

Spring 5-9-2015

# The Mobile Phone and You: Human Interaction and Integration with Mobile Technology

Ryan C. Miller

Follow this and additional works at: [https://scholarworks.gsu.edu/anthro\\_theses](https://scholarworks.gsu.edu/anthro_theses)

---

## Recommended Citation

Miller, Ryan C., "The Mobile Phone and You: Human Interaction and Integration with Mobile Technology." Thesis, Georgia State University, 2015.

[https://scholarworks.gsu.edu/anthro\\_theses/96](https://scholarworks.gsu.edu/anthro_theses/96)

This Thesis is brought to you for free and open access by the Department of Anthropology at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Anthropology Theses by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact [scholarworks@gsu.edu](mailto:scholarworks@gsu.edu).

THE MOBILE PHONE AND YOU:  
HUMAN INTERACTION AND INTEGRATION WITH MOBILE TECHNOLOGY

by

RYAN MILLER

Under the Direction of Kathryn A. Kozaitis, PhD

ABSTRACT

What is the impact of mobile phones on those who use them? Does the use of mobile phones affect sociocultural systems when they are introduced? With the prevalence of the mobile phone in society today it is imperative that mobile phone use is studied. Through the use of ethnography, I have studied students at Georgia State University in order to understand the mobile phones influence on this particular culture. I have found that my participants have been changed through use of this device as it has become a part of themselves, adding functionality to users while splitting their focus between the digital world mediated by the phone and physical reality. I found that participant's sentiments of their phones were conflicting. They praised their device while remaining wary about its effects on them and others.

INDEX WORDS: Ethnography, Mobile Phone, ICT, Communication, Cell Phone, Culture,  
Anthropology, Digital

THE MOBILE PHONE AND YOU:  
HUMAN INTERACTION AND INTEGRATION WITH MOBILE TECHNOLOGY

by

RYAN MILLER

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2015

Copyright by  
Ryan Christopher Miller  
2015

THE MOBILE PHONE AND YOU:  
HUMAN INTERACTION AND INTEGRATION WITH MOBILE TECHNOLOGY

by

RYAN MILLER

Committee Chair: Kathryn A. Kozaitis

Committee: Faidra Papavasiliou

Jennifer Patico

Electronic Version Approved:

Office of Graduate Studies

College of Arts and Sciences

Georgia State University

May 2015

## **DEDICATION**

I want to thank my family for believing in me and helping me throughout the process of obtaining my graduate degree. You will never know how much your words of encouragement and support you have given has aided me in getting this far. Thank you so much.

## TABLE OF CONTENTS

<b>LIST OF FIGURES .....</b>	<b>VII</b>
<b>1 Introduction.....</b>	<b>1</b>
<b>1.1 My Study .....</b>	<b>3</b>
<b>1.2 The Mobile Phone.....</b>	<b>4</b>
<b>2 Past Research .....</b>	<b>7</b>
<b>2.1 Theory.....</b>	<b>7</b>
<b>2.2 Previous Literature.....</b>	<b>10</b>
<b>2.2.1 Communication.....</b>	<b>10</b>
<b>2.2.2 Information .....</b>	<b>14</b>
<b>2.2.3 Work.....</b>	<b>17</b>
<b>2.2.4 Space.....</b>	<b>20</b>
<b>2.2.5 Attachment.....</b>	<b>22</b>
<b>2.2.6 Perception.....</b>	<b>24</b>
<b>2.3 My Contribution .....</b>	<b>27</b>
<b>3 Methodology .....</b>	<b>30</b>
<b>3.1 Where Did the Study Take Place? .....</b>	<b>31</b>
<b>3.2 Who Participated?.....</b>	<b>34</b>
<b>3.3 What Methods Were Used? .....</b>	<b>37</b>
<b>3.3.1 Interviews.....</b>	<b>39</b>
<b>3.3.2 Participant Observation .....</b>	<b>40</b>
<b>3.3.3 Unobtrusive Observation .....</b>	<b>41</b>
<b>3.3.4 Data Analysis.....</b>	<b>43</b>
<b>4 Ethnography.....</b>	<b>44</b>
<b>4.1 Adoption .....</b>	<b>44</b>

<b>4.2</b>	<b>Connectivity .....</b>	<b>49</b>
	<b>4.2.1</b> <i>Emergency</i> .....	<b>50</b>
	<b>4.2.2</b> <i>Communication</i> .....	<b>55</b>
	<b>4.2.3</b> <i>Always there</i> .....	<b>65</b>
	<b>4.2.4</b> <i>Disconnect</i> .....	<b>69</b>
<b>4.3</b>	<b>Reliance.....</b>	<b>71</b>
	<b>4.3.1</b> <i>Necessity</i> .....	<b>72</b>
	<b>4.3.2</b> <i>Replacement</i> .....	<b>74</b>
	<b>4.3.3</b> <i>GPS</i> .....	<b>78</b>
	<b>4.3.4</b> <i>Attachment</i> .....	<b>80</b>
<b>4.4</b>	<b>Distraction .....</b>	<b>84</b>
	<b>4.4.1</b> <i>“Killing Time”</i> .....	<b>84</b>
	<b>4.4.2</b> <i>Focus</i> .....	<b>86</b>
<b>4.5</b>	<b>Information .....</b>	<b>95</b>
	<b>4.5.1</b> <i>“Just Look It Up”</i> .....	<b>95</b>
<b>5</b>	<b>Discussion .....</b>	<b>98</b>
	<b>5.1</b> <b>Human +</b> .....	<b>98</b>
	<b>5.2</b> <b>Virtual Reality</b> .....	<b>101</b>
	<b>5.3</b> <b>Complexity of Phone Usage</b> .....	<b>105</b>
<b>6</b>	<b>In Conclusion .....</b>	<b>109</b>
	<b>6.1</b> <b>Autoethnography</b> .....	<b>113</b>
	<b>6.2</b> <b>Applications</b> .....	<b>114</b>
	<b>6.3</b> <b>Limitations</b> .....	<b>115</b>
	<b>6.4</b> <b>Future Research</b> .....	<b>115</b>
	<b>WORKS CITED</b> .....	<b>117</b>



**LIST OF FIGURES**

Figure 1: GSU Courtyard.....	31
Figure 2: Student Center Cafeteria .....	33
Figure 3: Student Center Charging Station.....	33
Figure 4: Student Center Couch Area.....	34
Figure 5: Adam Brought His Old Phone to His Interview and Placed .....	47
Figure 6: Mobile Phone Wanted Poster .....	83
Figure 7: Sign at the University Health Center.....	90
Figure 8: Sign at the Library Check-Out Desk Asking.....	90
Figure 9: Taking a Picture of Stewarts' Phone Showing a Picture of Stewart on His Phone While Watching a Video on His Tablet.....	94

## 1 Introduction

If you are reading this, there is a good chance that you have a mobile phone. Even if you do not, it is almost impossible to go to any public place in the United States and not see at least one mobile phone. How did this technology become so pervasive? How and why has the use of mobile phones become the norm? People's relationship with their mobile phone is like a partnership, both interacting with one another to accomplish the goals of the user. With today's smartphones, the device can even act independently of the user to provide updated information from its internet connection. The mobile phone can be a sort of virtual butler, taking cues from the personal digital assistants (PDA) of the past. As one of my participants said in reference to her phone, "She is beautiful. She is an iPhone 4s and I have a personal assistant named Siri" (Siri is a voice command program on iPhones).

Through the use of ethnography, I have embarked upon an expedition into the culture of Georgia State University students in order to understand how this socio-cultural group has been shaped by use of the mobile phone. I set out to research this group in order to explore just what mobile phones mean to their users and how these students incorporate these devices into their everyday life. My original assumption was that ownership and usage of a mobile phone has a significant impact on these students and that these devices have become ingrained into their person. The advanced functions of today's newest mobile phones have aided their users in profound ways to the point where participants have described their mobile phone as 'another limb' and as 'a part of themselves.'

Mobile phones allow their users to stay in touch with people both near and far, maintaining the relationships they have with family, friends, and acquaintances wherever they

may be (provided both parties have a good enough reception). The connection to others that the mobile phones facilitate can effectively remove a user's isolation in the world (Fortunati 2005a). The degree of accessibility that the mobile device provides may generate anxiety among users who feel that they must stay in touch with others. The ubiquity of an always-on connection, and the norm of having a mobile phone assures users that others are equally integrated and accessible.

As a result of this connectivity and the enhanced functionality of newer phones (adding new functions through the use of downloaded applications), participants tend to feel attached to their devices and rely on them for a number of different tasks. The theme of reliance has appeared in both the previous literature and throughout my own ethnography, especially as a mobile phone is taken away from the user (Park 2005; Reagan & Lee 2007; Vincent 2005). The term "addiction" has been brought up through these studies as it seems that the mobile phone causes a yearning for both its communicative and non-communicative abilities throughout one's life of individuals across the world. Being out of touch when mobiles are the norm may also attribute to this effect.

Attachment to a mobile phone may also hinder the attention of users in their everyday life. Distraction via the use of a mobile phone has caused trouble with users' focus, keeping them from accomplishing tasks they set out to do. Although the mobile phone may aid users in the completion of tasks such as its use as a calculator, GPS, or providing information with internet search capabilities, the plethora of such uses may distract from the very task for which the mobile was intended to be used. The third use, internet searches, is reportedly quite useful for participants in acquiring information on a variety of subjects both academic and of personal interest. Use of this function as a sort of personal minicomputer has aided my participants as well

as others (Echeverría et al 2011; Jackson 2013; Katz 2005) in being more informed individuals (though not all information found on the internet can be accurate).

Overall, the mobile phone appears to play an important role in the lives of my study population. Its prevalence throughout our world can be indicative of just how useful these devices can be. The usefulness of the mobile phone may even be a hindrance to individuals as they have a difficult time being without it. Through this thesis I argue that the mobile phone and you are intertwined. They enable us to be more than just human, but perhaps humans +. Whether this is a positive or negative occurrence remains to be seen, and it is perhaps up to you, the reader, to determine this for yourself.

## **1.1 My Study**

To understand the impact of mobile phones on those that use them, I decided to conduct an ethnographic study of students aged 18-30 who were attending Georgia State University. I conducted semi-structured interviews with fourteen students in this age group, asking them questions about their use of their mobile phone and how they perceived their use in their everyday life. Through the use of participant and unobtrusive observation I was able to gather more data on mobile phone use, how people would interact with their mobile phone, and how phone users spoke about them during structured interviews and in more informal conversations. By analyzing the content of interviews and incorporating observational data I was able to better comprehend students' relationship with their phone.

## 1.2 The Mobile Phone

A mobile phone exactly what it sounds like: a telephone that is mobile. It is still important to distinguish these phones from similar technologies such as the walkie-talkie and radio messaging. Up until quite recently the mobile phone was connected to particular towers located in divided geographical areas called cells where dedicated transmission towers handled all calls in that cell, hence the name “cell phone” (Green & Haddon 2009). The mobile phone has actually gone through four different generations to get to the phones we know and use today, and even before then there were certain precursors that led to the development of the first cell phone.

The first recorded use of a mobile telephone was during World War II in the 1940's. Telephones were built into certain vehicles used by the military that were able to connect to landlines as well as other vehicle phones (Green & Haddon 2009). These phones actually worked similarly to walkie-talkies in that they had to have a button be manually pressed down to talk, and released to listen. These car phones proceeded to extend into the public sector, utilized mainly by taxi services, police, firefighters, and other emergency services. By 1952 there were 350,000 private two-way radios in use, mainly in cars (Goggin 2006). These phones were bulky compared to the phones of today, often having to fit into a large briefcase. They used considerable battery power and were often connected to a car battery to accommodate this power use. With the development of miniaturized phone parts, a smaller mobile phone was created, mainly facilitated by more efficient energy use.

In 1973, the first handheld mobile phone, the DynaTAC 8000X, was developed by Motorola and Martin Cooper specifically. The prototype weighed 1 kilogram, offered a talk time of just 30 minutes, and took 10 hours to re-charge (Green & Haddon 2009). This first mobile

phone device has been fondly remembered as the “brick phone” (Green & Haddon 2009:20). In an interview with BBC, Cooper recounted his experience with developing this new phone:

We believed people didn't want to talk to cars and that people wanted to talk to other people and the only way we at Motorola, this little company, could prove this to the world was to actually show we could build a cellular telephone, a personal telephone. Something that would represent an individual so you could assign a number not to a place, not to a desk, not to a home but to a person (Shiels 2003).

This development pushed forward the concept of the personalized phones we have today, further evolving throughout the next few decades.

In 1979, cellular networks for commercial mobile phone services were established first in Japan (Green & Haddon 2009). This structure around mobile phones led to the first generation of cell phones (1G). The second generation (2G) was defined by the digitalization of telecom networks starting in the 1980s. Mobile phones at this time had features we have in our modern phones including an address book, register of received calls, an alarm clock, a calendar, a calculator, ringtones, a camera, and games. SMS, or text messaging, was also developed in this generation (Goggin 2006). The first machine-generated SMS message was sent in the UK in 1992, followed by the first person-to-person SMS sent in Finland in 1993 (CTV News 2012).

In 1994, during the second generation was when the first smartphone, the IBM Simon, was introduced (Sager 2012). This phone was a mobile phone in the style of a PDA (personal digital assistant) and had pager and fax machine capabilities. A smartphone is distinguishable from other mobile phones in that it has more characteristics of a personal computer: having its own operating system and can access the internet (Chen 2011).

The third generation (3G) of mobile phones was developed in 2001 by NTT (Nippon Telegraph and Telephone) in Japan (Green & Haddon 2009). The primary change was the mobile phone's use of packet switching rather than circuit switching for data transmission.

Circuit switching had been the standard for all telecommunications before this point and refers to the connection made between two parties on a call where a telephone carrier would connect the two phones like an electrical circuit (Valdes & Roos N.d.). Packet switching, instead of creating a connected circuit between callers, creates a packet of data filled with everything sent through a phone to be transferred over to the receiver (Wilson N.d.). The key difference between the two is that circuit switching involves creating a constant connection between caller and receiver while packet switching creates bundles of data to be shipped back and forth between the two.

The current generation (4G) of mobile phone networks began in 2009, with the LTE (Long Term Evolution) standard developed by TelioSonera in Scandinavia (Goldstein\_2009). This generation of networks eliminated circuit switching and instead uses an all-IP (internet protocol) standard and treats voice calls like any other type of streaming audio media (such as Youtube and Pandora radio) (Chandler, Nathan N.d.)

In the past decade or so smartphones have dominated the marketplace, almost becoming the only type of mobile phone you can get. One of my participants, Adam, mentioned in his interview that he has “a lot of friends in the phone industry like selling and supplying and they were like ‘there are no good flip phones. It’s gonna crash [i.e. break] on you.’ They’re just- no one buys them so they’re shitty so you might as well get a smartphone.” These devices access both 3G and 4G networks, making them able to connect to the most recent standards.

One smartphone in particular I will give special mention to, considering ten of my fourteen participants owned one, is the Apple iPhone. A participant, Michelle, had actually gone out of her way to mention that her smartphone was not an iPhone in our interview. The presence of this device is quite extensive in comparison to other models. When the first iPhone debuted in 2007 it was marketed as an amalgamation of the previously released iPod (Apples MP3 player),

an internet communicator and phone wrapped into one device. The iPhone and other smartphones since its introduction have also included the use of applications (apps) to provide multitudes of other capabilities including a flashlight, to-do list, voice recorder, and compass to name a few. Presently there have been six generations of iPhones that have been released as well as updated models of those generations usually released a year later (iPhone 5 vs iPhone 5s). I argue that this device has influenced the development of the previous eight years of mobile phones and may continue to do so in years to come.

## **2 Past Research**

### **2.1 Theory**

Several theoretical frameworks have assisted me in my research and provided a lens with which to view my findings, briefly described below. Globalization is both a causal factor and an outcome of mobile technology. Mobile phone use has contributed to the processes of time-space distancing and time-space compression (Inda & Rosaldo 2008). Universal adoption of mobile phones is also indicative of material culture and mass consumption, and the relationship of these to a sense of self. Actor-network theory (ANT) illuminates the relationship we have with our mobile phones, and our interactions with these lifeless beings. Finally, in order to frame the use of mobile phones as an influence on our social systems it is important to discuss the social construction of technology (SCOT).

Globalization is characterized by the social connections between distant locations and the chain reactions that cause an event in one part of the world to influence all connected locations (Inda & Rosaldo 2008). Thus, an innovation such as the mobile phone spreads across the world



where its introduction has changed the social systems in which it is introduced. Globalization has been described as a time-space compression and time-space distancing (Inda & Rosaldo 2008). Both phenomena influence our perception of time-space through webs of interconnection which compresses time-space, making the world feel smaller and distances shorter. Time-space compression refers to the increased speed of economic and social processes because of the way in which these processes operate today (Inda & Rosaldo 2008). The distancing of time-space makes the world smaller through the connection between absence and presence. Physical location is increasingly inconsequential due to enhanced connections over space and time (Inda & Rosaldo 2008). These processes have everything to do with the technologies that have been developed over the past few decades. Innovations in transportation, such as the cargo airplane, as well as in information and communication, such as the mobile phone and personal computer, have made this compression and distancing possible. Globalization treats the world as if it were a huge melting pot with different cultures intertwining, contributing to cultural dynamism. This implies that my particular area of study is affected by other cultures, both locally and globally. It is for this reason that I argue that my study is of great importance, as I am taking a sort of snap shot of this particular socio-cultural phenomenon at a particular moment in time.

Theory based on material culture and mass consumption has helped me to further understand the impact of these devices on my population. Anthropologist Daniel Miller, in his explanation of material culture and mass consumption argues that the things that we purchase and use affect us and our socio-cultural systems in ways that we possibly do not realize. He states:

Mass goods represent culture, not because they are merely there as the environment within which we operate, but because they are an integral part of that process of objectification by which we create ourselves as an industrial society; our identities, our social affiliations, our lived everyday practices. (1987:215)

Miller describes material items and their respective owners as being inseparable from one another in that a person's identity is defined by the selection of the item, and in ownership and use, it becomes familiar and contextualized in their life (Miller 1987). Applying this to the mobile phone as a material good has helped me to understand the relationship GSU users have with their phone. Through use of a mobile phone we help to define it while it defines us. How we use our mobile phone (how we consume it) affects its influence on us, we are not influenced by the mobile phone in itself. With the extensive customization that smartphones provide by allowing the user to change numerous aspects of its display and functionality, no two phones are alike. Therefore, each mobile phone becomes a reflection of its owner.

Actor-network theory (ANT) has helped me to understand the interactions between mobile phones and their users, and the relationships that form between the two. According to Bruno Latour and his colleagues, ANT "investigate[s] how certain entities (called "actants") become related to other actants, and how in certain cases, this process leads to the establishment of relatively durable and extended actor-networks" (Blok & Jensen 2011:167). It is sometimes referred to as "material semiotics" because in ANT, actors are defined by their relationships to other actors (Blok & Jensen 2011:167). Bruno Latour argues that *both* the puppet and puppeteers (mobile phones and their users) are pulling the strings (Oenen 2011). The relationship between people and the technology that they use is sort of a give and take, with humans affecting their technology but their technology is affecting them as well. In this way, the mobile phone as an actor is defined by its relationship to their users as the mobile phone is used in the way the user intends, becoming what the user envisions it to be. The mobile phone in itself is just a tool, but is given meaning by the people that use them in order to accomplish their goals. It can become an

entertainment system, a direct line to contact loved ones, a business tool, and any other combination of roles that fit the needs and desires of the user. How it fits into the lives of users can also be extended into how these devices fit into the whole of the users' socio-cultural system.

The social construction of technology (SCOT) is a theoretical framework that is helpful in determining how mobile phones, and other pieces of technology, are conceptualized by users and how users' reflections on their technology affect its future development (Bijker, Hughes, & Pinch 1989). This theory is centered on the shared meaning of a technology among those that use it. When a certain technology is first introduced to consumers, their ideas of what it is and what it can do strongly affect future iterations of that technology as the best features (as determined by social groups) are expanded upon (Pinch 1996). The characteristics of a technology that are praised most are heightened and become more finely attuned to the needs of a particular social group. This is a particularly interesting theory for my study since analyzing the effects that my participants' mobile phone has on them can be indicative of certain design specifications that promote the features present on their current phones. Since my participants use their phones often, there is a possibility that the aspects they desired were anticipated from previous iterations to become more usable and more likable.

## **2.2 Previous Literature**

### ***2.2.1 Communication***

The mobile phone is a phone, first and foremost. This device is the newest iteration of the telephone; its primary ability is to be used wirelessly and travel with the user (Levinson 2006).

Through the mobile phone, we are able to communicate with others either synchronously (voice) or asynchronously (text and e-mail). Now that we have the mobile phone, we can interact with

others across regions and countries around the world. What we can infer from this access is that we are more connected to others than we have ever been before (Levinson 2006). The ability to communicate no matter where one may be has changed the mobile phone users' interpersonal relationships (St. Clair 2011; Green & Singleton 2009; Katz & Sugiyama 2005; Ito 2005; Horst & Miller 2005; Wei 2006; Gordon 2006; de Souza e Silva 2006; Levinson 2006). Staying in touch with friends and family, whether nearby or far away has created a more connected social network while at the same time it has created more distance between the mobile phone user and those in their proximate vicinity. The mobile phone can create a barrier between the user and everyone around them through the focus paid to the device and not to ones' surroundings (Turkle 2011, Ling & Stald 2010). The possible positive or negative outcomes of this change in communication must be studied further to understand the mobile phone's impact on humanity.

Social scientists have pointed out that the mobile phone can assist in communication between individuals who are unable to be together (Ito 2005), as well as help set up meetings between individuals (St. Clair 2011; Green & Singleton 2009; Katz 2005). The mobile phone is a connective device that helps the user keep in touch with those they don't see often, and helps them maintain their social network (Horst & Miller 2005; Wei 2006). Evidence also suggests that the mobile phone often replaces physically present social contact (Gordon 2006, de Souza e Silva 2006, Katz 2005, St. Clair 2011, Ito 2005). Accordingly, it causes increased pressure on individuals to always be available to communicate with those who may be seeking contact with them (Levinson 2006; Ito 2005; Gordon 2006; Green & Singleton 2009).

The ethnography of mobile phone usage in Jamaica conducted by Heather Horst and Daniel Miller demonstrates that mobile phones help maintain social networks among urban and rural Jamaicans (Horst & Miller 2005). The researchers lived with low-income families in

Jamaica, practicing participant-observation, as well as distributing a household survey to 100 households, in the pursuit of understanding the mobile phone's impact in that area. Their research indicates that these mobile phone users typically had extensive lists of contacts on their phone (around 100 for some). This social network represented connections that were used, for example, for sexual relations, child rearing, and income generation. Users practiced "link-up" which refers to the sending of superficial checking-up messages such as: "Hi, how is everything?" in order to maintain connections with others (Horst & Miller 2005:760). "Link-up" can be used as a subsistence strategy through utilizing these maintained connections for financial assistance (Horst & Miller 2005).

