

It was discovered that among the interviewees [3] who marked Agree or Strongly Agree to spending less time alone during the fast, did, in fact, spend more time with people. Those interviewees [2] who said they Disagree or Strongly Disagree to spending less time alone did spend more time by themselves. Finally, the interviewees [2] who marked No Opinion for this question reported they experienced no change in the amount of time they spent alone or with

others. This data were reported to clarify potential ambiguity found in these specific survey questions.

Questions 2 and 4 of the interview provided feedback about how the students spent their day communicating without the presence of technology. The responses of all seven interviewees were categorized into 6 groups of communication activities, including Physical Effort to Contact Others, Meaningful Conversations, Productivity, Creativity, Observation, Reflection, and Sleep. Each of the activities was named at least twice among the seven students, and these activities are ones that the interviewees reported they had done more or less of during the fast.

Three of the seven students mentioned that they made a physical effort to contact someone, which included either traveling down the hall to knock on a door or using others to get in touch with a friend. Five respondents found themselves engaged in more meaningful conversations, where they claimed they "didn't just half-listen" and were "intentional with [their] words." Four students said they were more productive during the fast because they "weren't distracted," and two students said they were less productive because they "didn't know what to do with the time…[they] just laid there." Regarding creativity, three of the seven students reported that they either invented games or invested in their hobbies to pass the time during the fast. All seven interviewees said in their interviews that they felt more observant and "paid attention to detail when walking around" and "heard more sounds in nature." Also, five students said they were able to reflect or think more without technology. This happened through daydreaming, being "forced to rely more on [their] memory" or by experiencing self-evaluation that comes through solitude. Lastly, two students reported that they slept more during the fast, because they "had nothing else to do" or "didn't have technology interruptions."

Activities of Displacement	Number of Interviewees	
	More	Less
Physical Effort	3	0
Meaningful Conversations	5	0
Productivity	4	2
Creativity	3	0
Observation	7	0
Reflection	5	0
Sleep	2	0

RQ 2: What factors influenced students' decisions to choose alternative communication?

The results for Research Question 2 were gleaned from my interviews. The respondents' answers were organized into distinct categories. The students' answers to interview questions 1, 2 and 3 were analyzed for cues of any factors that caused them to choose a particular mode of communication during the fast. Eight factors were detected in the interviews: Day of the Week, Living Arrangements, Fasting with a Partner, Presence of Others, Boredom, Awareness, Planning Ahead, and Craving Information. Each of the factors appeared at least twice across the seven students.

All seven interviewees reported that the day of the week affected their communication; four students fasted on a weekday and three fasted on a weekend. Some students reported that they "didn't have as many problems" without technology because they fasted on a weekend. Some students who fasted during their weekly schedule found that "doing schoolwork without technology was difficult," but they were "surrounded by friends and classmates." Five students admitted that their living arrangements played a role in how they communicated. All Luckyday

students have to live in the same residence hall, so it was easy for them to walk next door to contact a friend, or "be forced to sit and talk to [their] roommate." Three students said that they fasted with a partner, which gave them the opportunity to "latch on to a friend for the day." This provided them with an automatic source for interpersonal interaction, without having to go outside of their comfort zone. Five students reported that their decision to communicate was a result of being surrounded by other people to avoid being isolated, which "made it easier to have face-to-face" conversations. Five students also said that because they experienced boredom, they chose to communicate differently. For example, one female reported that she went "knocking on doors" of her friends after she had gotten all of her schoolwork done.

Because they found themselves less distracted in the absence of technology, six students reported that awareness played a factor in the way they communicated throughout the day. Many students found themselves "people watching," spending "less time looking at the ground," and noticing the "beauty of nature." In addition, six students disclosed that they planned ahead for the 24-hour fast, which made the day less chaotic and affected the candidness of their communication. Two students reported that because they craved knowledge, they actually searched for ways to obtain information, like grabbing a newspaper or stopping to read flyers around campus. Significant statements are included within the tables below to give examples of each communication behavior.

Factors	Examples	Number of Interviewees
Day of the Week	"less to do" on weekend; "busy schedule" on weekday	7; (4 weekday) (3 weekend)
Living Arrangements	"Walked down the hall to see my friend"	5
Fasting with a Partner	"latched on to a friend for the day"	3
Presence of Others	"Surrounded by other people on campus"	5
Boredom	"I had nothing else to do"	5
Awareness	"Spent less time looking at the ground"	6
Planning Ahead	"I let my friends and family know ahead of time"	6

RQ 3: How did the fast affect students' feelings of being connected to the world?