There is also the phenomenon of "hyper-coordination" (Katz 2005:172) in which people are able to create last minute plans and meet with each other in person through constant communication enabled by the mobile phone or other near-instantaneous virtual mediums such as Facebook. It has been argued that the concept of "being late" may disappear altogether due to this practice since meeting times can change on the fly, making meeting times quite flexible (Katz 2005). This may also lead individuals to not bother planning events ahead of time as mobile phone users hesitate to make definite plans in case a seemingly better option arises (St. Clair 2011). The persistent connectivity utilized to keep this ongoing coordination is demonstrated through Eileen Green and Carrie Singleton's qualitative study of friendship relations between young Pakistani-British men and women. Research participants in focus groups discussed coordinating daily activities, such as places and times to meet, using mobile phones (Green & Singleton 2009).

The focus group discussions conducted by Green and Singleton demonstrated that the persistent connectivity through access to a mobile phone also resulted in feeling that

participation in persistent communication was a necessity. Participants expressed feeling pressured to participate in networks of mobile connectivity with friends and family through a fear of being sanctioned by other group members. Non-reciprocation of incoming communication through mobile phones evoked anxiety and concern for the safety of the non-contactable person (Green & Singleton 2009). Being unreachable or responding to incoming messages in a tardy manner can label the non-responder inconsiderate and "...on occasions it is considered antisocial simply not to have a [mobile] phone and be out of contact" (Gordon 2006:55). Paul Levinson added that "Being on call, being available twenty-four hours a day, seven days a week, having to explain why we don't want to talk, is probably the single biggest universal problem created by the [mobile] phone." (Levinson 2006:15). Persistent connectivity then becomes a blessing and a curse for the mobile phone user. While an individual may thank the mobile phone for allowing contact with others in times of struggle or loneliness, that individual also feels they need to be contactable for others to the point where they are chastised if they are not. The mobile phone can be considered a double edged sword.

An ethnographic study of Japanese high school and college students near Tokyo, Japan shows just how much the mobile phone can assist in social relationships with others (Ito 2005). Twenty-four participants were interviewed about their mobile phone use in 2000 and 2003 and asked to record their texts, voice calls, and their internet use over a period of two days. Ito found that the participants spent time with each other only through their mobile phone. Physical presence was avoided due to the participants' living arrangements as most students lived with their parents and usually shared a room with family members. Not wanting to bother family members with company, rude talk, or being too loud, these students attempted to create a private space for contact through mobile phone communication (Ito 2005).

This study lends itself to the argument that the mobile phone is competing with physical, face-to-face, communication. While in the physical presence of others, mobile phone use can be seen as antisocial or rude as attention is paid more to the phone than the people around the user (Katz 2005). As Scelfo argues, “There’s something that’s so engrossing about the kind of interactions people have with [mobile phone] screens that they wall out the world” (Scelfo 2010:D1). Walling off one’s self from others who are physically present has led researchers to question if we are becoming incapable of face-to-face communication (St. Clair 2011). It is perhaps more accurate to say “that social connectedness has changed rather than declined.” (Jervis 1998:128).

### **2.2.2 Information**

In its more recent iterations, the mobile phone has become an informational device as well as a communicative one. The increased ease and efficiency of access to the Internet on mobile phones now allows mobile phone users to carry a sort of mini-computer with them wherever they may be. Mobile phones may have changed how we become informed as well as how we are educated (Reagan & Lee 2007). Personal computers and tablet PCs, in addition to mobile phones, may allow for more informal (autodidactic) learning outside of conventional classroom settings, and are steadily being incorporated into the classroom to promote formal learning as well (St. Clair 2011; Levinson 2006; Reagan & Lee 2007; Echeverría et al 2011; El-Gayar with Moran & Hawkes 2011; Katz 2005).

Incorporating mobile phones and other information and communication technologies (ICTs) in the classroom has become more popular, as rates of ownership and use of ICTs has increased in recent years (Jackson 2012). What is the effect on education when classrooms are

filled with information and communication technologies owned by the students and teachers? Three studies analyze the incorporation of ICTs in classrooms in California, in the Midwestern United States, and in Santiago, Chile (Jackson 2012; El-Gayar with Moran & Hawkes 2011; Echeverría et al 2011). The latter two studies were assessments of formally introduced ICTs in the classroom while the Californian study was more focused on informal use in classrooms.

Proactive programs to incorporate mobile phones and tablet PC's into formal education classrooms have been assessed by social scientists. In the Midwestern United States a public university implemented a tablet PC computing initiative where all students at the university were given their own tablet for use in note taking (El-Gayar with Moran & Hawkes 2011). A survey was conducted of 360 students enrolled in courses in business and information systems to assess performance expectancy, effort expectancy, social influence, facilitating conditions, behavioral intent, and usage in regards to their tablets. The results indicated that acceptance and utilization of this new technology in the students' studies were most influenced by individual attitudes toward the technology itself. The researchers recommend that programs to implement information and communication technologies into formal classrooms should take students' attitudes into account for the highest rate of use (El-Gayar with Moran & Hawkes 2011).

In Chile, a similar program was introduced to a public secondary school in which mobile phones were distributed to ninth-grade students to assess the mobile phones ability to assist in collaboration between students (Echeverría et al 2011). The Students were assessed in this collaborative project (physics quizzes) through four main attributes: learnability, efficiency, memorability, and satisfaction with their mobile phones. Echeverria found that the interface of the phone was easily learned, especially since students had owned and operated a mobile phone before the study took place (Echeverría et al 2011). They also compared their mobile phone use



to the use of PDAs in the same activity. Mobile phone users were less efficient than their PDA user counterparts, but this was likely due to the processing limitations of the mobile phones and not the limits in interactions between students and their mobile phones (Echeverría et al 2011).

Lorraine Jackson evaluated informal learning and other uses of the mobile phone in the classroom (Jackson 2013). A questionnaire given out to 102 undergraduate students enrolled in Communication Studies courses at California Polytechnic State University was used to assess students' ICT use during lectures (Jackson 2013). The survey covered their technology use, websites visited during class, perceptions and practices concerning mobile devices, awareness of cheating on tests, perceptions of effective and ineffective class policies, and prompted the students to provide recommendations to educators on ICT use (Jackson 2013). Jackson found that mobile phones were viewed as mostly a distraction by the majority of students while laptops and tablets were viewed as helpful learning tools (Jackson 2013). Another major finding was the students' desire for professors to set up clear rules for use of their ICTs instead of outright banning them (Jackson 2013). The distracting aspect of the mobile phone is an interesting finding. Ninety percent of those who owned a mobile phone admitted to using the device during class time and professors have been observed using their mobile phone during class as well (Jackson 2013; Katz 2005).

Increased Internet use through use of a mobile phone has caused some concern over the functionality leading toward a less knowledgeable society. Michael St. Clair argues that the shortening of attention span, insufficient training in sustained mental effort, and the expansion of new ways to obtain information caused by increased Internet use, has led to increases in knowledge of useless factoids, a misinformed public, and a rise in infotainment (St. Clair 2011). In regard to a shortening attention span due to Internet use, there are claims that we now scan

webpages and informational sources instead of reading everything and assessing the information (Krug 2006). This leads to a change in information gathering, as opposed to gaining knowledge, and retention where it is not “so much about having information as it is about knowing how to get it.” (Cowen 2009:54). It is also important to evaluate such information and check its legitimacy as there is equal access from any user to upload whatever information they wish to the internet, even if it is not verified. Education and information gathering in general via the mobile phone can be helpful for quick information from trusted sources. At the same time, it may be difficult to formally learn through the phone as the options available to the user can be distracting. The choice between grabbing your phone to study or to play a game instead can be a difficult one.

### **2.2.3 Work**

As the mobile phone has been introduced into every aspect of users’ daily life it is important to understand how this device has affected their work. The mobile phone may greatly benefit or hinder the way people work. Having a ubiquitous device on themselves means that they can be constantly connected to their jobs (St. Clair 2011). While this technology may assist users in their work, it also means that they are almost always at work. Ubiquitous communication can mean ubiquitous work (St. Clair 2011).

In Morocco, the mobile phone has become an integral tool in the work of urban physical laborers (Ilahiane & Sherry 2009). Plumbers, carpenters, electricians, tilers, maids, and construction workers use the mobile phone to improve their economic standing by increasing business contacts as well as finding potential business partners, customers, and suppliers. These findings were gathered through semi-structured interviews with 26 individuals participating in

one or more of the occupations described above. The mobile phone allows these individuals to respond rapidly to job opportunities, lowering the cost and risk of finding work. According to Ilahiane:

Mobile phones enable users to obtain, exchange, and manipulate information. Increasingly, users are enabled by mobile phones to focus, search, and extract useful and up-to-date market information from social and business networks. Users are also able to make tentative decisions much easier than before, and are less constrained by time and place in doing so because they can give the order to “move now!” or “hold for later.” (Ilahiane & Sherry 2009:94)

Moroccan laborers even borrow money from friends and family in order to purchase a mobile phone. These laborers reported that their mobile phone was of great assistance to their livelihood. The benefits seem to be a necessity in the current market-driven world, as those without a mobile phone are at a disadvantage (Ilahiane & Sherry 2009).

The need for a mobile communication device is also evident in India amongst Kerala fishers (Sreekumar 2011). Mobile phones assist these fishers in finding new markets for selling their catch, decreasing waste of their work and reducing the time between the catch and exchange. The device also facilitated their agency by allowing the fishers to engage wholesalers directly without middlemen as well as promoting cooperation between fishers in sharing information on good fishing areas. The perceived power of the mobile phone to make work more efficient made it a necessity in this community. Those without this power were destined to lose out on business and on the social contact between fishers (Sreekumar 2011).

Expanding one’s social network for economic benefit using the mobile phone seems to be a beneficial strategy (Ilahiane & Sherry 2009; Horst & Miller 2005). In the case of Moroccan urban laborers, just being available for contact and having one’s phone number in the contact list of potential employers greatly assisted their ability to find work (Ilahiane & Sherry 2009).

Jamaicans also utilize mobile phones to maintain a social network for economic benefits (Horst

& Miller 2005). By checking up on friends and contacts they were able to keep the contacts in their social circle, thereby giving them access to potential jobs and the ability to borrow money from contacts (Horst & Miller 2005).

The United States, meanwhile, has become a labor force of mainly information workers, using mobile phones for their work (St. Clair 2011). While these devices assist in the workers' output and general productivity, workers are possibly being replaced by ICTs (St. Clair 2011). Many of the jobs lost to the recent economic crisis are possibly not coming back, and the need for more educated and tech-savvy employees is rising (St. Clair 2011). The productive uses of the mobile phone allow fewer employees to create the same output as those in a pre-mobile phone world. The push for increased productivity by fewer individuals also stresses their involvement in work. The mobile phone extends connectivity to all areas of one's life, making anywhere one's "office."

This technologically-driven work affects the information of laborers' workplace as well. Open work zones implemented in Norway create a space of no fixed desks and functionally focused areas, promoting the use of mobile phones and other ICTs (Julsrud 2005). There seems to be a move away from physical space in these work environments, where patterns of information flow determine how people interact with each other as different media exclude or include others (Julsrud 2005; Meyrowitz 1994). The rationale from the company policy level seems to be "introduced under the guise of creating a more innovative work practice, developing knowledge, work, etc." (Julsrud 2005:97). They seem to be pushing to be a more modern workplace and are keeping up with the times. It is more likely that this open office is a means to keep better surveillance on employees or give workers the impression that they are more visible in this environment (Foucault 1995). Privacy is a concern of these new open work zones, as there

is a lack of physical boundaries in order to promote interactions with others and their own mobile devices. Employees even choose to work at home or other spaces outside of the office to gain privacy due to this open environment (Julsrud 2005).

#### **2.2.4 *Space***

The mobile phone has become able to be used nearly everywhere, which means the user can bring their contacts with them. They are able to be contacted wherever they may be. This communication that takes place everywhere can merge the private and public lives of the mobile phone user. While communicating with others through the mobile phone, both individuals bring each other into their physical space and to the space of others in their vicinity (Fortunati 2005a). The user can also interact with the phone through only its display for a variety of uses, thereby diverting attention away from their physical surroundings and onto the screen of the mobile phone. An amalgamation of private and public space creates a hybrid digital and physical environment that must be studied further (de Souza e Silva 2006).

Through incoming and outgoing calls on the mobile phone in public spaces, mobile phone users subject their private lives to those around them. By speaking with family, friends, or acquaintances over the mobile phone the speaker announces words meant for these others, but these words can be intercepted and interpreted by others who may be physically present. Leopoldina Fortunati sought to understand this effect of the mobile phone through ethnographic research in Italy (Fortunati 2005a). She spent 200 hours on Italian trains for participant observation, and conducted 20 non-structured interviews with Italian males and females based on a convenience sample. Her aims were to understand individuals' self-presentation, reactions, and emotions evoked by mobile calls, and the social consequences of mobile phone use on the

performance of their multiple personalities and social roles. Individuals felt they were forced to eavesdrop on other peoples' mobile conversations, and initial assumptions about others (displaying their public selves) were changed when mobile phone users answered their phones (displaying their private selves). In a sense, mobile phone users are opening themselves up to the world and removing the boundaries between their private and public selves (Fortunati 2005a).

The reactions of those around the mobile phone user are important to note in determining the mobile phone's effect on the public, not only the individual. According to Paragas, conversations on a mobile phone are gauged as appropriate or inappropriate based on the topic, tone, and length of the call. Individuals in public spaces enforce these rules of appropriate mobile phone use through glares at the inappropriate user, or bumping into them, though direct confrontation is rare (Paragas 2005). Still, the outright ban of mobile phone use in public is unlikely in most circumstances, as individuals realize they have the right to private territories in public space (Paragas 2005).

At the same time mobile phone user is gradually sectioning off themselves from public space through interaction with the mobile phone screen (as opposed to voice calls). The mobile phone, with its plethora of activities and alerts, fights for the attention of the user (de Souza e Silva 2006). The choice between focusing on the mobile phone or the physical space around us raises questions on how we navigate this choice. We live in hybrid spaces where we switch from one screen (mobile phone screen) to another (actual surroundings) (de Souza e Silva 2006). In Japan, Professor Machiko Kusahara tells the story of a man waiting for a train in the Tokyo subway. The man was so immersed in his mobile phone screen that he unconsciously crossed the security line of the subway toward the rails, though he was able to move in time to avoid being

hit by the train (de Souza e Silva 2006). This immersion in the digital world of the mobile phone, while shutting out the outside world, can be harmful to the user.

### **2.2.5 Attachment**

As the mobile phone is an item that is carried around with the user and is used in communication, education, work, and other areas of the users' daily life, there have been insinuations of growing attachment to these devices (St. Clair 2011; Park 2005; Reagan & Lee 2007; Vincent 2005). Literature on addiction to the use of a mobile phone, and attachment to one's device, explore these concepts and question the relationship user have with their device. The mobile phone users' relationship with their device may be more complicated than just a connection to the device itself (Vincent 2005). Mobile phones contain personal information: phone numbers of friends and family, personal pictures and videos, and a plethora of other information that would be lost if the phone was ever lost.

Mobile phones may possibly cause addictive behavior in some users. Addiction is vaguely defined as it is difficult to separate behaviors performed out of preference, desire, or of necessity (outside of extreme instances such as methamphetamine addiction). Addiction may be defined as any compulsive or overused activity (Peele 1985). Compulsive behaviors such as smoking or drinking reward their users with dopamine (a "feel good" hormone) and it is evidenced that mobile phones cause this reinforcing/reward system as well (St. Clair 2011). Research on mobile phone use as a form of media addiction has helped to determine if there are addictive behaviors associated with the device as well as what factors could cause it (Park 2005).

Park conducted a survey of 200 college student mobile phone users in Seoul, Korea in the winter of 2002-2003 to understand the correlation between mobile phone use and media

addiction (Park 2005). The survey was adapted from a similar study on television addiction and measured tolerance, withdrawal, unintended use, cutting down, time spent, displacement of other activities and continued use. The results indicated that the mobile phone acted as a depressant for mobile phone users; users indicated mobile phone use was a form of escapism and it was used to pass time (Park 2005). This behavior indicated an opposition to using the mobile phone for increased cognition, which would have inferred that mobile phone use has a stimulating effect (Park 2005). Excessive mobile phone use also correlated highly with users' feelings of loneliness, since individuals experiencing loneliness used their mobile phones to practice escapism more often than other individuals (Park 2005). There seem to be more feelings of loneliness associated with heavy internet use as well, and this heavy use is inversely correlated with extroversion (Reagan & Lee 2007). A possible reasoning for this phenomenon is that individuals who use their phone habitually are communicating with their existing social network more often than meeting new people and interacting with others in the immediate area (Park 2005).

In addition to addiction studies on mobile phone use there has also been research on attachment to the mobile phone itself (Vincent 2005). Using questionnaires, diaries, interviews and focus groups, Jane Vincent explored the use of mobile phones by families and young people for personal as well as business use (Vincent & Harper 2003; Vincent & Haddon 2004). Vincent found that mobile phone users had come to depend on their devices, craving the constant contact the mobile phone provided (Vincent 2005). Participants expressed their feelings of panic due to absence from the device, reported irrational behavior from risky use (driving and texting), as well as experiencing thrills from novelty, multi-tasking, and intimacy of texts (Vincent 2005). The explanation for this behavior could possibly be due to the mobile phone being a



representation of the user since it contains all of his or her personal information and essentially contains their identity (Vincent 2005). Attachment should be attributed to the mobile phone as a conduit for providing connections with others, rather than a preoccupation with the device itself (Vincent 2005).

### **2.2.6 Perception**

As individuals adopt mobile phones they also adopt the identity as a mobile phone user. This identity can change how an individual considers himself and what he may think of other users. There seems to be a perceived differentiation between the user and his own use and the use of others in that their own use is more purposeful and less annoying than others' use. (Koff & Moreno 2013; Cumiskey 2005). The mobile phone can change users' perceptions of the world around them as they adopt these devices into their lives. These perceptions can distort one's view of her daily life in terms of how she believes that she would use, or how she does use, her mobile phone, versus how she actually uses her devices (Leonardi with Leonardi & Hudson 2006). How people integrate these mobile phones into their life may influence the way they view their world.

"[T]he fundamental attribution error," or correspondence bias, in social psychology is the tendency to overestimate the degree of a person's disposition being the root cause of a person's behavior, underestimating situational factors (Cumiskey 2005:226). This bias is seen in the perception of mobile phone users as rude and inconsiderate, which may differ from the users' perceptions of their own use. A study that sought to research this difference in perception of personal use versus others' use was conducted in New York City (Cumiskey 2005). Two forms of a 30-item questionnaire were given to 171 participants; one "self-survey" and one "others survey" (Cumiskey 2005). These questionnaires asked participants to rate emotional experiences

of mobile phone use and participants were also asked to relate a story of personal public mobile phone use (Cumiskey 2005). Participants reported that they felt self-conscious, friendly, scared, happy, comforted, surprised, safe, nervous, and paranoid by their own public mobile phone use (Cumiskey 2005). When questioned about other people's mobile phone use, participants reported feeling annoyed, disturbed, angry, disrespected, and ignored. This rudeness may be attributed to the exclusion of others around the mobile phone user, while self-reported negative feelings may be due to being self-aware that they are expressing the exclusionary role that they place on others (Cumiskey 2005).

This self-awareness may also affect how individuals think about their mobile phone use. When reporting their own use of their ICTs, users tend to underestimate their degree of use (Koff & Moreno 2013). Especially with the mobile phone's ubiquity, it may be difficult to keep track of how often one uses his device. There is also the possibility that a social stigma of excessive ICT use exists and that participants will actively report less use according to social desirability bias (the tendency to report information that will be viewed favorably by others) (Koff & Moreno 2013:392).

The labeling of socially appropriate and inappropriate use of mobile phones can assist in the creation of a social stigma of mobile phone use. In order to see if individual personality affects perception of appropriate mobile phone, Steve Love and Joanne Kewley surveyed 42 participants who had owned a mobile phone for at least one year (Love & Kewley 2005). The participants were given a questionnaire assessing their feelings of mobile phone use in their personal space, as well as assessing their personality dimensions (extroversion-introversion, neurotic-calm, and agreeable-disagreeable). Results indicated that high extroversion and agreeableness in individuals led to more comfort in situations where mobile phone voice calls

were taking place around them. This was in direct contrast to introversion and neuroticism personality indicators. These measured personality differences in individuals may lead to developing social stigma in overall perceptions of mobile phone use and mobile phone users (Love & Kewley 2005:279-280).

In terms of initial adoption of mobile phones, there seems to be differences in individuals' reasons why they would use their mobile phones before adopting, and how they use them after adopting (Leonardi with Leonardi & Hudson 2006; Levinson 2006). The majority of reasons respondents gave for adopting mobile phones was increased security; to be in contact with others in case of emergency and staying in contact. After adoption, users seem to embrace increased social contact and conversing freely with one another (Leonardi with Leonardi & Hudson 2006; Levinson 2006). This phenomenon has been shown to be a cross-cultural one as individuals who self-identified as North American, Latin American, and Ukrainian all adopted mobile phones for security reasons (Leonardi with Leonardi, & Hudson 2006). The differences between the cultures occurred in reports of their use after adoption. North Americans focused on ego-centric communication—the desire to be able to contact others at the individuals convenience—and expressed a desire of “not being alone.” Latin American individuals mainly used their mobile phones to keep in touch with family, attempting to keep themselves in constant contact with those at home (Leonardi with Leonardi & Hudson 2006). Ukrainians saw and used the mobile phone as a status symbol, marking their wealth and social status (Leonardi with Leonardi & Hudson 2006).

This social symbology of the mobile phone extends beyond Ukraine, as the technology is a mark of wealth in many cultural contexts (Fortunati 2005b; Katz 2005; Kavoori & Chadha 2006). In India, there are changing cultural values through consumption, globalization, neo-

liberalism, and the role of technology in ones' life (Kavoori & Chadha 2006). Through analysis of public Motorola advertisements in India, we may infer that Indian people are being sold an identity of technological advancement (Kavoori & Chadha 2006). These ads stress individual progress through the purchase of a mobile phone. The advertisements present the mobile phone as a device that can open a path toward new and more civilized identities (Kavoori & Chadha 2006).

It's not just about how the technology works but also on how others perceive the owning of that technology (Katz 2005). The status associated with owning a technology changes how we will use that technology. The mobile phone, as a wearable technology, is also seen as an extension of one's identity (Katz 2005; Fortunati 2005b). Mobile phones are used to present one's self—to construct a public image and fill in gaps or empty moments with a precise rituality (Fortunati 2005b). They are used to overcome timidity and discomfort in one's performance and maintain an image in public space (Fortunati 2005b).

### **2.3 My Contribution**

Although some of these studies reference specifically the effect the mobile phone has on the everyday life of the individual (Pertierra 2005; Contarello, Fortunati and Sarrica 2007), most only focus on specific aspects of use. Through my own research, I have not only looked into communicative and informational aspects of the mobile phone, but have tried to integrate all aspects of use that would affect the users' lives. This holistic approach to mobile phone use, while it has the possibility to stretch topics too thin by covering a wide array of aspects, strengthens my study because we see the variety of ways in which these devices influence my population of study.

My study has taken all of the themes presented in this literature review into account through the use of observation and interviewing in order to contribute to these themes. The research I have done at Georgia State University has focused on analyzing the use and implications of use of mobile phones by GSU students. Specifically through interviewing, I have asked individuals questions regarding the ubiquity and connectivity of mobile phones, individual perceptions of use and on the devices themselves, the extent to which they use their phones, and design aspects for mobile phone development. In particular, to understand just how the integration of the mobile phone affects these individuals' daily life, I have asked my participants about their use in relation to their work, sociality, and leisure time.

Even without prompting participants to discuss such topics from the literature, I have seen a lot of overlap between my research and the literature on this subject. The studies prior to my own have been quite detailed in each of these themes that they have explored, and sometimes the studies in which I have described cover multiple themes. My study, however, has attempted to cover all of these themes and more, contributing knowledge to all areas of mobile phone studies. In researching the impact the mobile phone has on the daily life of my participants, I have been able to uncover information regarding its influence on participants' work, communication, education, attachment, perceptions, and even how these factors can influence phone design.

The timing of my study is important to consider due to the rapid development of mobile phone technology. Mobile phones have grown exponentially more sophisticated since their introduction more than fifty years ago. Every few months, a new model of a mobile phone is created, essentially making the older version obsolete. The mobile phones studied even five years ago are likely unused today, or considered unusable by today's mobile phone users.

Specifically after 2007 to the present, with the introduction of the iPhone, the iterations of the mobile phone are capable of performing many tasks previous phones could not.

The operating systems running the user interface for newer mobile phone models make these new phones faster, more intuitive, and there have been major changes since the introduction of the mobile app (application). These apps are mostly third-party software that allows the mobile phone to perform a variety of tasks including online banking, directional advisory through GPS, remote control TV's, or translate languages (Chen 2011). Apple Inc., the producer of the previously mentioned iPhone, has approximately one million apps in their app store as of October 2013 (Costello 2013).

Much of the existing literature was produced before these new iterations of mobile phones, and the use of these devices have possibly changed in kind (Horst & Miller 2005; Love & Kewley 2005; Katz 2005; Fortunati 2005a, 2005b; Levinson 2006; Gordon 2006; de Souza e Silva 2006; Ito 2005; Ling & Yttri 2002; Julsrud 2005; Park 2005; Vincent & Harper 2003; Vincent & Haddon 2004; Vincent 2005; Cumiskey 2005; Leonardi with Leonardi & Hudson 2006; Kavoori & Chadha 2006; Pertierra 2005). As mobile phones and other information and communication technologies are constantly changing, it will be useful to contribute a more recent study to the existing literature.

Overall, the research on the mobile phone as a force of social change is vast in its focus and rich in its information. With my study's contribution to the existing body of literature, in how the mobile phone is integrated into the daily life of GSU students and the socio-cultural implications of its use, we may be closer to understanding the effect of this technology. In the literature, and in my own research, I have seen that the mobile phone affects social systems and the way that we communicate and even how we perceive our world and those around us. Culture

is affected by the tools that we create through our interpretation of these devices and in the ways we choose to incorporate them into our life. By finding its place in our world, we may understand its impact and determine just where the mobile phone is leading us.

### **3 Methodology**

The ever-present mobile phone in our modern society continues to ingrain itself into every facet of Americans' daily life. Our mass media presents these devices to us on a daily basis. Even if we do not own a mobile phone ourselves, it is highly likely that we will encounter one in the presence of others. With the proliferation of this technology, to the point of people considering the ownership of a mobile phone a necessity in our society, it is imperative that we understand the impact these devices have on individual populations and our socio-cultural world.

By looking at a small segment of the United States, Georgia State University in Atlanta, Georgia, we can understand the impact of these devices on the lives of college students. The aim of this research is to determine how Georgia State University students integrate the mobile phone into their daily life and to see the social and cultural implications that these devices have on their identity, their social interactions, and their work. This phenomenon must be understood to determine the influence these devices have on the people who use and encounter these devices every day.

What happens when a person uses a mobile phone regularly? Are there impacts at the individual level? On our social and cultural systems? With a device that has such a presence in our life, to not understand its impacts means falling victim to possible detrimental effects they may have on us. I have sought to understand these impacts through the use of ethnography at

Georgia State University, specifically focusing on current students 18-30 years of age who own and operate a mobile phone.

### **3.1 Where Did the Study Take Place?**

I conducted my ethnography at Georgia State University, located in downtown Atlanta. This is an urban campus, surrounded by government buildings, shopping districts, highways, and hospitals. Other than the courtyard area in the middle of the campus, all main campus buildings are located off of major, high traffic roads. With the minimal options for student housing and only 17% of undergraduates living in college housing, it appears that the university is mostly a commuter college, with students coming from all areas of Georgia to attend (The College Board 2015). It is a gray world, made up of concrete structures with little decoration, save for a panther statue outside of the Student Center. Within the center of the campus, the courtyard area, there is greenery, offering a contrast to the concrete that surrounds it.



**Figure 1: GSU Courtyard**



Most of my observations have taken place in this courtyard area, a general gathering place for students, in-between their classes, as well as a practical necessity to move through between classroom buildings. This area has the most traffic out of all other areas on campus. The gathering quality of the courtyard area tends to draw attention from outside interests. Propaganda from voting recruiters, job recruiters, DJ's, as well as inside interests in the form of GSU clubs and organized groups take root in the courtyard area to gather the most attention. As a public space, the courtyard takes an interesting form where several highly religious individuals comment on the sins and debauchery of the student body and promote religious conversion in the courtyard area. It seems that this area is an area where one can reach the most students' attention.

Other areas of special interest in my observations were the university library, the student center, and the university center. The library is quite large, containing a north and south wing as well as five floors of bookshelves, computer areas, desks, and special study rooms. The library also contains a coffee shop and museum exhibit dedicated to musician Johnny Mercer. The university and student centers both contain cafeterias which are major gathering areas for students. Both cafeterias contain charging stations for mobile technologies (such as the mobile phone) and many students use these areas to use their mobile phones as well as their tablets and personal computers. The student center in particular has a lounging area that was a focal point for unobtrusive observation. Several groupings of lounge chairs line a wall made up of mostly glass, overlooking an outside street corner. The public areas I have described made up the majority of my observations as they are generally the most common gathering places of students.



**Figure 2: Student Center Cafeteria**



**Figure 3: Student Center Charging Station**



**Figure 4: Student Center Couch Area**

### **3.2 Who Participated?**

Participants I have had direct contact with, particularly through formal interview discussions, are Georgia State students between the ages of 18 and 30 who own a mobile phone. Overall the majority of this population of students at Georgia State University are currently working on an undergraduate degree, though there are many obtaining higher level masters or doctorate degrees. My ethnography of these individuals will inform me on how this particular cultural group uses and perceives the mobile phone.

To get a better idea of just who comprises the Georgia State University student body I have consulted the business website Forbes.com (Forbes 2015). The student population as of 2013 was made up of 32,087 students, 24,656 of those being undergraduate students. According to Forbes: students identifying themselves as a female make up the majority of the enrollment (59%) compared to students identifying themselves as males (41%). Enrolled students who identify as black or African American make up the majority of the student body (38%) with students identifying as white the second highest demographic (34%). Students identifying themselves as Asian/Native Hawaiian/Pacific Islander students make up 11% of enrolled

students and Hispanic/Latino individuals make up 8%. Students attending the university are mainly full-time students (73%) as opposed to part-time (27%). Students between the ages of 18-24 make up 74% of enrolled students while 25% are between the ages of 25-64 and 1% are below the age of 18. The majority of students are in-state (95%).

The reason I have chosen this body of individuals is centered on the availability of the mobile phone as well as their experience with mobile phones and other digital technologies. Due to the high cost of admission of attending college it would be reasonable to assume that this particular population would also have the finances to afford a mobile phone. Though Georgia State University is among the least expensive universities in the United States (in-state tuition is around \$8,000 per semester), the cost of attending this university is still a luxury many may not be able to afford (Forbes 2015). The price of the mobile phone itself, along with contracts with service providers such as Verizon, AT&T, and T-Mobile that bill monthly for use of the phone is generally costly. Mobile phones may be more abundant in this population than in others who may not be as able to afford them. The presence of mobile phones among this population that may not be able to attend more expensive colleges also indicates that mobile phones are still purchased even when those individuals aren't financially well off.

The age of the participants was selected due to the relationship of this generation with digital technologies. Overall, participants in this age group have had increased exposure to digital technologies than older age groups. For most of their lives, they have had access to digital technologies such as the mobile phone and other information and communication technologies (ICT). This is due to the proliferation of ICTs during the late 1990's and early 21<sup>st</sup> century (St. Clair 2011).

The participants I asked to speak with directly one-on-one are individuals I have met since attending Georgia State University myself. Since coming to Atlanta to attend GSU, I have met a number of individuals in my day to day activities on campus culminating in a list of individuals whom I wished to speak with about their mobile phone use. Several of my interviewees I met through academia, studying social sciences such as sociology, anthropology, and history. I met other participants through these students or by happenstance. Through the snowball method, I was introduced to two participants (Mark and Bobby) for the specific purpose of conducting an interview, meeting them for the first time at the interview.

Here is an overview of my interviewees:

**Felicia:** 21 years of age. An anthropology undergraduate student. We met at our mutual job.

**Paris:** 24 years of age. A journalism undergraduate student. We met at our mutual job.

**Bobby:** 21 years of age. An anthropology undergraduate student. We met through a mutual friend, Felicia.

**Lindsay:** 24 years of age. An anthropology graduate student.

**Mary:** 24 years of age. An anthropology graduate student originally from Alabama.

**Adam:** 28 years of age. A sociology graduate student I had met in a sociology class.

**Mark:** 21 years of age. A chemistry undergraduate student. We met through a mutual friend, Felicia.

**Michelle:** 30 years of age. An anthropology graduate student.

**Joan:** 23 years of age. A sociology graduate student I had met in a sociology class.

**Cory:** 23 years of age. A history graduate student. We met through his girlfriend Joan.

**Tia:** 24 years of age. An Arabic language and literature undergraduate student originally from Alabama. I had met her through our mutual friend Mary.

**Shirley:** 25 years of age. An anthropology graduate student.

**Kyle:** 21 years of age. An Arabic language and literature undergraduate student. I had met him through his job as a resident assistant.

**Stewart:** 27 years of age. An anthropology undergraduate student. I had met him through an anthropology professor.

### **3.3 What Methods Were Used?**

Through the use of ethnography, I sought to understand the impact of the use of mobile phones on the culture of Georgia State students. Ethnography refers to the “on the ground” research tactics that are utilized to determine what effects are occurring at the cultural level (Bernard 2002). Culture is a term used to describe a set of beliefs, ideas, and opinions shared between a group of individuals (Bernard 2002). Those who have chosen to attend GSU and participate in this institution contribute to the culture of the university. I used ethnography in order to determine the shared attitudes and opinions of Georgia State students in regards to their mobile phones. It should be noted that this campus, like all populated areas, is not culturally static and is heavily influenced by outside forces such as mass media (in the form of television, movies, the internet, etc.) and social systems throughout Georgia, the United States, and global systems. Ideas and opinions held by participants and the behaviors of GSU students could be influenced by larger cultural systems and not specific to the campus area itself. Still, treating this population as a particular social and cultural group is necessary in order to analyze the socio-cultural processes that affect mobile phone use at GSU. To understand these processes may uncover underlying cultural processes of larger social groups, starting at the cultural level of GSU.

The particular ethnographic methods I have utilized to answer my research question are participant-observation, unobtrusive observation, and in-depth semi-structured interviews.

Participant-observation is the act of living with a population, interacting with members of a particular social group, and taking notes of how the social group is structured, how it operates, and gaining a sense of the shared culture by experiencing it first-hand (Bernard 2002).

Unobtrusive observation, on the other hand, is observing behavior without interaction with those under observation (Bernard 2002). One-on-one interviews come in many forms in social research: structured or unstructured, in-depth or survey, closed-ended or open-ended (Bernard 2002).

I have chosen to conduct in-depth semi-structured interviews, asking open-ended questions of my participants in order to get their ideas and opinions on mobile phone use. I was able to speak with fourteen different individuals aged 18-30 who owned a mobile phone and were in the midst of their education at Georgia State University at the time of the interview. Eight of these participants are female, while the remaining six are male. Interviews consisted of thirty-two open-ended questions with several follow up questions in-between. This was done in order to delve deeper into the participant's responses. Each interview lasted between thirty minutes to an hour and a half.

The sampling procedures I used were convenience sampling and snowball sampling (Bernard 2002; Trotter & Schensul 1998). Coming from out of state (and out of the south-eastern United States in general) in order to attend Georgia State University, I did not know anyone prior to arriving. Those individuals that I have met since classes began, both through my classes and interactions with the GSU student body in general, fit into my participation parameters and were incredibly helpful in understanding mobile phone use in this new culture. By having more formal discussions about use of mobile phones in one-on-one interviews with GSU students, I was able to learn more about mobile phones and those who use them.

I asked these individuals to speak to me because I was already on friendly terms with them, conducting an interview for about an hour each. Speaking with those with whom I already had rapport helped to give me an inside look at my participants real opinions which I may not have been able to get from people I didn't know. I gained information I would not have gotten otherwise since these individuals felt comfortable with me (Bickman 2009).

To gain more participants, I turned to snowball sampling. I asked those individuals that I had become friendly with to point me in the direction of other GSU students that would be available to be interviewed. In asking my previous participants to facilitate contact between their friends and me, I was able to speak with students I may not have been able to speak with previously. Expanding outside of my personal network was important to increase my sample, and gain a broader understanding of GSU student culture (Trotter & Schensul 1998).

### **3.3.1 Interviews**

The majority of data I gained from participants was through open-ended in-depth semi-structured interviews. I conducted these interviews in the Georgia State University library study rooms. Interviews began in July of 2014 and concluded in January of 2015. The interview schedule was comprised of 32 questions on various topics related to usage of the mobile phone in order to answer my overall research question: How are mobile phones integrated into the daily lives of these students and what are the social and cultural implications of this use? These 32 questions can be broken up into five different categories: ubiquity, rate of use, utility, perceptions of use, and technological development of mobile phones. Ubiquity refers to the presence of the mobile phone throughout the life of the individual, asking how available the phone is in day to day life as well as where and when they are appropriate to use. The “rate of



use” questions ask how often individuals use their mobile phones, how often they check it, and in what activities they use it. Questions of the phone’s utility ask the individual how beneficial or detrimental they believe their use is in certain situations, especially in their work, leisure, and social domains. Asking the participants what they think and believe about their mobile phones and their use of these devices are under the topic of perception of use. Finally, at the end of their interview, I asked them to think of how their mobile phones may be improved upon in the future. I think that this question is important to understand mobile phone development from the point of view of users of this technology, but also to determine what possible detriments my participants observe about the mobile phone as a device.

### ***3.3.2 Participant Observation***

Through my interactions with the GSU student body, I have picked up information relative to my research. As the mobile phone is integrated into the daily lives of individuals in my population of study, it becomes a topic of conversation. Who has a brand new phone? Whose isn’t working properly? What new software is available? Becoming immersed in the culture of Georgia State students and socializing with other students has helped me gain new insight into just how the phone is a part of these individual’s lives (Bernard 2002)

It is not just what is being discussed about the phone itself but also as a facilitator of conversation in itself. People use their mobile phone to convey ideas, bring those not physically present into a conversation, and as a general tool for solving problems. To be present in these situations is a resource for rich ethnographic data to be used in my research (Bernard 2002).

Participant observation gives the researcher a method for seeing what people say they do vs. what they really do in their everyday lives. An issue with interviews is that there is difficulty

in discerning falsities between the two (Bernard 2002). Participant observation helps to fill that gap: seeing what people say in regards to their actions witnessed by unobtrusive observation and seeing contradictory actions to what participants said they do from their interviews (Bernard 2002).

This method also allows me to participate in the discussion of mobile phone users and to probe and ask questions about the actions or words of others (Bernard 2002). For example: if I was around two other graduate students I was friendly with and one performed an action on their mobile phones that I had not witnessed up to that point, I would be able to ask them about their behavior. By being physically present, interacting with individuals in this culture, I was able to gain much more information than if I had never been there at all (Bernard 2002).

### ***3.3.3 Unobtrusive Observation***

Throughout my time on the Georgia State campus, I have observed behavior related to mobile phone use in public areas. These spaces, open to all students and non-students alike, are generally areas in which unobtrusive observation is very useful (Bernard 2002). By spending time in some of the public spaces around campus, I was able to observe my study population as they went about their daily life. Through unobtrusive observation, I was able to see how students use their mobile phones without having direct contact with the individuals themselves.

I had used a notepad to record most occurrences of interesting behavior throughout the university campus. What students may have said or done that caught my interest and informed me on new details on mobile phone use or repeated behaviors to confirm cultural data. I had also used my mobile phone to record notes to be less conspicuous due to the nature of mobile phone use. Without knowing exactly what I was doing on my mobile phone, students did not know I

would be writing notes at all. I have also taken several pictures of my most commonly observed areas using my mobile phone as seen in figures 1-4.

Overall I have spent a great deal of time on the campus itself, having lived in the university lofts for my first two semesters of school. Since the lofts are about a five minute walk away from the GSU courtyard I spent a great deal of time observing students in their daily life on campus. From August of 2013 to May of 2014 I had constant access to the GSU campus and spent a great deal of time conducting unobtrusive observation both during peak school hours and slower times during breaks in the semester. I spent most of my classroom observation time within Sparks Hall and Langdale Hall in which I attended classes. During the fall semester of 2014 I took the shuttle bus from Turner Field to campus four days a week at 10am and 12pm on alternating days and took the shuttle back around 4pm Monday-Thursday. The bus was full of students during most of these time periods and I gained rich observational data on mobile phone usage by students on their commute to campus.

The public areas at which I conducted unobtrusive observation were generally places where students commuted through or spent time in between classes. I observed the courtyard area at the center of several classroom buildings, the student and university centers, the university library, as well as a shuttle to and from the parking lot at the Turner Field baseball stadium. I also observed student behavior along the sidewalks, hallways, and walkways in and between university buildings. These are all public spaces where students using their mobile phones could be easily observed.

The purpose of this passive observation in public spaces was not to see what individuals would use their phones for, but in what ways they would interact with their phones from a passerby's perspective (Bernard 2002). This method helped me to understand what others would

perceive in the same location and how individuals would form their opinions on how others use their mobile phones. I observed a range of behaviors, e.g., how students would handle their phones, when they would use them, how they carried them, and how they touched them. Unobtrusive observation also included the “forced eavesdropping” (Fortunati 2005a) of mobile phone conversations, as individuals would talk on their phones in public settings. This helped me to answer the question: just what are GSU students willing to share over the phone around strangers?

The weakness of this method of observation in the case of my research is that it is difficult to determine how and for what these individuals are using their phones. Since I would only see the back of people’s phones (I would abstain from observing their actual task at hand due to privacy issues), I would not see what individuals would do on their phone. As a passerby would, I only saw what participants were willing to share with the general public. Considering the range of options one would have in their use of their mobile phones (especially smart phones), it is difficult to ascertain their reasons for use besides a phone call. However, it is important to note that holding and using a mobile phone is a prevalent, if not a universal cultural practice among college students.

#### **3.3.4 *Data Analysis***

To analyze the data retrieved from participant observation, unobtrusive observation, and in-depth interviews I have used grounded theory (Bernard 2002). With an open-ended research question, it was important that my research process was iterative because I would be able to re-interpret my research ideas and goals through the research process (Bernard 2002). The data I gathered from participants informed me on what questions I should be asking, what points I

ought to focus on in more depth, and to let my experiences in the field assist in refining my research focus. This is extremely important in cultural research because certain preconceptions about what one should be focusing on in their research might be missing the entire point of what participants feel is important (Bernard 2002). Allowing the research strategies to be fluid and responsive to the data I received helped to find what was truly important in studying mobile phone use. I became grounded in the data as I experienced the culture and behavior of my participants.

Utilizing grounded theory I was able to uncover themes from what my participants said and how they acted. The particular sections of my ethnography were decided upon due to the shared opinions and responses from my interviewees as well as what I have observed from students on campus at GSU. While the main categories were created out of shared responses and similar sentiments on mobile phone use, I found that it was important to incorporate outlier responses and behaviors in their appropriate categories to represent the full range of mobile phone culture.

## **4 Ethnography**

### **4.1 Adoption**

In order to fully explore the effect that my participants' mobile phone has had on them, it is important to fully understand their relationship with their phones. I asked my participants how and why they adopted their first mobile phone as well as how they viewed their device and their use of their device. Through our interviews I began to notice my participants' sentiments toward their device and what had changed in their lives since first receiving one.

A number of commonalities between my participants pointed me in the right direction toward understanding just why my study population got a mobile phone in the first place. All participants received their first mobile phone in their teenage years, 11-19, as a gift from their parent(s). The most popular reason for giving their child a mobile phone was to stay in touch with them. Parents desired to know where their children were, being able to contact them or others in an emergency situation, and staying in touch with them were primary reasons for giving them a mobile phone. To give a better idea on how and why my participants got their phone I will give a brief description of their stories.

**Felicia** (21): Felicia received her first mobile phone when she was 15. Although her parents were hesitant to give her a mobile phone because “they knew it would distract” her, she had “begged for it. Everyone had it and I was like ‘why can’t I have one?’” On her 15<sup>th</sup> birthday she was gifted a mobile phone along with her younger sisters.

**Paris** (24): Paris’s mother gave her a mobile phone when she was 11 years old. Since she was the oldest in her family and would often take care of her younger siblings when her mother was away, she was given a phone so her mother could check up on her and her younger siblings.

**Bobby** (21): Bobby was a sophomore in high school (15-16 years of age) when he received his first phone. His parents gave it to him when he began driving a car. They wanted to stay informed on where he was going and to make sure he was okay. He was “starting to get out and about” and with his peers also getting mobile phones, his parents decided to get one for him.

**Lindsay** (24): She received her first mobile phone when she was 14 years of age. The year before she had received it she had gotten lost on an organized church camp trip with friends. No one had a phone and one diabetic girl was in need of insulin and had passed out with no way of notifying anyone. One year later she was given a mobile phone, stating that her parents had said something along the lines of “maybe you should have a phone, also because you’re in high school and... we should just know where you are probably.”

**Mary** (24): Mary was given her first mobile phone in 7<sup>th</sup> grade (12 years of age) by her mother. She had given Mary a mobile phone so that she could talk to her mom without her stepmom listening to their conversations when she was with her father.

**Adam** (28): Adam’s mom gave him her mobile phone when he was 19. Adam had just moved to Georgia from out of state. He stated that he was given one “Because I needed it to socialize. I

needed it for people to contact me. At that point everyone else had one and it was inappropriate not to have one.”