The results for Research Question 3 were also gleaned from the interviews. Interview questions 2, 3 and 5 elicited responses of emotion from the students. These responses indicated how the fast affected the students' feelings about being connected to people and the world around them. Five main categories of emotions emerged from the interviews that described how the absence of technology made the students feel. These include Frustration, Anxiety, Relief/Freedom, Loneliness/Depression, and Connectedness. Frustration was mentioned by five students, Anxiety was mentioned by four, Relief/Freedom was mentioned by six, and Loneliness/Depression was also mentioned by four. In the table below, significant statements provide examples of each emotion.

Feelings	Examples	Number of Interviewees
Frustration	"It was frustrating without a tracker on my friends"	5
Anxiety	"I worried that someone would have to contact me"	4
Relief/Freedom	"It was nice to be free from distractions for once"	6
Loneliness/Depression	"I felt like I was in prison"	4

Discussion

Preview

The results of this study have led to both expected and unexpected conclusions. Moreover, the findings have provided an intriguing contribution to the study of communication. All three of the research questions were answered, and each will be addressed in order. Following the quantitative discussion, I will discuss only qualitative themes that were indicated by at least four or more interviewees, reiterating only their most common experiences (Creswell, 2007).

First, the survey and interview data in response to Research Question 1, "Did the phenomenon of displacement occur during the technology fast?" will be explained in the discussion. Then, Research Question 2, "What factors influenced students' decisions to choose alternative non-technological communication means during the fast?" will be answered by breaking down the interview results to examine the causes of communication displacement. Research Question 3, "How did the technology fast affect students' feelings of being connected to the world around them?" will be illustrated through the lens of emotion. Lastly, implications for the Luckyday program will be revealed, in order to enhance the educational experience of the technology fast for the future.

Displacement

This study presented the occasion to evaluate the displacement theory against a technology fast, which has never been done before. To recap, McCombs (1972) wrote that displacement theory asserts that "participation in one communicative domain takes away from the time and financial resources allocated to the other." The sheer fact that a majority of students agreed or disagreed to spending either "more" or "less" time in other type of communication,

supported the theory in general. If displacement did not occur when technology was removed, then the students' communication practices would have remained the same across the board.

This means that before the boom of the technological revolution, people were spending their time much differently. The results showed that in the absence of electronic communication, many students experienced the *reverse* effect of displacement. They either reverted back to "old" ways of communicating, automatically replaced the void of technology with something (or someone) else, or did absolutely nothing. Without technology, the students had to find something to fill its place; even if that something was solitude. The survey results to Research Question 1 revealed that during the fast, the reverse of displacement appeared in three ways: primitive use, interpersonal interaction and self interaction.

Primitive use. Primitive use involved the students going back to more primitive or "old" forms of non-technological communication. These included reading hard copy text, like the newspaper or books, or handwriting hard copy text, such as notes or letters. Questions 5 and 7 in the final section of the survey indicated that, without the internet, cell phone, or other medium of technology to keep them occupied, many students slipped back into traditional forms of communication. Without prompting, one young man who was interviewed commented that he felt like he was going back to "the good old days" when he had to read hard copy text and write notes or papers, instead of typing them on his computer. Significance lies in the result that 68.8% of survey respondents disagreed to spending fewer hours reading text. And when clarified with all seven interviewees, this generally meant that the students found themselves reading more text during the fast. The significance of writing more text was less pronounced yet strong: 44.1% reported they spent more time than usual handwriting. These data showed that many students reverted back to primitive communication when technology was removed.

Interpersonal interaction. The survey results indicated that a significant percentage (66.7%) of the Luckyday freshmen also reported having more face-to-face conversations than usual with friends or acquaintances during the fast. Most students chose to engage in more face-to-face interaction in order to communicate, since they were not able to converse through technology. The opposite effect of the displacement theory can be applied to this finding. While the displacement theory implies that participating in technological interaction takes away from other forms of communication, one could also inquire about whether or not a student would revert back to other types of communication in the absence of technology. In looking at the displacement theory in reverse, one would suggest that perhaps students have replaced much of their face-to-face interaction with technology. This could mean that the authenticity of interpersonal interaction is losing its luster, or it is fading with the advancement of electronic communication.