**Mark (21):** Mark was given his first mobile phone in middle school in the 6<sup>th</sup> or 7<sup>th</sup> grade (11-13 years of age). Mark said that “Everyone had to have a phone, but also because I went to a middle school very far away from where I lived. Being a thirty minute commute, my parents felt more comfortable with me having a phone, otherwise I probably would have gotten it in high school.” It seems that safety was Mark’s parents’ primary motivator for giving him a mobile phone.

**Michelle (30):** Michelle’s mom picked out her mobile phone when she was 16 years old. Michelle had wanted one and “it was just the cool thing to do” at the time.

**Joan (23):** Joan explained her adoption as such: “I got that when I was in eighth grade (13-14 years of age). My parents were divorced so it was kind of like keeping track of me... and like being able to contact my mom and my dad.” She mentioned that if her parents had still been together they likely wouldn’t have wanted to give her a phone at that time.

**Cory (23):** Cory got his first cell phone when he was “either 12 or 13” in order to contact his parents. Since he was in his high school’s band he would need to stay after class in order to practice. Instead of taking the late bus home, they got him a mobile phone so he would use it to call them to pick him up from school or to let them know he would be getting together with friends instead.

**Tia (24):** Tia was gifted her first mobile when she was 12 from her mother. She stated that it was “not really because I wanted it, [but] just because phones were really coming into prominence at that time.” Tia recounted that all of her friends would make fun of her because her mom would constantly call her. Being gifted a mobile phone “was mainly just so my mom could keep up with me best.”

**Shirley (25):** Shirley received her first mobile phone when she was 13 years old. Her parents had given her a mobile phone since she was consistently late for her curfew and wanted her to be in contact so they would know where she was. When her first phone was stolen from her, she did not get another mobile phone until she was 17 since “everyone needs a phone.”

**Kyle (21):** Kyle received his first mobile phone when he was 13 from his dad. His father had given him his old flip phone to stay in touch with him because Kyle would often ride his bike around his neighborhood.

**Stewart (27):** Stewart was given a mobile phone in 1998 while he was in middle school. It was for emergency purposes and to stay in contact with his father. Since his father did freelance work he called to make sure Stewart “was okay, let me know when he would be home late, stuff like that.”

Participants' sentiments toward their mobile phones, from their first adoption to their latest device, informed me about just how these individuals viewed the mobile phone. Their first mobile phone seemed to be cool at the time according to Joan and Michelle. Since then, the phones that had been first adopted by participants, stretching back to almost fifteen years ago in the longest case, were not remembered fondly. Bobby referred to such mobiles as "dinosaur" phones, remarking on their age and the differences in functionality from then to now.

All interviewees now have a smartphone, considered to be the highest-quality mobile phones today. Many of my participants compared their new smartphone to the old mobile phone, regarding the latter as embarrassing, uncool, and ugly. Felicia stated that when her original phone broke she "was happy because it was ugly and old. So I was like 'this is more of an excuse for me to get a better one.'" Participant Adam had been a Tae Kwon Do instructor for children around the ages of 8-10 and stated that he was made fun of often by his students for his older mobile "flip" phone (a model of mobile phone whose body folded in to be more compact, also known as a clam phone). Since then, he purchased a smartphone but still keeps his older phone as a keepsake, saying that "I still look at it sometimes and miss it" reminiscing on its simpler functionality.



**Figure 5: Adam Brought His Old Phone to His Interview and Placed it Beside His New Smartphone for Comparison**



The rate of technological innovation in regards to mobile phones and other digital technologies has been exponentially fast. In terms of the iPhone, since its inception in 2007, a new version of the device has been released once a year. Interviewees Cory and Stewart brought up the concept of planned obsolescence in regards to mobile phones, which is the process of intentionally making older technology unusable as new iterations of that technology is created. “[The] actual like production of the product is such that they want it to be... physically impossible to use it within two years so that you have to go back and buy another one of their phones and they make more money,” stated Cory. Stewart also stated that older models of the iPhone would not be able to access the new software released recently so it would lack important functionality.

Planned obsolescence and the progression of digital technologies have resulted in an interesting phenomenon where old technology is almost completely disregarded. Older technology, such as the non-smart mobile phone, have become sort of a running joke for some. Participant Kyle mentioned that while at a hospital he “saw a computer with a floppy disk drive which I haven’t seen in forever so it’s more just that kind of laugh thing like these still exist.” In one of my classes at GSU, when a PowerPoint slide featuring the “flip phone” was used, several of my classmates laughed at this outdated technology.

It feels as if the development of digital technology reinforces an idea of mandatory modernity, where owning the latest technology allows you to be integrated in the mainstream of society. Paris stated that before she owned the latest phone she was embarrassed by it and felt judged by others. Now that she has a smartphone she is proud to have it on display and that now “I judge people with flip phones.” Interviewee Mark joked that “the greatest feature of my phone

is that when I see people with an iPhone 5 or 4, I put their phone on top of my phone. ‘My phone is bigger than yours’ I laugh. The best feature is being better than others.” When speaking of his switch from a regular mobile phone to a smartphone Mark stated:

...and I always say this to people. If you upgrade to a smartphone, your standard of living definitely goes up. It really does. You go from having basic, I’d go as far as to say utilities, like calling and texting on flip phones or general phones but when you go to a smartphone a lot of the things you had to have on a computer come to you. You have Facebook applications to keep you in contact. Twitter. So it just it helps you explore the internet more. Whereas you would have to sit somewhere in a stationary position you can just go like go and look up something. If someone says ‘hey, can you reference this for me’ like ‘oh look up this’ you would be able to immediately look it up whereas before you would have to go elsewhere or have I dunno flip phones have internet. Don’t get me wrong. Some of ‘em. They’re just not the same.

Paris stated something similar in her interview, that when she switched from an older mobile phone to a smartphone: “I’m upgrading my life so I got me a smartphone.”

Have participants’ continued adoption of bigger and better phones influenced how they interact with these devices? I would say yes, definitely. There is more to do on a smartphone than older models of mobile phones as I discuss further in the “replacement” theme. With the enhanced capabilities it seems that smartphones are likely to be used more often than older models, but does it raise one’s quality of life? I’m not so sure. More use of one’s phone can lead to feeling anxiety as I will discuss further later on in this ethnography.

## 4.2 Connectivity

The primary focus of the mobile phone in its inception was to be a phone, but mobile. The personal mobile phone has allowed users to placing phone calls on the go and be more readily available. It has enabled people to be more interconnected with one another (provided they also have access to a similar form of communicative device). Having the ability to call and

text others, as well as email, video chat, and social media communication more recently, helps users to stay in touch. This communicative ability, along with its portable nature, has led to having contact with others near-constantly. Although I have studied the connectedness of the mobile phone from the experience of GSU students, the mobile phone is a global technology. As representative of its global influence, in the present day, the mobile phone has become commonplace in many different countries worldwide (Ito 2005; Julsrud 2005; Fortunati 2005a & 2005b; Horst & Miller 2005; Green & Singleton 2009; Park 2005; Vincent 2005; Ilahiane & Sherry 2009; Kavoori 2006). The phone has allowed us to become interconnected with the world around us; its ubiquity fueling the intertwined lives of those who own one.

#### **4.2.1 *Emergency***

If my participants' mobile phone has allowed them to be in contact with others wherever they may be (as long as they have a signal) then it could be very useful when in need of the assistance of others. In the United States, the numbers 9-1-1 have been ingrained in Americans' consciousness as the telephone number for local police and emergency services. Telephones have long been helpful for assisting their owners by providing them with help when they have been in dire need. The only caveat with calling 9-1-1 for emergencies was that you needed to be near a telephone to do so, whether that be a local landline or payphone. Now that telephones are able to be transported with the mobile phone user, those individuals are given a lifeline to reach out to emergency services, friends, or family when in need.

Due to this capability as a lifeline, mobile phones are taken with the user wherever they may be "just in case" in case of an emergency. An interviewee, Mark, stated that "safety demands you have it on you." In a situation where a participant was unable to have their mobile

phone on them, as Shirley had found herself in when she traveled abroad to Europe, the experience could be anxiety provoking. This lack of communication added onto being in unfamiliar territory could certainly be nerve-wracking. Participant Joan makes sure to never be in such a situation as she keeps a charger with her almost at all times. She stated that it was comforting to always have it available in case of emergency. Keeping it on you for use in precarious situations has reminded me of the American Express slogan: “Never leave home without it.”

Throughout my interviews, almost all participants explained that their adoption of their first mobile phone was for use in the case of emergencies. According to my participants, the majority of rationale for purchase of the mobile phone was to be able to be in contact with the parent. One participant, Stewart, explained to me at several times during our one-on-one interview that his mobile phone was an emergency device and everything else was an extra feature. In his words, “Well the main thing is it’s a security blanket. Like I said it’s just for emergencies...” and that his “initial programming was that you have to keep it on for emergencies.” Lindsay’s experience with her diabetic classmate in high school explains the fear parents may have for their children’s safety and why the mobile phone is necessary for emergencies.

The majority of participants, when asked if their phone had helped them in unfortunate situations, explained that instances of car trouble were times where they were glad they had a mobile phone. In my own experiences, I have been warned of not leaving my phone at home while going out in case of a car accident. Considering travel by car has a high likelihood of mishaps through crashes, flat tires, engine troubles and the like, there is a good chance of vulnerability. Becoming lost in a given location was a cause for fear if my participants did not

have their phone on them. Most mobile phones today have global positioning features to guide users to their given destination. Participant Bobby had said that use of their mobile phone was very helpful in navigating new areas. Felicia also stated that having her mobile phone with her in an unfamiliar area was extremely important, in case she became lost or if something were to happen to her.

If stranded along major highways or unfamiliar roads, the isolation and helplessness of having no means of transportation or way of contact with others is a precarious situation. At the same time, Michelle said that if stuck in such a situation she would try to seek help from those around her. In her words, “That’s what I always think when I leave. Oh if there’s an emergency, but the reality is if there’s an emergency, we live in a world where there are a million people at any time next to us that we just ask someone for help. Like what is the emergency really that we have to have that cell phone for?” This is in contrast to Tia’s view on having a phone in case of an emergency, who said, “When I was in a car wreck it was really nice to have my phone to call the cops... I was fine but ya’know it was good to have it so I didn’t have to knock on somebody’s door at that hour.”

Three of my participants (Paris, Kyle, and Felicia) brought up use of a mobile phone to protect them from others. Kyle recounted a situation in the past year where his life was threatened on a first date gone wrong. When his date attempted to strangle him, his good friend came to assist him because Kyle had reached out to him. Prior to this date, Kyle established a sort of code with his friend where whenever he sent “S.O.S.” in a text message, his friend would use Kyle’s location services to come to him immediately. Thankfully Kyle was not seriously injured by his date. In a situation similar to Kyle’s, Paris was being harassed by “these stalker

guys” while out in downtown Atlanta. Before these men did anything to Paris, she received a call from her friend who had just arrived in the area. This effectively deterred her harassers.

Though not attacked or harassed by others, Felicia told me about an application for smartphones to help women in abusive relationships. The app has the appearance of a women’s magazine but has a secret feature hidden within the pages of the magazine. When this feature is accessed, the phone sends a signal to local police and using the phone’s location services, help will soon arrive. Since Felicia works in an internship that assists such women, she tries to mention it to them if they have a smartphone able to download it.

Kyle also mentioned that he receives emergency news and weather alerts on his mobile phone as well. The iPhone will actually receive emergency broadcasts in the user’s area and notify its user with an alert (both vibration and sound). I have received a few of these in my time in Atlanta which have notified me of a few cars being stolen, emergency weather updates (extreme snowfall), and an amber alert. Of note, in the University library on campus I received this amber alert and at the same time, heard the same notifying sound throughout the library. It is likely that all iPhones in the library alerted their user at the same time, creating a symphony of beeps and buzzes.

Keeping in contact with family and friends that may not be in the immediate area in case of emergency was a concern for participants. This concern also cuts both ways as a situation in which participant Mark had described his families concern for his safety one afternoon:

Mark: this situation I’m about to tell you is very annoying. Umm I got home and I used to live [near the Georgia State University campus] and kept in frequent contact with my family. Umm they like to check in on me, see how I’m doing, because I feel like every parent thinks this city is dangerous.

Ryan: Downtown?

Mark: yea. They al- they always have to check with me when I get home or- I always send them something like ‘I’m safe.’ I get home early, class ended early, I went to sleep. I went to sleep for a long time. I didn’t take a nap, I went to *sleep*. Six hours later (laughs) and I notice that my phone is covered with just tons of people trying to contact me. And actually like 20-something calls from my mom and like all my friends have been calling me. I’m like ‘whats going on? Something bad must’ve happened’ and I’m-I’m worried and I ans- and I call my mom back and she explodes on me. She’s like ‘where have you been?! I thought you died! I thought this and this and I called *all* of your friends’ who proceeded to call *me*. Umm so it may have been a life or death situation for my family per se. Me not have- well my phone was on me, I was just incapacitated but... in that way it could’ve been- if I had actually been in a situation where I wasn’t able to get to my phone for a very long period of time and I was in peril umm that- that set of events could’ve happened.

To keep in contact with family and friends and let them know you are okay is something that seems to have been enhanced by the mobile phone. Whereas in the past you may have had leniency in deciding when to check in with others, to always have it on you means that “you build certain obligations to people” for communication as Mark had put it.

The rationale to always have your mobile phone on you and that being without it for any length of time would be unwise defines the later sections of this ethnography. It begs the question: what happens to individuals and entire socio-cultural systems when a digital device is consistently and constantly present for the user? Being “always-on” in terms of a connection to your device, the internet, and to others, can have profound effects on those that have a mobile phone. The mobile phone effectively removes isolation of the user, assisting in the amelioration of emergency situations while also necessitating some to keep in constant communication and constantly have it on you. Anthropologist Leopoldina Fortunati has gone as far as to comment that with a mobile phone, a person is never truly alone (Fortunati 2005a).

### 4.2.2 *Communication*

The mobile phone's methods of communication between individuals vary, each with its own purpose, pros, and cons. The primary four communicative abilities are: phone calls, text messaging, e-mail, and social media outlets. These forms of communication allow the individual to keep in touch with others constantly. Participants have expressed that this connectivity feels overwhelming at times, as they can be contacted at any time by anyone, and there is a need to manage one's communication with others throughout their daily lives.

Overall, the primary method of communication between my participants is text messaging. Felicia said, "It's like my main form of communication" while Adam said, "Now texting is a second form of communication almost. Like if I didn't text I wouldn't know how to talk to people almost." It seems that texting can feel very natural and its preference for communication with others is apparent. Originally designed to send short, to the point, messages in order to save time rather than having a lengthy phone conversation, it has expanded to be a form of expression between individuals.

The reason text messaging is the most commonly used communication outlet on the mobile phone may be due to the multi-tasking nature of the text message conversation. One participant, Adam, explained texting as multi-tasking: "I think texting is texting because it's multitasking, or it could couple well with multitasking even though texting takes a lot of your attention... Like, phone calls take a little bit of time and I feel like texting is [what it is] because it doesn't- even though it-it drags the point in time out..." Adam goes on to explain that texting drags a conversation out, as a five minute phone calls becomes a five hour texting exchange, but this is for the sake of not fully distracting yourself from other tasks.



Since texting helps my participants with multitasking while communicating, what does that make communication to them? It seems that conversing with others is sort of compartmentalized in the users' daily life. Speaking with others through text becomes just another task to be accomplished in the life of my participants. It seems that if texting is taken any more seriously than another task, it is frowned upon. A similar sentiment between participants Mark and Paris is that texting is a lower form of communication, not meant to be used for actual connection with others. Paris stated that she hates "deep texting" where the sender texts in "long ass paragraphs" to convey their thoughts and opinions to the receiver and felt as though "deep texting" is meaningless. Texting for prolonged periods of time was seen as unproductive to Mark. At the same time he questioned his assumptions on the legitimacy of texting, stating, "Could anyone say that having a conversation with someone is a waste of time?" He felt that all forms of communication were probably legitimate and depended on the preferences of who was communicating.

Phone calls, on the other hand, are less popular than text messaging in the opinion of most of my participants. While some (Tia, Michelle, Adam) have shared annoyances in the time it takes for a text message conversation to take place as opposed to a phone call, these participants also prefer texting to calling. Most participants complained that phone calls were awkward and uncomfortable, particularly due to the pauses between topics of conversation. While staying silent for a portion of our interview, Cory explained the significance of this silence:

This... right here, what I just did. Filler words and silence and spaces and stuff like that. I guess it's just efficient for me to complete my thoughts and send it to someone and allow them to complete their thought, think through it, and send it to me. I feel like if you're talking on the phone there's this like, need to like say something even if you don't know what you're trying to say yet. You haven't like

cohered it completely. Gives you more time to really figure out what exactly you want to say.

Having the person on the other line be invisible means that there is a lack of information being presented through body language and other cues. This may be circumvented through the use of video calls such as FaceTime on Apple products and Skype. FaceTime and Skype establish a video link between users that utilize the forward facing cameras on mobile phones and other ICTs.

Though there is some hesitance toward calling others, many participants still use phone calls, mainly for communicating with their parents or to get their point across quickly. Adam and Michelle mentioned that a very long text messaging conversation could be settled in a short phone call and could be used when the caller needs a quick response. Checking in with parents who do not live with my participants anymore is an important part of phone calls on a mobile phone. Most participants still keep in touch with their parents through phone calls, reiterating their reason for receiving a mobile phone.

Another point to discuss with mobile phone calls is calling etiquette. Adam, Kyle, and Stewart stated that it was important to step outside while placing or receiving a phone call in order to not be rude to those around them. While at the University library I noticed a student getting a phone call and speaking on the phone in a quiet voice, likely to avoid bothering others around her or keeping private information from being overheard. To avoid interrupting whatever their phone call recipient would be doing, Kyle and Bobby would refrain from placing calls to others. Specifically, Bobby would wait until after 6pm to call someone considering most jobs end at 5pm and day classes would be over.

During my observations on campus there were three instances of phone calling on mobile phones that have helped to understand just how calls are navigated. While walking near the four-

way stop near Sparks Hall, a young woman shouted, “Why is she telling everyone that I’m a lesbian!?” quite audibly. In another instance, a young man who had his mobile phone on speaker mode was giving harsh criticism to the call recipient loudly. Navigating between one’s private and public life in public spaces can be difficult for individuals when placing or receiving mobile phone calls (Fortunati 2005, Paragas 2005, de Souza e Silva 2006). While some individuals attempt to hide themselves off from others in public areas when speaking of private information (like being called a lesbian) it may be difficult to refrain from reacting to the speaker on the other end.

E-mail through the mobile phone is generally not often used to communicate with others. Most participants claimed that they checked their e-mail on their phones but did not respond with their mobile, instead waiting to use a computer or tablet pc. Informants explained that e-mail responses through the mobile phone should only be short replies, and that all important, detailed, responses demand the use of a larger computing device. Participants expressed a felt need to constantly check e-mail they want to keep themselves updated on their affairs and not miss important information. Stewart stated that the original purpose of e-mail was that they were messages that did not necessitate an immediate response, though now that has changed. He insisted that the constant checking and responding of e-mail messages is necessary. In terms of who would be e-mailed versus texting or calling, participants claimed that conversations with people they didn’t know and with professionals (professors, bosses) should be over e-mail.

In figuring out which communicative method to use in certain contexts, Bobby explained what he considered was appropriate in terms of response time. Bobby elaborated on how to navigate communication through using his job as a lifeguard as an example. He stated that email was used by his employer when there was general information to be distributed and any changes

to their work schedule that would not take place in the immediate future. Text messages were sent by his employers as well as other employees to handle shift changes usually taking place within a week's time. Receiving a call from someone was due an immediate response as it meant to him that there was a need for him to cover someone's shift or there was an emergency occurring right then and there. To Bobby, this extended to practically all facets of his life with the order of immediacy as: email<text messages<phone calls. This sentiment contrasts with Stewart's thoughts on how all forms of communication are due an immediate response and this is expected from senders.

In the past decade, social media websites have become quite popular, encouraging individuals to display their life online and connect with others. Websites such as Twitter, Tumblr, Instagram, Myspace, and Facebook allow people to share and communicate with one another, sometimes being the only link between two people. In fact, it is a common joke that participants have connections only through Facebook and are only "Facebook friends." All participants mentioned social media being an important function of their mobile phones, usually in their top three uses of their mobile phone. These websites facilitate connections between participants and their entire social network. Friends, family, and acquaintances share aspects of their lives on these websites, updating others as to what is happening in their lives. In regards to social media on the mobile phone, Stewart stated, "It increases our connectivity. Some of the friends I have I would have never had if it wasn't for-for Facebook... and it-it increases our interaction..." Michelle stated that through the use of Facebook that she was able to stay in touch with people globally that she has met in her travels. I will not argue against connectivity increasing through these means but are these connections strong enough to be relied upon in times of struggle and strain? I think that social media outlets give us the impression of having a

large and fortified social network but that compared to those individuals a person will take the time out to call, text, or meet with in person, are relatively weak. I'm not saying all "Facebook friends" aren't able to be relied upon, but that many may be just acquaintances referred to as friends.

With social media, as well as other asynchronous forms of communication through the mobile phone, the user has the ability to present himself however he wishes. The best example of this is the Facebook profile which gives a person control over what pictures are presented in their profile and how they should describe themselves to others through the use of status updates and biographic information. Communication through social media, text messaging, and email gives users the time to prune their messages to present themselves how they wish. Mark referred to the process as "presenting your best self." With the time to tweak their appearances, as opposed to voice calls and face-to-face communication where a person has to react immediately, a person has the leeway to be who she wants to be in public or in the company of certain individuals or groups. Through my interactions with students over my time at GSU I have heard people become upset by how some people will be more crude or crass through asynchronous communication because they have their device as a mediator. They are not speaking to a person really, but are inputting information into their phone which will be sent to another phone, finally making to the other person. This impersonal communication may cause people to say or do things on their phones that they would never do in person.

Communication via the mobile phone can be quite different than face-to-face interactions in a number of ways. Without body language and context, texts and emails may be misinterpreted. A comedy sketch from comedy group Key and Peele demonstrates that a text message can be interpreted in completely different ways depending on the perspective of the user

(Key and Peele 2014). To add intent and context, the use of emoticons can be very valuable in conveying detail. Emoticons are punctuation and other keyboard symbols (@, #, \$, etc.) put together to represent faces generally with the emotional state the user wants to get across (happy =] or playful ;) or frustrated >\_<).

Another difference is that the user has the choice of when to respond to incoming messages, although the long delay of a response can be interpreted by the sender to be indicative of disinterest. In the anthropology graduate lounge, participant Mary received a message on her phone and decided to flip over the phone instead of answering, stating “I don’t wanna talk to him.” Paris also stated that incoming messages didn’t deserve an immediate response and that the knowledge of someone attempting to contact you is enough to know that they show interest in keeping up to date with her. Still, ignoring contact for too long can lead to a response such as this that I heard from a student in class who said, “My friend is so flakey, she says to text me but she never texts me back.” Participant Lindsay felt that immediate responses to asynchronous communication was necessary, and that not doing so can cause her worry over the individual. In her usual, sarcastic tone she said: “Listen: I sent you a text message like five minutes ago. The very fact that you haven’t responded is insulting. I’m worried.”

The mobile phone’s communication is also not limited to the device itself. Participants expressed that the mobile phone facilitates face-to-face interactions with others by arranging meetings. Cory mentioned that he gets out of his home more often through the use of his mobile phone by “arranging playdates” with friends. Most interviewees texted me in order to arrange a time and place to meet. Generally, at the time the interview was supposed to take place, there would be a text exchange or phone call to establish where each other was, and notify each other of our arrivals. Especially through the use of Facebook invitations to events and general get-

together, Cory and Mark stated that they always had something to do if they wanted.

Participants are able to hyper-coordinate with others to keep plans fluid; changing dates and times, people involved and locations to suit the needs of the group (Katz 2005). When one plan falls through, hyper-coordination allows the individual to make a new plan with others and do something else to fill that time. In an instance where Felicia planned to go to the public pool with a friend, she found out through text that the pool was closed, which immediately allowed her to create alternate plans to go to the mall.

There is oftentimes a blend between use of the mobile phone and face-to-face interaction. Not only does the mobile phone assist in getting together but it also becomes a conversation piece. At times, it is sort of a communal activity where people gather around a phone or phones to spend time with one another. Tia, Bobby, Stewart, Mark, and Joan mentioned the use of their mobile phones to show pictures and videos to others in their physical presence. Bobby, in particular, showed me videos of professional paintball games via his mobile phone after our interview concluded. One particular instance of this communal phone use was in the GSU student center. Three young women were planning an event with one another, using their mobile phones to research venues for their plans, and included friends outside their group to help them plan using text messaging.

With all of the communicative abilities of the mobile phone, there is a possibility that the phone is replacing face-to-face interactions. Although this wouldn't always be the case, as seen in the above paragraph with mobiles as a facilitator of face-to-face, it still might be satisfy ones need for social interactions. While Kyle has stated that he used his mobile phone to help him meet up with others he also mentioned that through his mobile phone he doesn't always have to be physically present with others to spend time with them. Kyle said, "I don't like being around

large groups of people so being able to be in contact with people but not physically near them is enjoyable to me.” Felicia shared a similar thought when she expressed relief when plans to get together with others fell through.

Everyone lives so far away and we make plans through the phone or anything like that and it’s like ‘ugh I don’t feel like going, we just talked, it’s cool’ ya’know? That’s really bad, it’s so uncaring. No but I mean in some situations it can make it good. Like it helps you keep in contact with family far away like I said before. But for people that live relatively close it’s just “hey let’s get together”, “okay”, “oh it’s that time, I don’t wanna go.”

Even though she stated that it was uncaring, Felicia still mentions that they had just communicated and that might be enough for her.

Getting together in the same physical location as other people is great for bonding and people generally get an uplifting feeling by having some intimate contact with one another. Sharing stories, ideas, and having a laugh with one another in person is part of what makes us human I believe. But is there a difference between that face-to-face bonding and communication through a mobile phone or other digital channel? This question was brought up by Mark.

Mark: Could anyone say that having a conversation with someone is a waste of time? I don’t think- even though its texting as a medium I feel like you can’t say that’s in excess of use because what’s the difference between people having a conversation for hours and someone having a conversation digitally?

Ryan: Do you think there’s a difference?

Mark: There’s not a difference. It’s just a preference between people. Some people just like talking over the phone and some people just like talking face-to-face.

Ryan: Earlier you said that if people are using their phones in excess it was a problem. What did you mean by that?

Mark: This is more of a personal opinion: Genuine human contact, like face-to-face contact is a healthier way of contact.... because you’re able to read social cues and just have a- it’s a very different experience. And if you just tend to shy away from actual engagement with people you forfeit this aspect of interaction that could benefit your mental health. If that makes sense.



Ryan: So face-to-face communication is... healthier?

Mark: Yes I'd say it's healthier. I don't know why I would say it's healthier. I just have this feeling that it's healthier.

Although Mark couldn't quite describe why he thought that face-to-face contact was healthier than communication via the mobile phone, it seemed to be almost his gut reaction to his own question.

In "The Breakup 2.0" Ilana Gershon asks this sort of question of whether different forms of communication (i.e. text vs in-person) were valued and perceived differently (Gershon 2010). Why would someone feel worse about having their relationship ended via a text message versus doing it in person? I think it has to do with the mobile phone as an impersonal medium as participant Shirley pointed out during her interview. In her dealings with Facebook and keeping in contact with others via this medium she stated, "I dunno if I'd say it was less social it's just less personal."

Mobile phones have changed the way GSU students communicate with one another. The multiple channels in which students can choose to connect with others (whether through the mobile or face-to-face) alone inherently changes their communication. Contacting others and being contactable may be both a blessing and a curse as communicating with others can be easier via the mobile phone through having options of how to communicate but may create a standard of communication where you should always be available to talk (Levinson 2006; Ito 2005; Gordon 2006; Green & Singleton 2009). There is even the possibility that mobile phones can replace face-to-face contact but it is unlikely that students will never converse with those in their immediate vicinity. Still, the increased options and availability to communicate will have repercussions on these students as well as other mobile phone users as they continue utilizing

these devices. Future studies will hopefully uncover just how communication will continue to change.

#### **4.2.3 *Always there***

The mobile aspect of the mobile phone means that individuals always have the ability to carry their phone with them, and most often that is what they do. Participants expressed a need to have their phone on them all of the time in order to stay connected with others and have access to its functionalities. The fear of emergency situations, in particular, leads participants to believe that they must have their phone when going out in order to stave off isolation and feelings of helplessness.

To determine just how often their phone was available to them I had asked them if they went without it. When asked whether or not they turned their phones completely off at all, most said that they did not, only doing so when they intended to fix their phones (by turning it off then on again) or using airplane or do not disturb mode to cut off their signal. Reasons for not turning it off completely were due to utilizing other features of the phone or just because they did not want to be out of contact in case they were needed or out of curiosity's sake.

For some participants, their mobile phone was the first thing they saw in the morning and the last thing they saw at night. As some people use their mobile phone as their alarm clock, it makes sense that they would interact with their mobile phone before anything else in the morning. Participants who brought up their use of their phones in the morning and at night were Mary, Bobby, Joan, Tia, Shirley, Lindsay, Stewart, and Paris. Many of these participants claimed that they used their phones to help them wake up through use of it. Lindsay stated that "It's my

alarm clock, it's also what I use to go to sleep because I'm still playing music but nice soothing music... in addition to the whole alarm clock waking up I just sit with it and kinda stare at things for a while until I'm fully awake. Like Instagram, oh look at that. Okay I can do the day."

Similarly, Mary stated that "every morning when I wake up I look at my phone slowly and if you talk to me before that I'll cut off your head" as well as Bobby stating that "I do use it when I wake up. Look at news and stuff..." When asked where she used her phone most, Joan stated:

um... probably in bed, like when I'm laying down. Or in the morning when I'm waking up [okay]. Things I'm not really proud of because I know that like before you go to sleep it's best to not have been staring at a computer screen and it wakes me up and so I've been trying to do better about that. But that's probably most often umm... but yea mostly in the mornings I just kind of go through and check everything umm... I'll read notifications...

Paris also has had similar experiences with her mobile phone:

I wake up in the morning, I woke up like this and I wake up like reading my Tumblr. That's pretty sad actually, that's what I did this morning... that's terrible, that's the first thing you do in the morning? You go to Tumblr and you go to Instagram but I guess it's how I wake up ya'know? I'm still kinda like heavy lidded so I'm just like 'oh! Drowsy is kinda getting kicked off a little bit.

Both participants had stated that they are not proud of their actions or that it's a terrible practice perhaps due to the mobile phone being always there in their lives. Still, the mobile phone can be a part of one's daily routine as Stewart had brought up: "[It's part] of my daily life. Wake up, ya'know take allergy pills, check the phone, go to the bathroom, check the phone, make breakfast, check the phone while breakfast is cooking, go to bed- supposed to be in bed, checking phone ya'know. It's just- it's just part of the daily routine now."

As proof that the mobile phone is "always there", participants have claimed that it is difficult to pinpoint exactly where a mobile phone should and should not be used. When asked what were appropriate places and times for use of her mobile phone, Tia said "well that's a hard question because nowadays the lines are really blurred when you can use your phone." The

blurred boundaries of mobile phone use was confirmed by Felicia and Mary when asked the same question on appropriateness. According to Felicia “you can use it anywhere” with Mary sharing that sentiment. She stated that appropriate places were “everywhere, there is no limit... I mean I can give you a theoretical nonsense of when it’s proper and when it’s okay to use your phone but in reality I use my phone all the time if I can get a hold of it and if I want to.” No matter where you are on the Georgia State campus it is possible to see students using their mobile phone. The library, turner field shuttle bus, student center, university center, recreation center, courtyard, college law library, classroom south, university lofts, as well as Langdale, Kell, Sparks, Patton, and Dahlberg Halls were all places where I personally witnessed mobile phones being used. Participant Mark stated that:

People always need a screen in front of them. Even in the bathroom. We live in a society where we need to have something in front of us constantly. We can’t not be interacting with something. People are always on social media. People are constantly taking ‘selfies’ (taking a picture of oneself using the front facing camera on their phone) somewhere... so just having something to interact with is common.

The mobile phone can, and may be, everywhere their users are. Stating that people need a screen in front of them at all times is an exaggeration but the constant use and presence of mobile phones may be indicative of its impact on users.

An interesting behavioral phenomenon described by several participants (Adam, Cory, Stewart, Bobby, and Felicia) was the “pocket check.” This involves looking through one’s pockets before leaving the house to make sure they had their necessary items for the day such as their wallet and keys. My participants made sure to have their mobile phones on them before leaving their house for availability throughout the day. Participant Stewart had stated that “Actually I forget my wallet more than I forget my phone.” In the Georgia State Library I had actually seen a mobile phone case that doubled as a wallet, with their credit cards neatly

organized on the back of the device. When leaving the house, grabbing ones phone and wallet at the same time must be helpful for people like Stewart.

Two participants, Kyle and Tia, went as far as to say that their phones were connected to them. Kyle had stated his phone is “pretty much a part of me” while Tia said “it’s like imbedded into my hand”. Based on the context of the conversation I took these statements to mean that these interviewees considered that based on how they almost always have their mobile phones on them that they were incorporated in their being. The phone goes where they go. Throughout my observations on campus I had noticed many people holding their phones in their hand without interacting with them at all. They would just be “embedded” in the hands of students. I had asked Lindsay if she was familiar with this and asked her what it may be for and she replied that she does that same thing and it is likely done to be more available and ready for when someone was to try and contact them. Michelle shared a similar feeling to Tia and Kyle when she worked as a real estate agent. Since she could be contacted at any time to schedule appointments to show houses to customers, and would need to answer to actually get work from these potential homeowners, she needed to have her phone readily available at all times. She described the experience as “anxiety provoking”. To be constantly connected to this device that connects you to so many others can be quite overwhelming for participants.

One participant, Cory, pointed out something interesting about how his mobile phone is and has been always there. Since Cory has had his mobile phone since he was 13 years old (23 now), he doesn’t really remember what his life was like without it. Since most participants have had a mobile phone for about ten years, it might be difficult for them to consider their lives without a mobile phone. Considering this, it could be understandable that some participants felt

as though they were interconnected with their mobile phone or that they have become so ingrained in their daily life.

If the mobile phone is always there, what does that mean for my student population? Constant connectivity through a mobile phone may sometimes feel like a ball and chain attached to the user. It doesn't seem to feel this way to most of my participants though. Always having the functionalities of a mobile phone can even be uplifting to some, assisting them in their day to day life. Either way, the device can become attached to the user and contribute to the formation of their identity (Miller 1987; Turkle 2011, Fortunati 2005b).

#### **4.2.4 *Disconnect***

While participants have expressed a desire to always have it on them, what happens when they go without their mobile phone? I have noticed a trend in how my participants have become disconnected from their phone: either it is taken away from them or they purposefully rid themselves of it. The first category of disconnection includes such misfortunes as losing a phone, having a phone break, having it stolen from them, as well as having to leave it behind for a particular reason. The latter reasoning explores the desire to distance themselves from their mobile phone for numerous reasons.

Participants having their phone taken away from them unwillingly have had mixed feelings toward this lack of their device. Generally, those participants unfortunate enough to have had their phones break, stolen, or lost have expressed that they were upset by it. When their mobile phone was taken away from them they felt "listless without it" as Stewart put it or feeling of "lacking" as Mark had said. When Felicia had to attend court she was required to leave her

phone out of the courtroom. She stated that she “felt like a part of me was missing” perhaps due to the lack of having her phones functionality on her.

At the same time, when required to turn her phone off while working at her internship she feels glad that she “get[s] four hours away from it”. Shirley, when abroad in Europe, wasn’t able to bring her phone with her and had mixed feelings toward her experience away from the device. On the one hand, she felt anxiety from being unable to be in contact with others and worried that in an emergency situation should would be alone and in dire straits. On the other hand, Shirley felt like it was a freeing experience and was able to be more “present and in the moment” while exploring this new continent. It seems that while participants expressed extreme annoyance, frustration, and desperation when having their phone taken away completely, it was also an uplifting experience for them... “as long as I get it back soon” as Mary had put it.

Some participants expressed a need to get away from their phones from time to time. Paris explained this as “cutting the cord,” detaching from the mobile phone and the connective nature of the device. When she comes home after work and school she sets her phone aside from her in order to remove stress from her life. Lindsay makes use of the “airplane mode” feature of mobile phones, where the functionality of the phone remains available but you are not able to receive incoming calls or texts. At work, unloading shipments of clothing for a major retail store, Lindsay uses the “airplane mode” to listen to music through her phone without getting in trouble from her bosses for communicating with others.

Adam set aside weekend “adventures” where he would travel to his friends’ houses or to nature parks without his mobile phone. He stated that he felt the need to disconnect from the rest of the world in order to focus on the task at hand. Tia disconnects in a similar manner; she leaves her phone at home while riding her bike or going for a run around her block. In doing so she

feels more invested in her activity: As she put it, "...when I'm riding a bike, or when I do another activity like that, I usually- I don't even listen to music because I'd rather be focused on everything else that's going on around me..." Michelle also feels the need to disconnect but in a different manner. Instead of having her phone away from her, or turning it off, she drains the battery so it is unavailable. She explained, "I'll purposefully let the battery die so I can act like 'oops I'm sorry, my phone was dead I'm sorry I missed your call.'" She drains it because she said she feels guilty for purposefully turning it off, and having it unavailable, in order to disconnect from others. In this way, the dead battery seems more out of her control. She stated that she would rather have a landline telephone for her home with an answering machine to check at the end of her day. This is not quite an option for her as she feels that she should be connected and feels obligated to be there for family especially.

### **4.3 Reliance**

The variety of uses the mobile phone can facilitate, as well as the possible dependence on this technology, is a common theme throughout my research. In what ways is the mobile phone used? How reliant are participants on the uses of the mobile phone? These questions are at the heart of this section.

I have already discussed the communicative aspects of the mobile phone but its capabilities are more numerous than the simple phone call or text message. In fact, participants have described the phone, with all its capabilities, as being a necessary tool to own in today's world. The mobile phone has also replaced existing technologies in the life of my participants. With the numerous functions of the mobile phone, it is understandable that people rely on the device to meet daily needs.



### **4.3.1 Necessity**

Several participants have deemed the mobile phone as a necessity in their lives. They need the mobile phone to stay connected, to work, and to have a social life. Cory mentioned that he would not have a social life without his phone, and the only way he has stayed in contact with his friends is through his mobile phone. Through the use of texting with others, checking Facebook invitations to events and get-togethers, and since he doesn't have any other phone, his social life can be directly connected to his mobile phone. I suppose that there is a standard at this point in time, where the pervasiveness of the mobile phone (that almost all people have one) means that without one you are lacking. When asked what having a mobile phone means to Mary she stated:

It means being connected and informed and in touch and "in" and if you don't have one you're "out." I'm "in," I need a phone. Why does a phone make me human? This is what I need to be me. I need- you're making me have an identity crisis right now! You're making me realize how much I need my phone and use my phone. Why do I need to take a little brick to help me go about my daily life? It's why I'm keeping it charged.

Others had similar takes on the mobile phone as a necessity. When asked whether she usually had her phone on her, Paris she listed multiple reasons why she would always need it on hand, including: checking her bank account, getting directions if she was lost, and if she needed to get in contact with others she would have it with her. In regards to work, Kyle, Stewart, and Michelle mentioned that it was a necessity for their jobs. Kyle needed to be in contact with his employer because he was "on call" and may be called into work at any time. Stewart did freelance work outside of school so he needed to be available for contact by potential employers in order to get work. When Michelle was a real estate agent it was necessary to have her mobile

phone on her at all times because her paycheck depended on whether or not she could find potential homeowners.

Tia stated that the perceived necessity of the mobile phone is an illusion. She came up with a hypothetical situation where “everyone just [had] to put their phones down for a day, like couldn’t use them.” In this scenario she wondered, “What kind of mayhem would ensue, because it’s amazing just how like conditioned we are to think we need it.” Yet when Lindsay’s phone broke she remembered thinking, “I need this, I need this... phone to work and do everything that I need it to do,” and mentioned that, “I feel like you absolutely need... a phone... if you’re an adult. Cause I feel like we rely on it so much now...” When I asked Adam why he got his first mobile phone he replied that:

Adam: I think it’s just the necessity of our times. There is a necessity of having a phone... I mean we live in a time where it’s absolutely necessary and we have to learn how to navigate that and there was no problem, I mean...

Ryan: Why did your mom give you her phone though?

Adam: Because I needed it to socialize, I needed it for people to contact me. At that point, everyone else had one and it was inappropriate not to have one.

Ryan: Okay.

Adam: So like I said, it’s our times that I feel that necessitates a cell phone now. It’s not like we need it because some people have it... it’s an excuse that now you need to have a phone. Like work, you have to have constant email capabilities now to be like, ya’know a lot of jobs need like uhh as a minimum requirement. Like you need to be within contact with email. So now, like, I need a computer around or I need a smartphone.

Ryan: Kind of staying in the loop.

Adam: Yea, so I think yea, we don’t need it but it’s a lot of pressures around us, almost necessitate it. So that’s... that’s why the cell phone I feel like. Now texting is a second form of communication almost. Like if I didn’t text I wouldn’t know how to talk to people almost.

It seems that what Adam is trying to get across is that with the ubiquity of the mobile phone among his peers there is a standard of communication and connection where without a mobile phone there would be difficulty in communication. Later in our interview he begins speaking of time spent with his friends, where he would be completely out of touch since they communicate through their mobile phones. Participant Stewart brought up the point that there are almost no payphones around anymore and it is hard to find any landlines when outside the house. To stay in touch in a way that is comparative to most others, owning a mobile phone is necessary.

Feeling the need to have ones mobile phone on them constantly, or just to have *a* mobile phone, has intense implications for the GSU socio-cultural system. When almost every student has a mobile phone because they feel they need to have one can lead to the mobile phone becoming a standard in that cultural system. As Mary stated, you're either in or you're out in terms of fitting into this society. Mark had gone as far as to say that having a mobile phone was like having a license or right "to be in this era." If there are major socio-cultural consequences to owning a mobile phone, whether it be a completely changed system of communication, feelings of attachment, addiction, and reliance, or losing one's focus on anything but a mobile phone it affects every student. Without the option to go without a mobile phone there is a greater chance that individuals will not be able to understand its effects on them due to a lack of comparison.

#### **4.3.2 *Replacement***

It is possible that the increased reliance on the mobile phone is due to its enhanced capabilities within the last few years. There have been theories as to the substitution of existing technologies through new forms of media and the improved functions of new media replacing

the old (Reagan & Lee 2007). With a device such as today's mobile phone, the range of its uses causes other, already existing technologies, to be used less often. It is a matter of convenience; why use two devices when the first does what the latter does and more. The mobile phone may also replace activities that would normally have to be done in person as well.

Several of the uses participants have discussed include: listening to music, using it as an alarm clock, as a camera, as a calendar, a voice recorder, for taking notes, as a to-do list, as a watch, a flashlight, a gaming device, for shopping, as a calculator, for watching TV and movies, as a grocery list, and for banking. Through the mobile app store on most smartphones today, you can find many varieties of functions for one's phone such as those listed above. As Paris stated: "It just does so many things. It's such a portal. Endless possibilities." I will only discuss a few of these functions discussed by my participants based on the amount of overlap in responses (only two participants discussed the calculator function while eight participants mentioned using their phone as a camera) as well as the varying levels of detail they gave on each.

Listening to music through a mobile phone is quite important to my participants as I have found through my interviews as well as my observations. Participants Kyle, Tia, Mary, Mark, Bobby, Felicia, and Lindsay mentioned that they use their mobile phones for listening to music during their commute. On his way downtown to the GSU campus via Georgia's public transportation system, MARTA, Bobby usually listens to the internet radio station "iHeartRADIO" to occupy himself on the long trip. I have heard of other internet radio stations that have been used on my participants' mobile phone throughout my time at GSU including: Pandora, Spotify, 8tracks, and Songza (each having their own app). Kyle stated that listening to music on his mobile phone while working helped him to stay focused on the tasks at hand while Paris likes to listen to music on her phone to relax at home.

In terms of walking around campus, Lindsay stated, “I need music, otherwise this whole city would be really depressing. I dunno, it’s like I’m in a music video, all the time.” In fact, I have observed many students around the campus with headphones in their ears connected to their mobile phones, though they may be listening to other forms of media besides music. Mark stated that while downtown “I listen to the city every once in a while but it gets kinda boring after a while. Hearing nothing. I feel like music gives it a little more oomph.” Perhaps Lindsay’s and Mark’s message of spicing up one’s life with music rings true for many GSU students both on and off campus. The sheer amount of headphones in mobile phones that I have seen in all areas of the Georgia State campus makes me believe that listening to music via a mobile phone is popular and quite common.

Use of the mobile phone as a clock is a function that many of my participants used. On many mobile phones, both old and new, one of the first things you will see when you check it is the present time. Normally it is one of the biggest features on the “locked” screen (before actually accessing the functions of the device). As many of my participants have mentioned carrying their phones with them very often, they often do not feel the need to carry a watch and use their phones to check the time instead. Stewart called his mobile phone his “timekeeper” and often participants will check their mobile phones in order to check the time, not just to respond to incoming alerts.

The alarm clock function on mobile phones appears to be quite popular among my participants. The first thing several participants do in the mornings now is silence their alarm and interact with their mobile phones before starting their day. One participant, Joan, summed up the use of the alarm clock succinctly. “I use my alarm clock. Don’t even have a real clock and its funny because I stayed somewhere one night and my phone died and I had no way of waking up

in the morning because I always use my phone for my alarm and I was like ‘what the hell am I gonna do?’