A second component of interpersonal interaction includes the mystery of stranger interaction. While 43% disagreed that they had more face-to-face conversation with strangers, 36.6% still claimed that they talked to more people they did not know during the fast. This variation of responses may signify that a person's personal communication apprehension or personality may have affected their decision to talk to strangers. Four of the interviewees said that they did not go outside of their comfort zone to speak to strangers, while three of them actually took the unique opportunity to meet new people during the fast. It can be concluded that it depends more on the strength of a students' motivation to take that chance, rather than the presence of technology.

Self interaction. Self-interaction involves the behaviors that participants experienced by themselves or within their own cognition, such as being more aware of nature. Survey question 6

in the last section asked the respondents to say whether they were "more aware of nature" without technology. The impressive statistic of 74.2% agreed that they were more aware. This was a higher percentage than expected and reveals much about the use of technology. While interpersonal interaction may be widely affected, so is a student's attentiveness to their surroundings. If without technology students find themselves more aware, then with technology they may be less aware. This directly supports the reverse of the displacement theory; students revert back to being more aware in the absence of technology.

Interview Data

Displacement was also apparent in the analysis of interview data. Seven themes were selected from the interviews, using Creswell's phenomenological approach to categorize "lived experiences of a concept or phenomenon" (Creswell, 2007). Among the seven displacement activities mentioned, four were claimed by at least four of the seven interviewees: Meaningful Conversations, Productivity, Observation, and Reflection. These responses enriched our understanding of what happened to the students' communication during the technology fast.

Meaningful conversations. Five interviewees said they experienced more meaningful conversations. The word "meaningful" is subjective; however, all of the students who fell under this category used the words "intentional" and "listened closer." The students explained that they paid more attention to the words people were saying, finding themselves more engaged in conversation. Adler (2007) explains this notion as "mindful listening." He describes that this concept "involves giving careful and thoughtful attention and responses to the messages we receive…You tend to listen mindfully when a message is important to you" (Adler, 2007). He also contrasts mindful listening with "mindless listening," which "occurs when we react to others' messages automatically and routinely, without much mental investment" (Adler, 2007).

Participants in this study seemed to say that they listened more mindfully when they were not distracted with other forms of communication, such as technology.

One female interviewee associated the words "meaningful" and "intentional" as synonyms. She explained that because she was not distracted by her buzzing phone, her "conversations were very intentional," and she was "very present and in the moment." This student also said that she realized she only "puts half-in" when she is distracted by the information overload that technology causes, and she feels like sometimes "multi-tasking creates some unintentional conversations." Four other interviewees felt the same way, and consistently mentioned that they found themselves listening more closely and caring a little more about what people had to say. According to Turkle (2012) in her *New York Times* article "The Flight from Conversation," the line between tangible relationships and electronic interaction is unfortunately becoming blurred. "Human relationships are rich; they're messy and demanding. We have learned the habit of cleaning them up with technology…Worse, it seems that over time we stop caring, we forget that there is a difference" (Turkle, 2012). The participants in this research were made aware of their attention to other people, and as a result began to reevaluate their concept of intentional and meaningful face-to-face conversation.

Productivity. While four interviewees said they were more productive during the fast, it is interesting to note that two other people said they were less productive. First, those who said they were more productive fasted during a weekday. They mentioned that they were able to do more homework and get more things done without the ongoing distraction of technology. During the weekday, the average college student has to attend class and may have a job or other responsibilities to uphold. One female said, "I was more productive because I wasn't distracted." Those who fasted on a weekday also consistently said that they got their homework done early

and found other productive things to do, whether that was participating in a hobby or making conversation with other people. The students who claimed to be less productive, however, fasted on a weekend. One female who admitted to being less productive said, "I was just lazy…I didn't know what to do with my time…I just laid there." This could be due to the less hectic routine of a weekend, or because this student did not make an effort because she did not have to.

Observation. This is the most encompassing category of them all. All seven interviewees found themselves more observant of their surroundings during the technology fast. This largely validates the finding that 74.2% of survey respondents were more aware of nature. Awareness and observation go hand in hand. In the absence of technology, interviewees said they "heard more sounds around them," and one male student said that while he was sitting on a bench on campus, he actually closed his eyes and listened for the variety of noises around him. He also claimed to "people-watch," and said that when people saw him paying attention, they, in turn, paid him attention. This student also said, "The day went by so slow," due to his constant awareness of every sound, every person and every part of nature that he came in contact with.