Several participants mentioned that they check their bank accounts often through their mobile phone, moving money around when needed. Kyle stated that before making any purchase in physical stores he would check his bank account through his mobile phone to assure that he would be able to afford it. He also mentioned that banking saved him from an unfortunate situation. He explained, “A friend of mine had a car break down and we were at- in Helen, Georgia and being able like to kinda get on my phone immediately and transfer funds from my savings account into checking to help him get a new tire umm it would have been a long while before we had been able to move and then we were on the road again in five to ten minutes.” Lindsay stated that she obsessively checked her bank account to feel at ease because she was worried that the account might become overdrawn.

Participants also mentioned that they used the camera function on their mobile phones often. Cory stated that while participating in activist protests he would use his mobile phone to record “cops harassing us” through his mobile phone camera. On the topic of the mobile phone camera, Michelle said, “I use my camera a lot. Umm I love my camera actually. And so I used to be terrible about not taking pictures when I had to carry a regular camera but now I love it, I love taking my own pictures.” The camera function on the phone lets the user take pictures wherever she may be, if she has her phone on her. Shirley brought up an intriguing use of the camera on her phone through an app called Star Chart. Using the app, you can point your mobile phone at the night sky as if looking through a lens to see what the sky would look like with no light pollution. The app gives you detailed information on stars, constellations, and planets visible through the phone. With the mobile phone you can even replace the sky with a digital equivalent.

The mobile phone may even replace one's memory in certain instances. Contact information for others is stored on ones' phone including email addresses, phone numbers, home and work addresses, among others. In the past, the use of rolodexes and other pen and paper resources as well as rote memorization was used to keep others contact information but this can now all be stored on the phone itself. Reliance on this ability can be dangerous though, for if the phone is taken away from the user they may not be able to recall others contact information, leaving them in a bind.

### **4.3.3 GPS**

One particular function of the mobile phone that may be placed under the umbrella of replacement, but deserves special mention, is the GPS function. Participants expressed that their ability to navigate through their world was due to their mobile phones. In terms of public transportation assistance, specific applications for public transit assisted Tia and Kyle in navigating major cities. Tia has used the MARTA app, detailing the train and bus schedules for Atlanta public transportation, in order to effectively use this form of transportation. When visiting Washington D.C., Kyle downloaded a D.C. public transportation app "in real time" when lost in order to navigate this unfamiliar city.

Mary, Michelle, and Lindsay each explained that the GPS capabilities of the mobile phone was the only way they would not get lost driving throughout Atlanta, and Georgia in general. While owning a standalone GPS device, Mary preferred using her mobile phone to the device because she said that it was more effective and more available because she would always have it on her. Michelle, when asked if her mobile phone helped her in life or death situations joked, "I feel potentially every day 'cause I use my GPS so often that maybe I would just drive

myself off a cliff without my GPS.” Lindsay shared a similar sentiment, also joking, that she was “in constant need of maps. Even if I’m just going up [Interstate] 75 I’m like something might change and sometimes ya’know the road will split and it’s like ‘maybe- maybe you should go on 45 west’ and I’m like ‘what’s that?’ For some reason I need Google maps to be like ‘don’t do that... don’t do that’.”

Meanwhile, Joan said that through the use of her mobile phone’s GPS capabilities, she became much more comfortable with directing herself through Atlanta. She used her directional capabilities, and in doing so, began to understand how she would be able to direct herself. Still, the majority of respondents felt that they relied upon the use of the mobile phones GPS. Adam was ready to point this out to me in his interview:

We rely on GPS, umm example: where I think a lot of my friends don’t know how to take directions or give directions because all they do is plug it into a GPS and boom. And if that GPS happens to mess up they lose all sense of control and calm so I don’t like that- seeing that, and I don’t want that to be myself so I always make sure I look up directions and see a map and look at alternative routes. I think the smartphone has just this capability- capability not necessitates, but it’s a strong temptation to make us duller.

As tasks are delegated to a mobile phone, we may become reliant on its capabilities and would find it difficult to perform those tasks without it. Adam claims that the mobile phone may make us duller as Lindsay jokes about having her mobile phone guide her into not doing something stupid because it can be easy to give up control of the little chores to these devices. It’s one less thing to worry about.

Mobile phones can replace so many other objects and activities that it can become even more central to the lives of its users than it had with regards to communication, connectivity, and contact. It removes the need to take multiple devices (a camera, an alarm clock, an mp3 player) with you and instead makes these abilities more accessible. With the latest smartphone, Joan



stated that she used her mobile phone more often now that it could do so many things. The reason I have chosen to include this theme of replacement in the overall category of reliance is because it replaces more and more things in these students' lives, creating a further attachment to their device. The concept of not being able to navigate oneself or recall others phone numbers without their phone can promote use of their device further and ingrain the mobile phone into themselves to a greater degree than with older (less capable) mobile phones.

#### **4.3.4 Attachment**

With the data I have collected, and drawing upon other studies on the topic (Park 2005; Reagan & Lee 2007; Vincent 2005), there seems to be a degree of attachment and addiction to using mobile phones. The degree of use (how often it is checked, handled, rate of use), as well as the variety of uses of the mobile phone, has led to a strong attachment to the devices in some users. Throughout the GSU campus, I have observed usage patterns of the mobile phone and it appears to be used extensively. Individuals walk and talk on the phone, walk and interact with the screen, sit and talk or interact, talk and interact on/with the phone while in discussions with others, or just hold the phone without interacting with it at all, having it readily available. It seems as if the mobile phone can be integrated into any activity in which the user is a part of, and this omnipresence may be indicative of attachment.

I am wary of using the terms addiction and addictive when describing the use of the mobile phone due to the intensity of the words. Addiction, as a state of being, is casually thrown around within everyday conversation. Claims of being addicted to television shows, chocolate, music or many other benign activities has drained the impact of the word, especially when compared to psychological and physical addictions to harmful substances e.g., heroin or alcohol.

In terms of the mobile phone, to say it is psychologically or physically addictive is a possibility, but must be tested further through future studies. Instead I like to use the word attached when it comes to mobile phone use. I think that this is an adequate description considering that some participants feel tethered to their phone, Mary stated that it's like an "umbilical cord," Tia said "it's like imbedded into my hand," while Kyle described his phone as "pretty much a part of me", and Felicia said that without her phone she "felt like a part of me was missing."

Still, participants have made claims to the possible addictive nature of the mobile phone. Adam has brought up that through his own personal queries in information and communicative technology (ICT) addiction (which includes the mobile phone) there is a psychological effect to the use of mobile phones. Being notified of others communicating with you, playing games on the phone, or other activities may cause a rush of endorphins, creating a reward system for use of the mobile phone. At the same time, Michelle claims that without a mobile phone she feels as if she's "missing a limb" and that she is addicted to her mobile phone:

Michelle: It's kind of like when it's gone you feel like you're missing a limb or something. It's definitely like... an addiction! It's an addiction.

Ryan: you think it is?

Michelle: yes I think so

Ryan: in what way? Like what was your definition of addiction?

Michelle: umm so I'm addicted to coffee and if I can't get a cup of coffee I will go out of my way to get it and it's the same with my cell phone, like if I was uh or what I should say is that I obsess over it until I get it back. So if I don't go out of my way to retrieve it I'm still going to think of it a million times a day if I don't have it. 'Cause ya'know even- I wonder how many times uh just in an interview that you do like this and someone picks their phone up, look at the screen to see what's happening ya'know? It doesn't necessarily do anything but it's like "did someone send me a message?" I see that they have and I have a voicemail ya'know?

Stewart had claimed that use of his mobile phone was addictive as well, saying that it's very easy to "just pull it out" and check or use it whenever he has the time.

Discussions of loss of my interviewees' mobile phones have brought up many feelings of uneasiness, unrest, and dread. This disconnection from their device was mainly brought on by three major sentiments: expense, functionality, and sentiment. Referring to their adoption of their first mobile phone from their parents, some participants had felt dread over losing something given to them. Sentiment for their gifted phones (as well as purchased ones thereafter) extends both to the gift itself as well as the content on it. As brought up by Dr. Jane Vincent of the London School of Economics and Political Science, an attachment to one's mobile phone is likely due to the content on the phone rather than attachment to the phone as a thing (Vincent 2005).

Participant Joan described a situation where in a group texting conversation between her and two of her best friends needed to be deleted to make room on the phone for other purposes. The three of them conversed with one another almost every day in that two year span and when it came to delete it: "I felt kind of bad about deleting it because it had been like two years of our lives that I deleted." In a Sparks Hall hallway on the Georgia State University campus I spotted a flier from someone who lost his phone and was attempting to get it back.



**Figure 6: Mobile Phone Wanted Poster**

For anyone unable to read the smaller text, it reads: “contains irreplaceable pics (pictures) and contacts – including pics from last trip with my father who passed away last year as well as my cat, who also passed away last year... this is all I really care about having returned... PLEASE.” Mobile phones do not just contain software, bits of data and code, but memories as well.

Attachment to ones’ mobile phone is also due to its monetary value. Mary put it well when she described having your phone close by as “keeping track of your valuables.” When he thought he lost his mobile phone, Cory remembered immediately thinking “where am I going to find three-hundred dollars.” Participant Shirley stated that when she lost her new smartphone she was “pissed the fuck off” and when you pay around three-hundred dollars for a piece of technology, you “don’t lose that fucker.”

Attachment to one’s mobile phone, for any reason, can contribute to a user’s sense of self. Just the thought of the word attachment may imply that the mobile phone and their user are connected with one another. Discussing the mobile phone as a necessity, as a replacement of other objects and activities, and users’ emotional attachment to their device has solidified my

belief that users are reliant on their mobile phone. It is a part of them. But that is not to say that they wouldn't be able to survive without it. When these students had misplaced their mobile phones they may have even felt relieved over not being connected to all others anymore. Still, as a seemingly necessary item to have on you at all times, it is difficult to say whether it is this societal norm that causes such reliance and attachment to their device or if it is the users themselves that crave this attachment and would be heartbroken without it.

#### **4.4 Distraction**

By far, the complaint most often brought to my attention about use of the mobile phone is that it is distracting to the user. It distracts you from the people around you, it distracts you from yourself and helps you to procrastinate, and it distracts you from your surroundings. Attention is evidently affected by use of the mobile phone. So how is this distractive quality of the mobile phone navigated by those who use them? Is it that the mobile phone demands the attention of the user or is the mobile phone just a facilitator of distraction, a focus on which people distract themselves? The answer appears to be a bit of both.

##### **4.4.1 “Killing Time”**

The mobile phone, when taken with you wherever you go, offers a distraction from yourself and the free time in-between activities. When asked what his three main reasons for using his mobile phone were, Cory stated that he used his phone mostly for “killing time.” This phrase refers to an activity with no real, intended, goal in mind but is meant to pass the time. Most often one is “killing time” when she is bored and waiting for an activity to begin (where she will be actually utilizing time productively). Cory said: “Really, if I'm just- if I'm by myself

and I get somewhere early and I'm waiting for someone, or I'm waiting for something to start and I'm by myself and anything like that, I'll be on my phone... just to kill time basically.”

Some of the most often cited areas to “kill time” in were waiting rooms, while in line for something, while walking somewhere, on public transportation, and during one's time in the bathroom. My observations around campus verified some of these areas for mobile phone use, namely the shuttle taking students to campus from parking on the Turner Field baseball stadium, counseling and testing center waiting room, and seeing people using their mobiles in outside public areas. I was given second hand information from Mark, Shirley, and Michelle about use of their mobile phone while in the bathroom. Tia also mentioned using her mobile phone while eating alone to entertain herself, as sort of a TV dinner. While in the university's student center cafeteria I saw this use firsthand as students used laptops, tablets, and mobile phones to watch or do something while eating.

While I wasn't able to see what many students on campus were doing with their mobile phone while they were “killing time” as I wished to respect their privacy, my interviewees explained some of their activities used to pass the time. Shirley explained that while using the restroom she and others would “scroll through Facebook because you have nothing else to do.” Some participants took their free time to read books and articles on their devices, both for school and out of general curiosity. Games on ones' mobile phone also preoccupy my participants during their down time.

Waiting times, whether it be in a line of people, for a person's arrival, or for an event to start, are marked by use of the mobile phone. When there is nothing to do, the mobile phone offers a variety of activities that allow the user to take their mind off of the situation at hand. Comedian Louis C.K. has described this phenomenon as a cause for the lack of introspection on

the part of the mobile phone user (Youtube 2013). When inundated with this technology there is no time, or less desire to spend time, for introspection. This is not necessarily true, as the mobile phone does not make us “duller” as Adam puts it, but it is the temptation of use that is an issue in terms of how one spends free time.

Procrastination is another form of this desire to waste time on the mobile phone, at the expense of focusing on other duties, e.g., work, relationships, or meditation. All participants have claimed that they have had their mobile phone available while they are working or studying a majority of the time. This allows them to be disrupted in their focus on the task at hand. When asked how she viewed her use of her mobile phone, participant Mary stated: “...I guess it’s normal. Outside of when I’m- when it’s helping me procrastinate... honestly the most time I spend on my phone is when I’m trying- I’m supposed to be doing something and I get distracted on my phone... going through Facebook, Twitter, the news...” At the same time, this distraction can be helpful in a way. Michelle mentioned that playing games on her mobile phone helped her to lose focus on the stressful events occurring in her life.

#### **4.4.2 Focus**

Besides the mobile phone’s distraction from the self, it also distracts the user from the physical world and the people around them. To confirm this suspicion I had participants describe how and when they would use alerts/notifications on their mobile phones, as well as where and when it was appropriate to use them. The incoming texts, e-mails, phone calls, social media alerts, game alerts, and alarms demand the attention of the mobile phone user, testing their ability to focus on what they were doing at the time of the alert. Few participants had notifications with

sound that would ring/beep/buzz when they received an incoming message and most had their mobile phones vibrate instead.

All participants stated that the most inappropriate time to use the mobile phone was when they would be interacting with other people that are physically present. When someone is around others, participants argued that they should not use their phones because it would be rude to those others. A sign of respect to others with whom you are spending time is putting your mobile phone away and abstaining from use during that time. If someone uses their mobile phones around others while socializing with them, it is taken to mean that whatever is happening on the mobile phone is more important than the person you are with. When someone uses their phone in front of him, Bobby asks, “Are you paying attention to the phone or me?” Similarly, Michelle believes that use of a mobile phone while with someone else interrupts face-to-face interaction and even when they are not explicitly using it they will think about it and want to check it at some point during their meeting. Joan is conflicted on the mobile phones effect on communication while in the company of others, claiming that if ones phone is out then they will not be able to pay attention to both their device and her.

I feel like it bothers *me* when people are like sitting somewhere and they're just like ya'know like instead of having a conversation. So I'm not like anti-technology by any means 'cause I know a lot of people are like “communication is dead!”... which I think is bullshit. Not completely bullshit, but I think that... that's not the only reason. I think there are other social forces going on that keep us from umm communicating face-to-face but I do think that we are so inundated with things on our phones that we want to stay attached to it at all times so I guess like if I'm out to dinner or something like that I'll keep it there in case ya'know there's an emergency but or “oh hold on a second I need to check this notification” ya'know but if we're having a serious conversation. ... I've been in a lot of situations where I've been sitting with someone and then they go on their phone and then they're like “oh no, I'm listening”. And it's kinda like “are you? I'm glad you reassured me because I really wasn't sure that you were”... you technically you can't do two things at once... your brain actually can't fire and do two processes at once... I guess in some ways that can make me sound a little old



fashioned but at the same time I love having my phone and I feel... ya'know a little weird when I don't have it so...

While Joan feels like mobile phones can get in the way of face-to-face conversation she enjoys having one and feels that it is not the only reason why communication today is changing or dead.

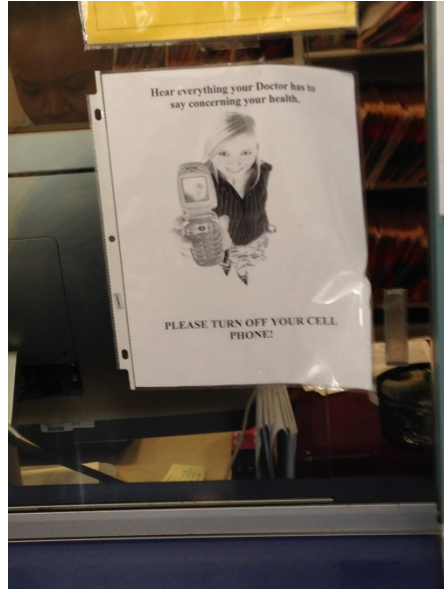
In a situation where there is an urgent notification that must be answered right away, participants stated that the user should excuse herself from the situation at hand to take care of it. Stewart mentioned that when one person excuses himself to use his mobile phone then the person or group that they are with initiates in "phone time" where everyone proceeds to check and/or interact with their own mobile phones. According to anthropologist James E. Katz, if one person uses their mobile phone then others generally shy away and pretend not to hear or see what is going on, only able to see and hear them again when they are done with their phone call (Katz 2005). Or instead of ignoring the other person they mirror that behavior themselves, I suppose especially because there may have been someone who contacted that individual.

Felicia, Paris, and Tia have all had similar experiences to Stewart's with "phone time." Felicia has noticed that when she gets together with her lady friends for a "girl night" that many of them wind up on their phones while they are together. Tia has joked about situations similar to this and says that when she wants to spend time with others she says, "Oh, let me invite all my friends over so we can all get on our phones together." When she starts to notice "phone time" happening, Paris goes out of her way to stop it. Whenever her friend gets on her phone, and she starts to do so as well, she stops herself and the other person. Adam heard of a way to get away from "phone time" during a night out at dinner by placing his and everyone's phones in the center of the table and the first person to grab his or her phones has to pay for everyone's meal. He said that it was ridiculous that people would have to make up such games with severe consequences just so he could go a night without everyone going on their phones.

When asked where was appropriate and inappropriate to use one's mobile phone my participants listed a few places and situations. Besides when they are out to dinner, participants included airplanes, movies, funerals, in class, church, a job interview, and first date would be bad places to use one's mobile phone. Many of these places specifically ask for those within the location to turn off their mobile phone. What is supposed to be a personal interaction with someone else can be interrupted by the mobile phone as is mentioned by Joan above. Use during one's college classes is slightly less straightforward and often students and even teachers may have their mobile phones out during class. Through my observations during my own classes I have seen a professor have his/her mobile phone out as well as some students attempting to hide their own during lecture. I have observed students having a phone under their desk while typing and pretending to be looking at their textbook, having their mobile phone blocked by the front screen of their laptop and another student that had their phone on top of their textbook in plain sight. Bobby mentioned that one of his professors had a policy where they would lose points from their participation grade if the professor saw or heard a mobile phone. Focusing on what is being taught is imperative to doing well in classes and the mobile phone can distract students from learning.

When I asked Michelle about how her mobile phone affected her social life, she spoke of one instance of using her mobile phone while spending time with her sister.

Umm I would say that it definitely affects [my social life]. Like my little sister is always getting angry at me for looking at my phone all the time. She's like 'we're hanging out, can you please stop using your phone' and I'm like 'I'm sorry, I have to respond, it's important' so it definitely has an effect on it. She feels neglected ya'know because I'm doing my phone stuff.



**Figure 7: Sign at the University Health Center Urging Students to Stay Off Their Phone While Seeing the Doctor**



**Figure 8: Sign at the Library Check-Out Desk Asking Students to Refrain From Using Their Phone**

Evidently it is difficult to negotiate between interacting with those physically present and others through the mobile phone. Felicia, after discussing her desire to cut back on using her phone as much as she does and that she has felt that she uses her phone less now than she used to, spoke of an interaction with her sister Angie:

I was like “Angie I’m talking to you” and she was like “I’m paying attention!” and she wasn’t really listening so I guess that’s kind of that- just like my younger-like anyone in my family that was younger than me I was just kinda like “why are you on your phone or on that gaming device. Get off of it.” Things like that. I was like I need to grow up because I do that too.

Michelle, Felicia, and Tia have all commented on the impact that mobile phones have had and will have on younger generations. As technology changes and use of ICTs becomes more prevalent, there are bound to be changes in the way we communicate.

The mobile phone also distracts the user from the surrounding environment. One specifically dangerous aspect of this distraction is the use of the mobile phone while driving. While some participants abhor the use of the mobile phone while one is driving, those same participants admitted to doing it anyway. Using a mobile phone while driving slows down the reaction time of the user, distracting them from the situation at hand, and compromises one’s safety. On campus, I noticed two men in the driver and passenger seats of a car at the four corner light near Sparks Hall, both interacting with the screens of their mobile phone. A similar phenomenon is where the mobile phone user interacts with the screen of the mobile phone to text, surf the internet, check e-mail, and most other tasks besides a phone call, while walking. The user splits their focus between looking at the screen of the mobile while also looking at where they are walking. Participant Bobby has seen people using their mobile phones while crossing roads and almost getting hit by a car. One student walking down a sidewalk on campus while reading their phone tripped on a pothole in the sidewalk and almost fell down. Felicia had

walked into a pole while using her mobile phone in the past: “It was awkward. I just kinda lost track of where I was and it happened. I was reading this text, I can’t remember what was so intriguing about it, but there was a pole and I walked in to it sadly but thankfully I did not bruise anything.” This warns of the possible dangers of mobile phone distraction

The multitasking nature of text messaging and interacting with the display of ones’ phone can strain users’ focus. Felicia mentioned that she is easily distracted by her mobile phone when performing daily activities. While cooking, doing homework, or a similar activity she stops what she is doing to use her mobile phone, especially when she receives an incoming alert. She said that when someone tries to contact her “I have to answer, I have to.” This connection can diminish users’ focus and impede them from getting things done. Mark mentions the complications of “task switching” in which a person moves on from the task they were doing to start a new task (using a mobile phone). When the person goes back to the original task, the user has to work to get back to where they had left off. When using a mobile phone and walking, especially when interacting with the mobile phones display, many people slow their movement or stop completely to switch their focus from walking to using their phone. I have witnessed this many a time, sometimes seeing students halfway down a flight of stairs and interacting with the display of their mobile phone.

It is difficult to say whether this distractive nature of the mobile phone is inherent to the design of the device or if it is the user who is responsible for becoming distracted by this machine. Although it seems that most, if not all, participants have spoken of being distracted by their device, I would likely argue for the latter. Ultimately, it is up to the individual to regulate their use of their device. That isn’t to say that the mobile phone has a distractive allure to it as it allows the user to completely ignore whatever is going on around them. In regards to actor-

network theory, mobile phones *do* act upon their users, fighting for the attention of the user (Oenen 2011).

Cory and Stewart had argued from their own personal experience that it is the user, rather than the device, that is the true distractor. Stewart had stated that his split focus on his device and whatever else he was doing was due to his attention deficit hyperactive disorder (ADHD):

I always multitask. So I'm on my phone while doing something else... like for school or something where I really need to focus [I will stop using my phone]. If it's something like- I'm just watching a TV show or something I'll get bored. And that's always-that's just me, it's my ADHD, that's always been the case. So it's not like I'm so addicted to my phone that I have to do that, it's just that I get bored easily.

Stewart's fiancée was present for his interview and had brought up how often he splits his focus between the tasks that he performs every day. She showed me a picture on Stewart's phone of him splitting his time between using his phone to take notes on a television show he was watching on his tablet.

When asked how his mobile phone has affected his work time, Cory stated that: "I don't think my phone is any more of a hindrance to my worktime than I am." He went on to say that "a phone is mainly a tool of procrastination and laziness," and "I have to not want to be doing the work that I'm doing in order to want to check my phone." To Cory, the phone is more a facilitator of procrastination and distraction than a cause for it. It is not so much the tool but how you use it.

While participants have expressed their opinions on where and when is an appropriate or inappropriate time for use of their mobile phone, it is often a contradiction to how they actually use their phone. Participant Michelle had discussed her concern for the mobile phone's distraction from those around the user, commenting on her younger family member's seemingly

constant use of their mobile phones. At the same time, as I have shown above, she still uses her



**Figure 9: Taking a Picture of Stewarts' Phone Showing a Picture of Stewart on His Phone While Watching a Video on His Tablet**

mobile phone around those she is physically present with. All participants, when describing when not to use their mobile phones had also stated that they do not follow their own rules of use. A segment of my interview with Cory sums this contradiction well:

Ryan: okay. What would you say is your general rule of thumb for not using it?

Cory: umm

Ryan: don't use it when...

Cory: yea, don't use it when you're around people. Try not to use it around people.

Ryan: gotcha, try not to

Cory: yea, we can't all be perfect

What does this mean for my participants when they are constantly distracted by their mobile phone throughout their everyday life? Participant Adam stated that he thinks "the [mobile] phone tries to take over as much time as it can really," where the device fights for the

attention of the user against whatever else they are doing. The issue is not so much that the mobile phone attempts to engulf your time but that it makes it easier to spend time on it through alerts and its plethora of functions. Distraction, in this way, can make it difficult for users to be present in the moment as participant Shirley pointed out, relating a story of her going to visit her best friend in Texas. While they almost never got to see one another, the time spent with one another still was invaded by use of their mobile phones, reducing their face-to-face connection with each other. Felicia described the use of one's mobile phone in this way as "life's passing them by."

## **4.5 Information**

The final theme of mobile phone use in the life of GSU students is the use of a mobile phone to assist in informing their user. Access to the internet through today's smartphones has provided users with the total accumulation of human knowledge (though not all of this information may be as accurate as one would like). Seeing my participants' opinions on the informational capabilities of mobile phones has given me a better perspective on how they feel about their mobile phone in general.

### ***4.5.1 "Just Look It Up"***

I have heard this phrase, and its equivalent "just Google it," many a time both on and off of the GSU campus. It is a response that gives me such frustration because I feel that it effectively shuts down a conversation. Mobile phones with internet capabilities are quite common enough for this phrase to result in the actual action of "looking something up" via their mobile phone. For example, during a conversation in which two people would discuss a topic at



length, such as breeds of dog, one person may say aloud to the other, “I wonder what is the fastest breed of dog.” The other may say, “Just look it up”, and without considering the thought for long, a quick internet search could turn up the answer. Reasoning and problem solving can be thrown out the window as one simply asks and gets an immediate answer. Comedian Pete Holmes jokes about this phenomenon of always knowing the answer to these kinds of questions, stating that without a period of time for reflection that “knowing feels exactly like not knowing, so life is meaningless.” (Youtube 2011)

Many of my participants have taken full advantage of this ability to know the answers to questions through the use of internet searches. During small arguments about the answer to a question, they use their mobile phone to immediately search for it and immediately know the answer. As Stewart said,

When I was a kid we just had fist fights settling this stuff, now you can just whip out your phone and settle the debate in two seconds... you don't have those long, drawn out fights anymore 'cause you're like “wait! We have phones... I can just check this. Why are we arguing?” So it kinda keeps conversation moving and keeps it more rapid.

Bobby shared a similar sentiment; he said, “Mobile phones make conversations go further,” and that “we have smartphones we can just look it up. Why don't you just look it up on your smartphone?” I always remember saying that when I didn't have a phone.” Tia also settled disputes using the internet on her mobile phone, looking up the NBA team with the most consecutive wins and to see if an actor in the movie *Maleficent* was also in a Harry Potter movie. She stated that her mobile phone was “just as an all access reference for things” and “you just have access to all this information so if I don't know what something is I can literally just look it up.” Utilizing one's mobile phone to settle disputes and “keep conversations moving” seems to be a feature for which my participants are very grateful.

Taking advantage of the phone's ability to look up information in real time "makes you smarter than you seem," as Joan put it. Discussing one of her pet peeves, Joan stated that it bothered her when people would ask her a question while texting or emailing.

If it's like a conversation with the phone the assumption is that they have the internet available and they'll be like "what does that mean" and it's kind of like "you have the internet, you can just google it"... if I don't know what something means I'm more likely to look it up than to ask. So, depending on who the [person] is I [might say something] like "oh I knew what you were talking about"

Having the ability to look things up while in conversations proves helpful to the user in appearing knowledgeable about a subject they may be discussing. When Michelle was without her mobile phone while traveling abroad, she stated that she missed this use of the mobile phone.

Anything that I don't know the answer to I automatically just Google it, like 30 seconds. Since my travels I realize how attached I am to it, having to go without it for a month. Especially when I'm in a situation where there's a conversation happening and I'm not following and I really just wanna Google so I don't have to look dumb so I know what they're talking about. And that's when I realized how dependent I really am upon my phone. Cause like if I'm home I'm just like casually look like I'm sending a text and I say I "oh that's right, I remember that" and I like can find whatever it is I'm trying to ya'know communicate about or whatever.

She also mentioned that when she knew she was meeting with someone new to her, she would attempt to search for that person on the internet before meeting to get a better idea of who she would be dealing with "out of curiosity." Paris utilized the ability to look up quick information outside conversations, specifically to help her cheat during tests. As Cowen notes, it is not "so much about having information as it is about knowing how to get it" (Cowen 2009:54). It seems that the phone can create a standard where basic or advanced information can be deemed to be common knowledge through the ability to look up information at any time.

## 5 Discussion

### 5.1 Human +

The mobile phones, and specifically smart phones, of today grant their user with a plethora of abilities that earlier models did not provide. While older models of mobile phones were defined by their communicative functions, allowing users to communicate with others wherever they would go, there are also many non-communicative functions that aid the mobile phone user. These features include texting, phone calls, email, as well as a calculator, calendar, and a to-do list. This tool is multi-functioning and can be tailored to fit the needs of the user.

What happens to individuals who are given access to this kind of power?

Those who own and operate a mobile phone are able to do more than those without one. As Moseley had stated, “A human with a mobile in the pocket is appreciable different from the human without one” (Moseley 2002: 37). The title of this section is “Human +” because individuals with a mobile phone are exactly that, a human plus this device and the abilities with which it endows the user. With such abilities, a mobile phone may start to become more ingrained into the life of the user since it accomplishes tasks that other devices or services did.

Mobile phones have started to replace tasks and activities that may have been handled by other tools or services such as banking or global positioning (GPS). Joey Reagan and Moon J. Lee have suggested possible theories of media substitution and dependence in regards to the mobile phone and other emerging technologies (2007). These theories refer to the tendency for newer technology to displace similar existing technology as sort of a competition of use and with continued use of that new technology, users may depend on it to accomplish their goals. That is not to say that the mobile phone completely takes over the role of other media, tools, or services in the life of an individual, but attempts to fit into those roles if it is more convenient for the user.

It's possible that the mobile phone is the most convenient tool for an individual to have, as my participants, who like to keep their phone on them for the majority of their day, report.

The mobile phone does not just replace tools and services but also more fundamental human functions. I am referring to communication and how we access information and memory. Some of my participants (Michelle, Mark, Felicia, and Tia) felt as if communication via a mobile phone may be replacing face-to-face communication for users. These participants expressed worry about younger generations being unable to speak with one another in person with continued use of mobile phone communication and growing up with access to new media. While it is possible that the communicative functions do cut into the time one would have spent communicating in person, it also allows users to communicate with one another in many situations where they wouldn't be able to get together to talk at all. As Reagan and Lee point out, new media doesn't quite replace older forms of media but the two compete with one another and split the time and attention however the user sees fit (2007).

In terms of communication, the methods with which we speak (or type) with one another vary. According to participants Adam and Felicia, texting has become the top medium for communication with those not physically present. In fact, many participants avoid calling others with their mobile phone in favor of texts and other asynchronous communicative methods. With this shift in communication due to the introduction of mobile texting, email, and social media, the way that people communicate with another has changed. Along with face-to-face communication and the phone calls of landline telephones we have more ways in which we can speak with one another and can use these new methods on the go almost anywhere in the United States as well as overseas. Asynchronous communication allows pre-existing social spheres to blend, making the distinction between places less distinct. For example: a personal message from

a spouse can be answered during worktime or a work message answered with family. Previous boundaries such as the one between work and play or between private and public have been blurred (Fortunati 2005a).

With more forms of asynchronous communication via the mobile phone it may be worrisome that communication itself has declined among users. It is perhaps more accurate to say that communication has changed rather than declined, and with more outlets for speaking with one another, communication has perhaps increased among those who own a mobile phone. An increase in communication is evidenced by Mizuko Ito's study of Japanese teenagers and their use of mobile phones (2005). When meeting together in a group setting, these teenagers would actively engage each other as well as their mobile phones in order to include absent parties into the group discussion. Those who may not be able to meet up in person can still be part of the group.

Mobile phones have also influenced users' memory and the way users access information. With an internet connection on one's phone you can have constant access to the wealth of information it may provide. Having the ability to "look up" information on almost any subject may make remembering trivial information unnecessary. This may change how users gather information and may be in direct opposition to gaining knowledge and retaining it so that it is not "so much about having information as it is about knowing how to get it" (Cowen 2009:54). Instead of accessing ones memory they can access their phone. Users delegate memorization to the phone because it can be a reference for contact information, directions, and more. After all, if it remembers this information why does the user have to remember it?

With the methods of information, memory, communication, and all other capabilities being on the phone, it may be difficult to go without it. There is an increased dependence on this

device according to how much the user replaces other aspects of their life with it. Without their mobile phone, some participants expressed that they felt as though a piece of them was missing when it was gone. This missing piece described could refer to the increased abilities they have had, sort of like an extra prosthetic limb. When it becomes a part of you and a part of your daily routine, it may be difficult to go without it.

Individuals with a mobile phone can become different than those without one. Whether this change is beneficial or detrimental remains to be seen. On the one hand, the convenience and increased ability that a mobile phone gives to users can be of great assistance in accomplishing daily tasks. The disadvantage can be that with becoming accustomed to this ability and an increased reliance on a mobile phone for the delegation of tasks, it can be difficult to adjust to being without one for prolonged periods of time. The mobile phone can become so ingrained to a user's sense of self, contributing to their sense of identity and public persona maybe more so than other materials meant for mass consumption due to their high personal customization (Miller 1987; Fortunati 2005a). Participant Paris stated that, "Life happens through your phone" because it's "how we get things done," meaning that mobile phone users replace so much of their real life activities with a mobile phone that the mobile phone can be a sort of lens that they see the world through, and a tool with which they navigate their everyday. The mobile phone can become a part of the user, possibly redefining what it means to be human today.

## **5.2 Virtual Reality**

Probably the biggest complaint about the mobile phone that participants reported is the demand for focus on their phone at the expense of their physical surroundings. This may be in reference to the people around the user as well as certain events where it may be considered rude

to use one's phone. Is the mobile phone so distracting that users have difficulty in focusing on anything but their device, so much so that it is a common problem among participants? The sort of split between actual, physical, reality and a virtual reality on one's phone may be a difficult dichotomy to navigate.

There are socio-cultural rules of etiquette on how and when to use a mobile phone as demonstrated in my ethnography as well as in previous studies by (Fortunati 2005a; Paragas 2005). Interviewees stated that they would turn their phone off, leave it at home, or at least silence it during funerals, at the movies, during a church service, and in the classroom. These places are generally defined by a speaker or presenter and a quiet audience, where attention should be paid to whoever is speaking. Still, many of my participants admitted to using their mobile phone in all of these places, even when they said that they knew they were not supposed to. The draw of the mobile's communicative and non-communicative capabilities may be difficult for individuals to overcome.

In addition to the places and times where use of a mobile phone is considered rude, mobile phone use can also be quite dangerous if used in inappropriate places or inappropriate ways. Specifically, I am referring to use of a mobile phone while driving a car or other automobile as well as focusing on the phone while walking. Focus paid to a phone while driving can be dangerous for the driver and those around them as any sort of distraction while operating a motor vehicle could cause a collision. If users pay too much attention to their phone while walking, there is the possibility that they may also collide with their surroundings. Felicia's experience with walking into a pole and de Souza e Silva and his discussion of a man almost walking off a train platform in Tokyo, warns of the dangers of a split focus between their surroundings or their mobile phone (2006). Why do users risk their safety to use their mobile

phone in precarious situations? Is the mobile phone that tempting as to cause users to endanger themselves and others? Perhaps they do not believe the worst could happen to them or perhaps the draw of being in the digital space of the mobile phone is great enough for people to take this risk.

Interacting with other people around oneself in a physical location has been interrupted by use of the mobile phone. Participants Michelle, Bobby, Felicia, Joan, and Tia told me of moments in their lives where they had been speaking with a friend or loved one, and that the other person would begin to use his or her phone during their conversation. In such a situation, Bobby questions the intentions of the other person, asking “are you paying attention to the phone or me?” Similarly, other studies have found that individuals can become annoyed by the phone conversations from those around them. Fernando Paragas, through his research on mobile phone use in public transportation in Manila, Philippines details the reactions and opinions of bystanders who tend to police these public areas through glares and shunning obnoxious users (2005). Despite these feelings of annoyance, my participants told me of situations in which they were the ones ignoring others to check or use their mobile phone.

How is it that the mobile phone can distract so much from one’s physical surroundings, even when those using them know that they may be seen as rude or disrespectful? Users may perceive their use as being more important and purposeful than others, excusing their actions due to perceived, or actual, necessity (Cumiskey 2005). This may also be due to the ideology of “killing time” as participant Cory mentioned, or the felt need to be always connected and contactable to others.

Times of boredom are marked by use of one’s mobile phone. With the abundance of functions on a mobile phone, users have many options of what they can do with free time,



especially when there is nothing else to do, e.g., waiting in line. If an event, situation, or activity becomes boring for a mobile phone user it is entirely likely that the user will interact with their phone to entertain themselves. This may even occur if the user finds the games, videos, web sites, or online communication more interesting than the person or persons with whom they are physically present.

Another reason for the mobile phone's disruption may be a felt need to be in contact with others. Through my interviews, users desired their mobile phone to be with them near constantly for emergency purposes. In case something should happen to them or others, they should have the ability to keep in touch for assistance. Additionally, other studies have pointed out the felt importance of keeping in contact with others in general, outside of emergency situations (Levinson 2006; Gordon 2006; Green & Singleton 2009). Being in continuous communication with those outside one's physical surroundings may become a standard for mobile phone users, perhaps to the point where their external reality comes second to the internal reality of the phone.

Is it the tool that causes this issue of distraction or is it the way that we use it? Participant Cory stated that attention needs to be paid to the phone for it to distract you and is just a means to procrastinate rather than a distraction in itself. Still, according to actor-network theory, while a user acts on their phone the phone also acts upon the user. I argue that the mobile phone definitely has an influence over our focus and can demand the attention of the user through its beeps and buzzes, alerting the user to incoming communication and information (Oenen 2011).

Participant Shirley brought up that the mobile phone has transformed our societal norms as the mobile has become more prevalent. She stated, "I think it's transforming the way we... the way we live that it's like appropriate now to have the phone during dinner. I remember years ago

we would always shut off our house phone during dinners and stuff but now it's like 'ehh'." The rules of when and where to use the phone are more relaxed than they had been in her experience.

There is a question of whether or not users should enforce mobile phone etiquette in public settings such as Adam's "If you use your mobile phone you pay the dinner bill" game. Perhaps the way we can navigate this etiquette and distraction is to figure out a way to blend both the digital and physical worlds more completely so they do not interrupt one another. A device that has attempted to blend these two is the Google Glass. It is a pair of glasses with a small screen in the top corner of your vision that connects to the users' mobile phone and provides notifications and information for the user in that small field of vision without having to pull out ones phone and lose focus. Research into blending reality and the virtual world of the phone may give us the best of both worlds; increased functionality without losing touch with ones surroundings.

### **5.3 Complexity of Phone Usage**

The mobile phone conjures up conflicting feelings in those that use them. Participants have swayed back and forth on several topics of mobile phone use where they would often contradict their previously stated opinions. It seems that owning a mobile phone is both a convenience and a burden. Participants expressed conflicting feelings and experiences on whether or not the mobile phone: was beneficial or detrimental, is a necessity or a luxury, connects or disconnects us, provides security or risk, causes anxiety or relief, and provides freedom or restriction. Analysis indicates that such oppositions are a reality that participants recognize, and that ownership and usage of the mobile phone, which itself is a tool with countless functions, subjects individuals to both positive and negative states.

Is the mobile phone a necessity or a luxury? Participants felt a need to own a mobile phone. Adam claims, “I think it’s just the necessity of our times. There is a necessity of having a [mobile] phone... I mean we live in a time where it’s absolutely necessary and we have to learn how to navigate that.”

There is the possibility that the mobile phone offers an advantage to those that own one over those who don’t. In some professions, having a mobile phone may be the deciding factor in whether or not you are able to get work. The Moroccan study of urban physical laborers and Indian study of Kerala fisherman brought up the point that workers with a mobile phone were able to be more readily contactable when job opportunities came up and were able to work more efficiently with a mobile (Ilhiane & Sherry 2009; Sreekumar 2011). Adam, Michelle, and Stewart also mentioned the increased opportunities for work that a mobile phone provides. Stewart insisted that owning a mobile phone was a necessity for freelance work, allowing him to rapidly respond to incoming job offers to have the same chances at that opportunity as others. Michelle had been a real estate agent in the past and required a mobile phone to be on her near constantly in order to respond to potential homeowners. Workers with a mobile phone are better able to respond to incoming alerts from peers and potential bosses more rapidly than individuals with landlines or no phones at all.

For my participants, there is increased pressure to own and operate the latest and most advanced mobile phone. The way that some participants talked about being teased for not owning a smart phone today may infer that there is a social pressure towards owning an up-to-date phone. Considering the prevalence of the mobile phone in my study population, socio-cultural pressures from peers to own one, and the competitive advantages of owning one, it is reasonable to state that there is a felt desire to own a mobile phone. It appears as if mobile

phones are perceived as both a necessity and luxury. As the mobile phone has become a standard device for practically all individuals to own, not owning one can be detrimental to one's livelihood and social standing. At the same time, it is a luxury in that the extra features that one adds to their phone may not be as necessary as the phone itself. It is an entertaining device but also one that an individual needs to function in today's society.

Does use of a mobile phone result in feeling of anxiety or relief? With a mobile phone, users are able to be in constant contact with one another, sometimes resulting in feelings of anxiety of users (Green & Singleton 2009). When an individual's mobile phone is stripped from them, it may cause anxiety, feelings of helplessness, and distress in general (Vincent 2005). Still, others felt relief when it was lost as they did not feel a pressure to communicate with others and be constantly connected. Michelle stated that, while she felt anxiety over being contacted by others, using her mobile phone to play games has helped her to distance herself from stressful events in her life.

This same connectivity can cause users to question whether the mobile phone offers them freedom or restriction. Having the ability to contact others near anywhere at any time and have the non-communicative features described in "human +" can make users powerful. They have the freedom to connect themselves and use their abilities but at the same time restricts them in the way that they can be contacted whenever another person wants to communicate with them. Lindsay expressed a need to respond to others right away when she was contacted. She did not like when others wouldn't respond to her right away as well. Michelle's and Stewart's jobs necessitated that they stay in contact with others at the risk of losing work.

One of the most common reasons for purchasing a mobile phone and having it with you throughout the majority of your day is for emergency situations (Leonardi with Leonardi &

Hudson 2006). Does having a mobile phone make users more secure or more risk prone? Just in case something were to happen to you, a friend, or a loved one, it is helpful to have a mobile phone on you to stay in contact. Stewart claims that his mobile phone was an emergency device first and foremost with everything else as an extra feature. Mark stated that “safety demands you have [your mobile phone] on you.” The immediate ability to call for help or to respond to someone else’s distress call can be both comforting and possibly be the deciding factor in a life or death situation.

At the same time, use of a mobile phone in certain situations such as when driving a car can risk a user’s safety. While a mobile phone offers security in being able to contact others in case of an emergency, users can sometimes compromise that same security through improper use. Why do users risk their safety to use their mobile phone in precarious situations? Is the mobile phone that tempting as to cause users to endanger themselves and others? Perhaps they do not believe the worst could happen to them or perhaps the draw of being in the digital space of the mobile phone is great enough for people to take this risk.

Participants expressed concern that the mobile phone disconnects them from those around them and results in weak social ties with others. This contradicts the purpose and primary use of a mobile phone: to communicate and connect with others. Communication with a mobile phone as a mediator can be considered less substantive than communication face-to-face. Interviewee Paris mentioned the use of “deep texting,” or using text messaging to talk about highly emotional and intellectually provocative subjects, and that these messages didn’t mean as much to her as such conversations would in person. Mark questioned whether communication via the mobile phone was the same as conversations in person and found that “Genuine human contact, like face-to-face contact, is a healthier way of contact.” As Shirley said, “I dunno if I’d

say it was less social it's just less personal." Still, participants reported that they text one another all of the time; as Felicia put it, texting is her "main form of communication."

The conflicts described above only scratch the surface on the contradictions participants had with their mobile phone use. Places deemed inappropriate for use of a mobile phone mentioned by each of my interviewees were places that each of those same interviewees claimed they used their phone anyway. The mobile phone is a complicated and sophisticated technology with its many purposes and functionalities, and it appears to stir up complex feelings in those that use them. The study indicates that the complexity of the mobile phone as a multi-purpose device, complicates the users' lifestyle who either choose, or become accustomed, to usage of all its features, often indiscriminately and perhaps unconsciously of both its benefits and costs.

## **6 In Conclusion**

Our daily routines, the behaviors that we exhibit, the routes that we walk or drive, become "natural" and we begin to take things for granted. We don't usually reflect critically about the mundane acts of daily life. Life on autopilot saves us from expending energy on our habits and we can focus on more important matters. At the same time, some pieces of our life can be overlooked. The mobile phone is a relatively new technology, especially the smartphone. Adopting these devices and carrying them on us near constantly has shifted that routine but as with all things we have adapted to them over time. Mobile phones are common, their usage prevalent, and almost invisible to us as we tend to normalize their availability.