Another male interviewee said, "I actually looked up from my phone." A female interviewee confirmed that comment by saying that she spent "less time looking at the ground," without her phone as the focal point. It is intriguing how many students agreed that they were too submersed in their technology to notice the world outside their electronically-distracted mind. The reverse of the displacement theory suggests that the use of technology keeps people from being as observant as they once were when technological innovations were few. In previous generations, the brain was not as preoccupied.

Reflection. Five students said they were able to reflect or think more without technology. As mentioned in the results section, an interviewee reported that she spent more time

daydreaming and thinking in the absence of technology. One male student said, "I was forced to rely more on my memory," without the ability to make to-do lists on his phone. This same student said, "I had to do simple calculations in my head," referring to leaving a tip at a restaurant. Some of the five interviewees experienced self-evaluation that came through solitude. A female student, who enjoyed running on a jogging trail behind her dorm, said that because she did not have her iPod to listen to while running, she had more time to reflect. She was not able to let the music in her ears add noise to her own thoughts.

The analysis of each of these communication activities experienced without technology can be useful to broaden the notion of displacement. McCombs's (1972) theory suggests that displacement occurs when replacing one older form of media or technology with a newer form. Displacement theory does not have to be limited to one type of communication, either computer-mediated or non-technological. The theory of displacement can be made more useful in the field of communication by taking a broader view at what kinds of traditional or non-technological communication are being replaced *by* technology and media. This reverse approach has been confirmed, as this study has examined the way people revert to old ways of communicating (or nothing at all), in the absence of technology.

Factors Influencing Communication

Day of the week. As mentioned when discussing productivity, the day of the week that students fasted made a significant difference in the way they chose to communicate. Four interviewees fasted on a weekday, and three on a weekend. Those students during a weekday all reported that the fast was very difficult, because of their busy schedule and hectic campus environment. Those during the weekend fasted on Saturday, and all three students reported that they either stuck with a friend the whole time or just stayed inside their dorm room. There was

no demanding schedule for the weekend, so removing technology from that day's routine "was not as hard as it would've been during the week," commented a female interviewee.

Living Arrangements. Because the Luckyday first-year students live in the same residence community on campus, this largely affected their communication. Six of the seven volunteered that living in a dorm with other students and friends helped them connect more easily when they could not text or call to find friends. One female said she "went down the hall and knocked on their door," to wake up a friend for class. These students said they normally used their phones for an alarm clock, so "thank goodness [she] woke me up!" Another female interviewee took an interesting approach. She said that on the Saturday that she chose to fast, she had nothing better to do than sit in her residence hall and talk to her roommate. She said, "I realized we were more alike than I thought." Without this residence community, many of these students may have had a harder time communicating.

Presence of Others. This factor connects directly with the previous. Even if students did not feel that their living arrangement made a difference in their communication, being surrounded by people did. Five interviewees agreed that being in the presence of a friend or people (in a campus environment) helped prompt face-to-face interaction. Because three of these people said they fasted with a partner, they were given the opportunity to "latch on to a friend for the day." This was a source of automatic interpersonal interaction. Some students said they "didn't feel isolated," because they had people around them to eat lunch with, and could run into people they knew on a college campus. Even if they could not find their usual friend group, one student said she loved talking to anyone, so she just "ate with people [she] didn't know."

Boredom. "I was bored out of my mind," answered a student when asked how the day went for her. This student went looking for people to see, to hang out with, or to eat lunch with.

Out of the five students who mentioned being bored, four of them said they got all their work done early. Then, one student said she "didn't have anything else to do, so [she] just walked around." Boredom often caused students to either find more people to talk to and search for their friends, or caused people to retreat into their room and spend time alone reading or writing. Although not all students who claimed boredom fasted on a weekend, three of the five interviewees did. Not much was going on during the weekend to entertain that boredom, so the students were forced to make a conscious effort to find ways to communicate. If they did not take the initiative, they sat in solitude.

Awareness. Awareness is a factor that has appeared for the third time among students who agreed technology was not present to distract them from everything else. Here, awareness served as a factor that influenced six students' decisions to communicate. One student's perspective was especially interesting. She said that she felt that technology causes us to be "sucked into a cyber world that's not even real. We lose touch with what really matters." After realizing that she was much more aware of the world around her without technology, she made time for herself and for other people during the fast. She even continued to make that effort after the fast was over.