When it becomes normal to own a mobile phone, people may stop questioning how they use these devices until there comes a time when they directly affect us (i.e. being interrupted at dinner by a phone or getting into a car accident due to phone use). Going about their daily life,

mobile phone users adapts to the world of this complex device, and once it becomes integrated into their life may be difficult to realize how much it has changed. During interviews, participants realized how big of an impact their device has had on their life. As Mary stated, “You’re making me have an identity crisis right now! You’re making me realize how much I need my phone and use my phone.” Kyle, at the end of our interview, stated: “Oh wow, I didn’t realize how dependent I was on my phone use until after this interview.” Interviewee Mark said, “Damn, you made me really think about this. I came here thinking that I don’t use this thing. I left with the utter realization that I use this thing every day of my life for hours. At least 5-6 hours a day!” Before studying the mobile phone and its influence on the people that use them, I had no idea how deeply complex and ingrained mobile phone use can be. If we broaden this phenomenon of unconscious phone use to each user in a wide area, we realize that social and cultural beliefs, practices, and structures change along with the users themselves.

So how has the mobile phone influenced college student’s daily life? Through my research, and the research of other social scientists, mobile phones are found to influence communication, work, information, our sense of space and place, our perception of ourselves and others, our relationships with others and even our relationship with ourselves. Students with a mobile phone are changed, they are “human +”, with the added features and functionalities of the phone. They can be constantly connected to others through the internet and communicative methods of the mobile phone. Asynchronous communication especially has shifted the established social spheres of the past. Whereas the demarcation of work and play spaces had been well defined, one’s office can now be a place to bond with family or one can work on their vacation, thousands of miles away from their desk, due to this constant connection. The mobile phone was found to be a conflicting technology, offering contradictory features and produced

contradictory feelings for users. Participants found that their mobile phone was a source of anxiety and relief, of safety and risk, of connection and disconnection. Mobile phones today are extremely complex and this complexity has caused people, users or not, to question the degree to which these devices are good for humanity.

I believe that the mobile phone can be a greatly beneficial technology. It allows us to connect in ways that we never have before, it allows us to have a plethora of information at our fingertips at all times. It does so many things that can help a person to become more capable than we have ever been. At the same time, mobile phone use can be detrimental to the health and safety of others. Driving a car or walking while staring at a mobile phone screen can end one's life in an instant... or just make us accidentally walk into a pole. The mobile phone can cause users to be overwhelmed by expectations to stay in contact with others and users can be overwhelmed just by the complexity of the device. It causes anxiety when we have it and possibly even more anxiety when it is taken away. It is difficult to say whether the mobile phone is inherently good or bad because our use of our phone dictates whether this technology is used in a way that is beneficial or detrimental to ourselves.

The mobile phone helps to make us who we are today. Users are "human +" now. It is up to each individual to define what that "+" means for them. Will a mobile phone user choose to answer a text while driving? Will a mobile phone user choose to memorize the trivial information that can be stored on a phone, just in case they lose it? Will a mobile phone user choose to text a friend when they could get together to talk face to face? The choices that individuals make as they use their mobile phone change who they are and how they interact with their socio-cultural world. The mobile phone gives us the power to choose how we live our life in little, and sometimes big, ways. With the power a mobile phone can grant an individual, a



responsibility to use that power in the greater interest of themselves and others is also placed upon the user.

In order for mobile phone users to achieve the maximum benefit of their device it is important to give them the information about mobile phone use so that individuals can make informed decisions about how to use their phone. Disseminating this thesis in a manner that would allow laypersons to read and understand it is a goal of mine. Allowing any person to see this body of data for themselves helps enable them to be informed about their device and their use of it. Holding a mirror up to people and their relationship with their mobile phone may allow individuals to reconsider what their mobile phone means to them and think critically about its effects. A small example of this effect is seen in the quotes from interviewees above. My participant's realization of their use of their mobile phone after talking about it, and my own personal realizations after seeing the data for myself, demonstrate what could be an effect that happens to anyone reading this research.

In addition to informing the general public of the effect of mobile phones I also wish to inform hardware and software developers of mobile phones and similar devices. Mobile phones are constantly being updated and expanded upon, with a newer model coming out at least once a year for most developing companies. Providing data such as mine to these developers can help to steer mobile phones future iterations in a direction that can be more beneficial than detrimental for those that use them. Performing on the ground research with actual users allows developers to understand the influence their devices have on all people. Also, according to SCOT, users of technology determine the direction that such technologies will take in their development as the most liked features are expanded upon while anything they dislike they may remove it from future models (Bijker, Hughes, & Pinch 1989). Still, I think that continued development of

mobile phones and similar devices can change the balance between benefit and detriment in either direction, causing more harm or help than before. Continuous iterative work on digital technology allows us to create, analyze the effects of these creations, and work towards ameliorating negative effects. I believe this cycle can produce wondrous creations if we continuously study their effects on individuals and their culture.

The relationship mobile phone users have with their device and the effects these devices have on entire social systems begs the question: to what extent do these devices influence people and their culture? Have we become a society of people with our heads down, our focus engulfed by these machines? Not necessarily, but it is important to analyze the mobile phones effect on human behavior so that this scenario does not become our future. In the end it is up to us. Each individual must choose the degree to which he or she will permit technology to aid or limit the quality of one's life. With the help of this research I hope that people can become more aware of the mobile phone in their life, look at it with a bit of skepticism, and determine how their mobile phone will affect them. After all, how does your mobile phone affect you?

## **6.1 Autoethnography**

Why am I, personally, doing this research project? In order to answer this, I will have to explain my background with a bit of information on who I am. First of all, I am a part of the digital generation (St. Clair 2011). I have grown up with digital technologies such as the mobile phone and the personal computer. My interest in the mobile phone began with my parents' adoption of their first mobiles around the time I was 14 years old. Since then, the mobile phone has fascinated me in both its technological capabilities, as well as the impact that it has had on the social and cultural systems I experienced throughout my life. With the emergence of the

“smart phone,” mobile phones with increased internet usage that interact with the internet even without physical input from a human operator, I felt the need to study this technology and came to GSU in order to do so.

With my passion for this technology, and the applied dimensions of mobile phone development in my future, I am possibly biased to the impact of the mobile phone. Despite this, it is important to try and check my biases because if there are detriments to the use of this technology, it is of the utmost importance to improve upon design aspects or make this knowledge available to influence future development for the benefit of those who use them. Being concerned with the design of mobile technologies may have influenced the research I have conducted.

## **6.2 Applications**

I intend to utilize the ethnographic data that I received through this study in order to further develop the mobile phone and similar digital technologies. Although I do not have the capabilities to influence the design of these technologies at the present time, I would like to use this body of data and the experience I have gained through research for design purposes in the future. Design anthropology, a relatively recent sub-discipline of anthropology, utilizes ethnographic methods to understand ideas and opinions on technologies in order to influence the design of those technologies (Wasson 2012). Using those principles in design anthropology, I will add the insights I have gained to create mobile phones that maximize beneficial outcomes while removing potential detrimental flaws.

### **6.3 Limitations**

Over the course of my ethnography, I have run into a few problems that may affect the outcome of my research overall. The fourteen participants I have been able to speak with in a direct one hour interview have provided valuable data, though I would have liked to speak with many more students to reinforce the themes that appear in the literature. I intended to hold several focus group discussions on the topic of mobile phone use in order to have information and themes emerge from a dialogue between several similar aged and gendered individuals (Krueger 2000). The difficulty in this method is similar in holding interviews; there needs to be a time and space where all participants would be able to meet. It has been challenging to find a time when eight or so participants can meet for the hour or longer that a focus group necessitates (Krueger 2000).

### **6.4 Future Research**

I would like to offer my ethnography, both its purpose and its tools, to others in the hopes that they may find consistencies among populations other than mine. The study of Georgia State University students aged 18-30 who own a mobile phone is quite a limited scope in comparison to all college campuses at all age groups. It would also be quite interesting to study the culture of individuals who do not own a mobile phone in order to compare their perspectives and experiences to my sample population. As part of my argument for conducting this study I had mentioned the exponential development of mobile phones and ICTs in general and I call for future studies to be conducted on future iterations of these devices. When technologies advance we must study them and their effect on us in order to understand the full impact of new

developments on socio-cultural systems. Only through continued research may we be able to take a mirror to ourselves and our culture to determine what it really means to be human.

## WORKS CITED

- Bernard, H. Russell & Pelto, Perti  
1987 *Technology and Social Change: 2<sup>nd</sup> Edition*. Prospect Heights: Waveland Press Inc.
- Bernard, H. Russell  
2002 *Research methods in anthropology: Qualitative and quantitative methods (3rd ed.)*. Walnut Creek, CA: AltaMira Press.
- Bickman, Leonard & Rog, Debra J.  
2009 *Handbook of Applied Social Research Methods (2<sup>nd</sup> ed.)*. Thousand Oaks, CA: Sage Publications.
- Bijker, Wiebe E. with Hughes, Thomas P. & Pinch, Trevor  
1989 *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. Cambridge: MIT Press
- Blok, Anders & Jensen, Torben E.  
2011 *Bruno Latour: Hybrid Thoughts in a Hybrid World*. Oxford: Routledge
- Chandler, Nathan  
N.d. How 4G Works. How Stuff Works <<http://electronics.howstuffworks.com/4g2.htm>>
- Chen, Brian X.  
2011 *Always On: How the iPhone Unlocked the Anything-Anytime-Anywhere Future--and Locked Us In*. Cambridge: Da Cao Press
- Contarello, Alberta with Fortunati, Leopoldina & Sarrica Mauro  
2007 *Social Thinking and the Mobile Phone: a Study of Social Change with the Diffusion of Mobile Phones, Using a Social Representations Framework*. *Continuum: Journal of Media & Cultural Studies* 21(2): 149-163
- Costello, Sam  
2013 *How Many Apps are in the iPhone App Store*. About.com: iPod/iPhone <<http://ipod.about.com/od/iphonesoftwareterms/qt/apps-in-app-store.htm>>
- Cowen, Tyler  
2009 *Three Tweets for the Web*. *Wilson Quarterly* 33: 54-58
- Cumiskey, Kathleen M.  
2005 "Surprisingly, Nobody Tried to Caution Her": Perceptions of Intentionality and the Role of Social Responsibility in the Public Use of Mobile Phones. *In Mobile Communications: Re-Negotiation of the Social Sphere*. Rich Ling and Per E. Pedersen, eds. Pp. 225-236. London: Springer-Verlag London Limited

- Echeverría, Alejandro, with Nussbaum, Miguel, Calderón Juan F., Bravo, Claudio, Infante, Cristian, & Vásquez, Andrea  
 2011 Face-to-face collaborative learning supported by mobile phones. *Interactive Learning Environments* 19(4): 351-363
- El-Gayar, Omar, with Moran, Mark & Hawkes, Mark  
 2011 Students' Acceptance of Tablet PCs and Implications for Educational Institutions. *Educational Technology & Society* 14(2): 58-70.
- Forbes  
 2015 Georgia State University <<http://www.forbes.com/colleges/georgia-state-university/>>
- Fortunati, Leopoldina  
 2005a The mobile phone as technological artefact. *In* *Thumb Culture: The Meaning of Mobile Phones for Society*. Peter Glotz, Stefan Bertschi, & Chris Locke eds. Pp.149-160. New Brunswick & London: Transaction Publishers
- 2005b Mobile Telephone and the Presentation of Self. *In* *Mobile Communications: Re-Negotiation of the Social Sphere*. Rich Ling and Per E. Pedersen, eds. Pp. 203-218. London: Springer-Verlag London Limited
- Foucault, Michel  
 1995[1977] *Discipline & Punish: The Birth of the Prison*. Alan Sheridan trans. New York: Vintage Books pp. 195-228
- Gershon, Ilana  
 2010 *The Breakup 2.0: Disconnecting over New Media*. Ithica and London: Cornell University Press
- Goggin, Gerard  
 2006 *Cell Phone Culture: Mobile Technology in Everyday Life*. London: Routledge
- Goldstein, Phil  
 2009 TelioSonera launches first commercial LTE network. *Fierce Wireless*.  
 <<http://www.fiercewireless.com/story/teliasonera-launches-first-commercial-lte-network/2009-12-14>>
- Gordon, Janey  
 2006 The Cell Phone: An Artifact of Popular Culture and a Tool of the Public Sphere. *In* *The Cell Phone Reader: Essays in Social Transformation*. Anandam Kavoori & Noah Arceneaux eds. Pp.45-60. New York: Peter Lang Publishing
- Green, Eileen & Singleton, Carrie  
 2009 Mobile Connections: An Exploration Of The Place Of Mobile Phones in Friendship Relations. *Sociological Review* 57(1): 125-144.

Green, Nicola & Haddon, Leslie

2009 History and Industry. *In Mobile Communications: An Introduction to New Media.* Pp. 17-32. Oxford: Oxford International Publishers Ltd.

Horst, Heather & Miller, Daniel

2005 From Kinship to Link-up: Cell Phones and Social Networking in Jamaica. *Current Anthropology* 46(5): 755-778.

Ilahiane, Hsian & Sherry, John

2009 Economic and Social Effects of Mobile Phone Use in Morocco. *Ethnology* 48(2):85-98

Inda, Jonathan X. and Rosaldo, Renato

2008 Tracking Global Flows. *In Overture: Thinking the Global. The Anthropology of Globalization Vol. 2.* Pp. 3-46. Hoboken: Wiley-Blackwell

Ito, Mizuko

2005 Mobile Phones, Japanese Youth, and the Re-placement of Social Contact. *In Mobile Communications: Re-Negotiation of the Social Sphere.* Rich Ling and Per E. Pedersen, eds. Pp. 131-148. London: Springer-Verlag London Limited

Jackson, Lorraine D.

2012 Is Mobile Technology in the Classroom a Helpful Tool or a Distraction?: A Report of University Students' Attitudes, Usage Practices, and Suggestions for Policies. *International Journal Of Technology, Knowledge & Society* 8(5): 129-140.

Jensen, Marianne, with Thrane, Kristin, & Nilsen, Siri Johanne

2005 The Integration of Mobile Alerts Into Everyday Life. *In Mobile Communications: Re-Negotiation of the Social Sphere.* Rich Ling and Per E. Pedersen, eds. Pp. 409-425. London: Springer-Verlag London Limited.

Jervis, John

1998 Exploring the Modern: Patterns of Western Culture and Civilization. Malden, Mass.: Blackwell Pp. 127-128

Johnson, Thomas J. & Kaye, Barbara K.

2004 Wag the blog: How reliance on traditional media and the Internet influence perceptions of credibility of weblogs among blog users. *Journalism & Mass Communication Quarterly* 1: 600-620

Julsrud, Tom E.

2005 Behavioral Changes at the Mobile Workplace: A Symbolic Interactionistic Approach. *In Mobile Communications: Re-Negotiation of the Social Sphere.* Rich Ling and Per E. Pedersen, eds. Pp. 93-111. London: Springer-Verlag London Limited



Katz, James E.

2005 Mobile Communication and the Transformation of Daily Life: The Next Phase of Research on Mobiles. *In* *Thumb Culture: The Meaning of Mobile Phones for Society*. Peter Glotz, Stefan Bertschi, & Chris Locke eds. Pp.171-182. New Brunswick & London: Transaction Publishers

Katz, James E. & Sugiyama, Satomi

2005 Mobile Phones as Fashion Statements: The Co-creation of Mobile Communication's Public Meaning. *In* *Mobile Communications: Re-Negotiation of the Social Sphere*. Rich Ling and Per E. Pedersen, eds. Pp. 63-81. London: Springer-Verlag London Limited

Kavoori, Anandam & Chadha, Kalyani

2006 The Cell Phone as a Cultural Technology: Lessons from the Indian Case. *In* *The Cell Phone Reader: Essays in Social Transformation*. Anandam Kavoori & Noah Arceneaux eds. Pp.227-239. New York: Peter Lang Publishing

Key and Peele

2014 Text Message Confusion. *In* *Georgina and Esther and Satan*. Original air date: October 8<sup>th</sup>. New York: Comedy Central.

Koff, Rosalind N. & Moreno, Megan A.

2013 Older Adolescents' Perceptions of Personal Internet Use. *College Student Journal* 47(2): 390-393.

Krueger, Richard. A., & Casey, Mary A.

2000 *Focus groups: A practical guide for applied research* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Krug, Steve

2006 *Don't Make Me Think: A Common Sense Approach to Web Usability*. Berkeley: New Riders

Lather, Patti

1986 Research as Praxis. *Harvard Educational Review* 56(3): 257-278

Leonardi, Paul, with Leonardi, Marianne E., & Hudson, Elizabeth

2006 Culture, Organization, and Contradiction in the Social Construction of Technology: Adoption and Use of the Cell Phone across Three Cultures. *In* *The Cell Phone Reader: Essays in Social Transformation*. Anandam Kavoori & Noah Arceneaux eds. Pp. 205-225. New York: Peter Lang Publishing

Levinson, Paul

2006 The Little Big Blender: How the Cellphone Integrates the Digital and Physical, Everywhere *In* *The Cell Phone Reader: Essays in Social Transformation*. Anandam Kavoori & Noah Arceneaux eds. Pp.9-17. New York: Peter Lang Publishing

Ling, Rich & Stald, Gitte

2010 Mobile Communities: Are We Talking About a Village, a Clan, or a Small Group?  
American Behavioral Scientist 5(8): 33-47

Love, Steve & Kewley, Joanne

2005 Does Personality Affect Peoples' Attitude Towards Mobile Phone Use in Public  
Places? *In Mobile Communications: Re-Negotiation of the Social Sphere*. Rich Ling and  
Per E. Pedersen, eds. Pp. 273-284. London: Springer-Verlag London Limited

Meyrowitz, Joshua

1994 Medium theory. *In Communication Theory Today*. David Crowley & David Mitchell  
eds. Polity Press, London Pp.50-77

Miller, Daniel

1987 Material Culture and Mass Consumption. Oxford: Basil Blackwell Ltd

Moseley, L.

2002 Digital culture: Rise of the thumb kids'. Newsweek, May 6: 37-38

Oenen, Gijs van

2011 Interpassive Agency: Engaging Actor-Network-Theory's View on the Agency of  
Objects. *Theory & Event* 14(2) Baltimore: The John Hopkins University Press

Paragas, Fernando

2005 Being Mobile with the Mobile: Cellular Telephony and Renegotiations of Public  
Transport as Public Sphere. *In Mobile Communications: Re-Negotiation of the Social  
Sphere*. Rich Ling and Per E. Pedersen, eds. Pp. 113-129. London: Springer-Verlag  
London Limited

Park, Wong Ki

2005 Mobile Phone Addiction. *In Mobile Communications: Re-Negotiation of the  
Social Sphere*. Rich Ling and Per E. Pedersen, eds. Pp.253-272. London: Springer-Verlag  
London Limited

Peele, Stanton

1985 The Meaning of Addiction. Lexington: Lexington Books

Pertierra, Raul

2005 Mobile Phones, Identity, and Discursive Intimacy. *Human Technology* 1(1): 23-44

Pinch, Trevor

1996 The Social Construction of Technology: A Review. *In Technological Change:  
Methods and Themes in the History of Technology*. Fox, Robert ed. Pp.17-35  
Amsterdam: Harwood Academic Publishers

Reagan, Joey & Lee, Moon J.

2007 Online Technology, Edutainment, and Infotainment. *In Communication Technology and Social Change: Theory and Implications*. Lin, Carolyn A. & Atkin, David J. eds. Pp.183-200. Mahwah: Lawrence Erlbaum Associates Inc.

Renaud, Karen with Blignaut, Renette & Venter, Isabella

2013 Designing Mobile Phone Interfaces for Age Diversity in South Africa: “One-World” versus Diverse “Islands”. *Human-Computer Interaction* 8119: 1-17

Sager, Ira

2012 Before Iphone and Android Came Simon, the First Smartphone. *Bloomberg Business* <<http://www.bloomberg.com/bw/articles/2012-06-29/before-iphone-and-android-came-simon-the-first-smartphone>>

Scelfo, Julie

2010 RU Here, Mom?. *New York Times*, June 10: D1

Sherwin, Cindy

2012 Man who sent first text message baffled by its popularity. *CTV News* <<http://www.ctvnews.ca/sci-tech/man-who-sent-first-text-message-baffled-by-its-popularity-1.1064598>>

Shiels, Maggie.

2003 A chat with the man behind mobiles. *BBC News online* <[http://news.bbc.co.uk/2/hi/uk\\_news/2963619.stm](http://news.bbc.co.uk/2/hi/uk_news/2963619.stm)>

de Souza e Silva, Adriana

2006 Interfaces of Hybrid Spaces. *In The Cell Phone Reader: Essays in Social Transformation*. Anandam Kavoori & Noah Arceneaux eds. Pp.19-44. New York: Peter Lang Publishing

Sreekumar, T. T.

2011 Mobile Phones and the Cultural Ecology of Fishing in Kerala, India. *The Information Society* 27: 172-180

St Clair, Michael

2011 *So Much, So Fast, So Little Time: Coming to Terms with Rapid Change and its Consequences*. Santa Barbara, Denver, & Oxford: Praeger

The College Board

2015 Georgia State University <<https://bigfuture.collegeboard.org/college-university-search/georgia-state-university>>

Trotter, Robert T. and Schensul, Jean J.

1998 Methods in Applied Anthropology. *In Handbook of Methods in Cultural Anthropology*. H. Russell Bernard ed. Pp. 691-735. Walnut Creek, CA: Altamira Press

Turkle, Sherry

2011 *Alone Together: Why We Expect More from Technology and Less from Each Other.*  
New York, NY: Basic Books

Valdes, Robert & Roos, Dave

N.d. How VoIP Works. How Stuff Works <<http://computer.howstuffworks.com/ip-telephony2.htm>>

Vincent, Jane & Haddon, L.

2004 Informing Suppliers about User Behaviors to better prepare them for their 3G/UMTS Customers'. UMTS Forum Report, no.34

Vincent, Jane & Harper, R.

2003 The social Shaping of UMTS: Educating the 36 Customer'. UMTS Forum Report, no.26

Vincent, Jane

2005 Emotional Attachment and Mobile Phones. *In* Thumb Culture: The Meaning of Mobile Phones for Society. The Meaning of Mobile Phones for Society. Peter Glotz, Stefan Bertschi, & Chris Locke eds. Pp.117-122. New Brunswick & London: Transaction Publishers

Wasson, Christina & Squires, Susan

2012 Localizing the Global in Technology Design. *In* Applying Anthropology in the Global Village. Christina Wasson, Mary O. Butler, Jacqueline Copeland-Carson eds. Pp 253-287. Walnut Creek: Left Coast Press

Wilson, Tracy V.

N.d. How WiFi Phones Work. How Stuff Works  
<<http://electronics.howstuffworks.com/wifi-phone1.htm>>

Youtube

2011 Pete Holmes – Google (Not Knowing).  
< <https://www.youtube.com/watch?v=PQ4o1N4ksyQ>>

2013 Louis C.K. Hates Cell Phones.

< <https://www.youtube.com/watch?v=5HbYScltflc>>