As previously noted, greater awareness was associated with people being more observant and having more meaningful conversations. In realizing that technology could be such a distraction, this interviewee committed to cutting out more time spent during the day on her phone and computer. She, like several other students, agreed that using technology often caused her to experience information overload. The awareness they experienced during the fast was a contributing factor in the way they conducted their conversations and viewed the world. Turkle (2012) says it best in her article "The Flight from Conversation" when she writes, "Walking

through a college library or the campus of a high-tech start-up, one sees the same thing: we are together, but each of us is in our own bubble, furiously connected to keyboards and tiny touch screens." No doubt college students' daily lives are saturated with technology use. One can conclude from this study that when technology is taken away, a student's "bubble" of comfort is stretched, and increased awareness significantly affects their communication.

Planning ahead. Luckyday students were asked by their instructors to prepare in advance for the fast, making sure their day would not conflict with school work submitted through electronic means. Planning ahead was named as an influential factor in the students' communication. Some interviewees mentioned that they made sure to tell their families before the fast began, so that they would not worry what happened to their student when they could not contact them. One female said, "I think my mom had a harder time with it than I did!" In this generation, planning ahead would be crucial to spending a day without technology. Families, friends and roommates expected the ability to contact who they needed at the time, whenever they wanted; they desired immediacy. Without immediacy, these students admitted to worrying about who needed to get in touch with them at the time.

Feelings that Affected Connection

The fasting experience brought with it plenty of emotions, and the interviewees were not hesitant to convey these. In distinguishing the categories of emotions, Creswell's phenomenological approach was implemented once again. The feelings that appeared most common among the students were Frustration, Anxiety, Relief/Freedom and Loneliness/Depression. The majority of the interviewees agreed on all of these emotions. Six of the interviewees felt at least three of these emotions at some point during the fast, and one person reported experiencing all four.

Frustration. This one is simple. If any student felt irritated, impatient, or that their efforts and desires were blocked, they experienced frustration. Some students felt disconnected when they could not find anyone they were looking for, or when they could not use their computer to take notes in class or write a paper. One student admitted, "It was annoying to hand write everything," and, "It was frustrating not having Google to get information." Another interviewee voiced that "it sucked not being able to communicate with people as usual." Frustration came when students were inconvenienced in any way. When the interviewees were inconvenienced, they used these types of words to describe their angst.

Anxiety. Four of the interviewees agreed they experienced some sort of anxiety in the absence of technology. Anxiety came in the form of nervous reflexes or feelings of worry. One female interviewee said she "definitely" felt anxiety and said, "I kept reaching for my phone. It was a reflex to go for it. I kept craving it." Another student said that she felt anxious about being "confined," and "like [she] wanted to break free from solitude." It was evident that students who fasted on the weekend began to feel "stir crazy" without their technology fix. Another student who felt more worry admitted that "it stressed [him] out not being able to get in touch with a person right then…worried that someone would have tried to contact [him]." He said that those feelings did not last all day, but only when he needed to find a friend or ask someone a question. A student also commented that she did not like waiting around without having a way to track down her friends.

Relief/freedom. This is the only positive emotion noted by the interviewees. Almost all of the interviewees (6) indicated feeling relief or freedom at some point in their day. Even though the majority of students conveyed that not having technology was a nuisance, the fast did offer a breath of fresh air. One female said, "I feel like it's exhausting to talk to too many people

in one day (referencing texting and Facebook), so I was relieved when I didn't have it." She said it was "nice" to only have to worry about having face-to-face conversations "with no distraction." More than two students commented that they were "stress" free without their phone on them. This freedom brought a relief of the "obligation," as one student noted, to talk to so many people. Two students said it was a pleasant feeling to experience the "beauty of nature" instead of being distracted. When communicating with technology was no longer an option, they admitted to having one less thing to worry about.

Loneliness/depression. Finally, interviewees characterized their fasting experience with words like "isolation" and "emptiness." Without technology, four interviewees believed they were so disconnected at one time that they felt only a void. One female quoted, "I felt so empty. Like a part of me was missing." When confined to the solitude of one's self without a preoccupation of some sort, many felt an emptiness that approached depression. One student admitted he "felt depressed," and explained, "I like to talk to people…I'm a social person…and I couldn't get in touch with anyone." When they believe they are designed for connection, some persons cannot handle being alone. Another student made the bold statement, "I felt like I was in prison," and she wanted to "break free." She viewed solitude as confinement; a negative concept. According to Marche (2012) in his Atlantic Magazine article "Is Facebook Making Us Lonely?" social networking and media have made humans "more densely networked than ever." He also claims, "In a world consumed by ever more novel modes of socializing, we have less and less actual society. We live in an accelerating contradiction: the more connected we become, the lonelier we are."

In relation to the fast, an absence of technology caused students to feel that they had nowhere to turn for social interaction, especially if they depended on social networking for

interpersonal communication. Then, they experienced loneliness as a result of not being able to find contentment without technology. Marche (2012) says it well: "Loneliness is certainly not something that Facebook or Twitter or any of the lesser forms of social media is doing to us. We are doing it to ourselves."

During the fast, the variety of emotions experienced by all seven students was fascinating; even more interesting was the fact that most of the emotions were negative. However, when asked about their assessment of the technology fast, 100% of interviewees said that it was a positive growth experience. All of the negative comments stemmed from the emotions *during* the fast. However, despite the frustration, anxiety or loneliness, each student was pleased at the end of the day that they "learned so much about [themselves]."

Conclusions

Summary

Through a rigorous data analysis and discussion of the results, I have come to several conclusions. Regarding McCombs's (1972) displacement theory that states, "Participation in one communicative domain takes away from the time and financial resources allocated to the other," the results from this study confirm that displacement did occur in the participants' communication during the fast. The "communicative domain" was technology, which had shown to take away from time spent in non-technological communication. Due to self-reported data that showed "more" or "less" time spent in several communication activities in the absence of technology, it can be concluded that computer-mediated communication had replaced much of the interpersonal communication of Luckyday first-year college students. With this theory applied in reverse, it can also be concluded that many students reverted back to primitive ways of communicating and became more aware in the absence of technology. The factors and feelings

discussed, as causes and effects of communication during the technology fast, present the "why" for displacement theory. The themes noted in the discussion give rhyme and reason to the shift that occurred in first-year students' interpersonal communication. While technology has defined today's society and created a more efficient and "connected" world, it has also caused a decrease in our time spent interacting interpersonally and individually.

Implications for Education

The Luckyday Program at the University of Southern Mississippi has utilized the technology fast as a teaching tool in their course curriculum for the last two years. This class has been a key component to Luckyday students' first semester education, helping them to realize their strengths and weaknesses as a scholar. Already, the coordinators of the program have practically applied the fast to the everyday lives of college students. Students typically learn how much they depend on technology and how little they are aware of the people and things around them. Thus, the results and discussion of this study can enrich the knowledge of the fast's effect on first-year students. The study revealed just how much students' awareness and communication are affected in one 24-hour period, through various activities, factors and feelings that have been recorded from this research.

In order to make the technology fast even more useful, the Luckyday Program might do a few things. The certain communication factors listed in the interview results may suggest writing prompts for journaling during or after the fast. One option may be for the students to keep an hour-by-hour log of their fast. This will help to measure just how influential certain factors are in a student's choice to communicate in specific situations throughout the day. Also, the fast may be more effectively used as an educational tool if the students were only allowed to fast during a weekday. Those students who had to function in a normal school day without their computers or

cell phones experienced much more change, struggle and growth from the experience. These students were forced to cope in their busy and academic routine without something that is so central to their everyday lives. Those who experienced a weekend fast were less likely to have opinions about how the fast impacted their day. If they wished, they simply did not have to do anything on a Saturday or Sunday, which defeated the purpose of the fast as an educational experience.

Also, it could be an interesting study to have a group of students fast for an extended period of time and write a longer reflection paper. One or more students could have the potential to present in front of the Luckyday students as part of a seminar for the program. Not only would these students be challenged even further, but they would also have the chance to share a valuable and teachable experience with their peers. The technology fast elicited an overall positive response from students, teaching them more about themselves and about the technological environment they inhabit. When asked how the fast impacted them the most, an overwhelming majority of the students answered that they "realized how dependent" they were on technology. This experience was a powerful reflection opportunity for the participants, and they certainly gained insight about how technology affects the world around them.

Limitations

Two major limitations occurred within this research: the ambiguity of two survey questions and the sample of participants. First, questions 2 and 5 in the last section of the survey proved to be ambiguous. Each of these asked whether the students "spent fewer hours" alone or reading hard copy text. The rest of the questions ask if the students "spent more" time communicating. The wording of these questions was flipped in order to keep the participants' attention and accuracy of responses. While the participants did not have any trouble

understanding the question, deciphering the answers became complicated. For example, if a participant Agreed or Strongly Agreed to spending fewer hours alone, there is no guarantee that they did or did not spend *more* hours alone. The way the questions were asked limited the direct answer that the study needed. If the two questions had been fashioned like the rest, asking if they spent *more* hours alone or reading hard copy text, the survey results would have been more direct and accurate. Also, this ambiguity could have been avoided if the survey had been piloted to ensure that the questions were clearly stated. Although each question was carefully crafted by the researcher and advisor, a screening of the questions by an outside party could have improved the clarity.

Another limitation involves the participants. The participant sample only included scholars from the Luckyday program, who are typically middle-to-upper class citizens of the state of Mississippi. These students are also the same age, and they belong to "Generation Next," which was born into technology. It would have been interesting to study a sample of students from another economic class or age group, in order to compare technology and communication habits. Another sample could have been taken of older people who did not grow up with cell phone or computer access, in order to examine how age affects communication habits and reactions to a technology fast. These changes would have revealed a difference, if any, between age groups or socioeconomic status and perceptions of technology communication.

Appendix A: COMMUNICATION INVENTORY

1.	Gender:	Male	Female
2.	Do you own a cell phone?	Yes	No
	If so, does it have internet capability?	Yes	No
3.	Do you own a laptop or PC?	Yes	No
4.	Did you complete one full 24-hour technology fast?	Yes	No

*To the best of your ability, estimate your usual communication activity in a **typical day**:*

1. Number of face-to-face conversations with friends and acquaintances: _____
2. Number of hours spent alone: _____
3. Number of conversations with strangers: _____
4. Number of hours spend reading hard copy text: _____
5. Number of hours hand writing text (e.g. taking notes, writing letters): _____

*To the best of your ability, estimate your normal, **daily** technology use for each of the following:*

1. Number of phone conversations: _____
2. Number of hours spent on the internet (e.g. Facebook, email, research): _____
3. Number of hours spent watching television: _____
4. Number of hours spent listening to the radio or other music: _____
5. Number of text messages received and sent: _____
6. Number of hours spent on a word processing program: _____

7. Other: _____ _____

Please circle the answer below each question that most accurately describes your recollection of the technology fast.

1. **During the technology fast I had more face to face conversations with friends and acquaintances than I normally have:**

   Strongly Disagree Disagree No opinion Agree Strongly Agree

2. **During the technology fast I spent less time alone than I normally do:**

   Strongly Disagree Disagree No opinion Agree Strongly Agree

3. **During the technology fast I had more conversations with strangers than I normally have:**

   Strongly Disagree Disagree No opinion Agree Strongly Agree

4. **During the technology fast I ate more snack food than I normally do:**

   Strongly Disagree Disagree No opinion Agree Strongly Agree

5. **During the technology fast I spent less hours reading hard copy text:**

   Strongly Disagree Disagree No opinion Agree Strongly Agree

6. **During the technology fast I was more aware of nature than I normally am:**

   Strongly Disagree Disagree No opinion Agree Strongly Agree

7. **During the technology fast I spent more hours hand writing text (e.g. taking notes, writing letters):**

   Strongly Disagree Disagree No opinion Agree Strongly Agree

8. **Are there any other modes of communication that you found yourself using more or less during the technology fast? Explain.** _____
   _____
   _____

Would you be willing to participate in a short, 20-minute interview about your technology fast experience to further research for this study? Yes No

If so, please provide your contact information below:

Name: _____ Email: _____ Phone: _____

Appendix B: INTERVIEW QUESTIONS

1. Did you fast during a weekday or weekend?
2. Describe what it was like for you during the technology fast?
    a. Walk me through your day chronologically.
    b. Was the experience what you expected it would be?
3. What kinds of problems or crises, if any, did you run into during the technology fast? Pick a few and describe them one at a time, as best you can.
4. Can you think of ways you interacted with others during the technology fast that were different from how you normally would have communicated?
5. How did the technology fast affect your feelings of being connected with the world around you?
6. Clarification of Survey Questions:
    a. Did you spend MORE time alone?
    b. Did you spend MORE time reading hard copy text?
7. Was the fast a positive or negative experience for you?
8. How did the fast impact you the most?

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