The social uses and gratifications of text messaging

Shayler Kimball White

University of Nevada, Las Vegas

Follow this and additional works at: https://digitalscholarship.unlv.edu/rtds

Repository Citation

This Thesis is brought to you for free and open access by Digital Scholarship@UNLV. It has been accepted for inclusion in UNLV Retrospective Theses & Dissertations by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact digitalscholarship@unlv.edu.
THE SOCIAL USES AND GRATIFICATIONS
OF TEXT MESSAGING

by

Shayler Kimball White

Bachelor of Science
Brigham Young University, Idaho
2004

A thesis submitted in partial fulfillment
of the requirements for the degree of

Master of Arts Degree In Journalism and Media Studies
Hank Greenspun School of Journalism and Media Studies
Greenspun College of Urban Affairs

Graduate College
University of Nevada, Las Vegas
May 2007
INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.
Thesis Approval
The Graduate College
University of Nevada, Las Vegas

April, 18______.2008

The Thesis prepared by
Shayler Kimball White

Entitled
The Social Uses and Gratifications of Text Messaging

is approved in partial fulfillment of the requirements for the degree of
Masters of Arts, Journalism and Media Studies

Examination Committee Chair

Dean of the Graduate College

Examination Committee Member

Graduate College Faculty Representative
ABSTRACT

The Social Uses and Gratifications Of Text Messaging

By

Shayler K. White

Dr. Julian Kilker, Examination Committee Chair
Associate Professor of Journalism and Media Studies
University of Nevada, Las Vegas

This study examines the social uses and gratifications of text messaging. The study consisted of a seventeen item survey that was given to 150 students on the campus of the University of Nevada, Las Vegas between the ages of 18–31.

I tested four hypotheses suggested that females were more likely than males to edit their messages before sending them (H1), use text because it is less engaging (H2), and use it to avoid an extended verbal conversation (H3) and that females use text messaging more than males (H4). A fifth hypothesis tested that text messaging is used more for personal use than professional use (H5). Five more hypotheses suggested that higher users of the technology were more likely to report using text messaging as a non-intrusive way to communicate (H6), have a backstage conversation with an onstage user (H7), maintain control over the conversation (H8), use it to escape those around them when in public (H9), and text message when they are not alone (H10).

H1–H4 were not supported suggesting there is no significant difference between males and females. H5 was supported suggesting that text message was used for more
personal reasons. H6 - H10 were also supported suggesting that there was a significant
difference between Higher and Low Users of the technology. Higher users were more
likely to use text messaging as a non-intrusive way to communicate, have a backstage
conversation with an onstage user, maintain control over the conversation, use it to
escape those around them when in public, and text message when they are not alone.
# TABLE OF CONTENTS

ABSTRACT....................................................................................................................... iii

ACKNOWLEDGEMENT .................................................................................................. v

CHAPTER I INTRODUCTION .................................................................................... 1

CHAPTER II LITERATURE REVIEW ....................................................................... 3
  SMS Technology .................................................................................................... 3
  Cellular History ................................................................................................... 6
  SMS History ....................................................................................................... 7
  Uses and Gratifications ........................................................................................ 8
  Text Messaging Uses and Gratifications and Related Technologies ............... 12
  Time and Space .................................................................................................. 17

CHAPTER III METHODOLOGY ................................................................................. 22
  Sampling ............................................................................................................... 22
  Survey ................................................................................................................... 22
  Plan for Analysis .................................................................................................. 23
  Gender Use Hypothesis....................................................................................... 23
  Professional/Personal Hypothesis ....................................................................... 25
  High User/Low User Hypotheses ....................................................................... 25

CHAPTER IV RESULTS ................................................................................................ 28
  Demographics ....................................................................................................... 28
  Gender Hypothesis ............................................................................................... 29
  Usage-based Uses ................................................................................................. 34
  Summary of Hypothesis......................................................................................... 39

CHAPTER V DISCUSSION ......................................................................................... 41
  Gender.................................................................................................................... 41
  Professional/Personal .......................................................................................... 43
  High/Low User .................................................................................................... 43
  Gender and Higher/Lower User ......................................................................... 48
  Time and Space .................................................................................................... 49
  Limitations ............................................................................................................ 50
  Further Research .................................................................................................. 51

APPENDIX ....................................................................................................................... 53

REFERENCES .............................................................................................................. 58
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Total Text Sent Per Year British vs. US</td>
<td>9</td>
</tr>
<tr>
<td>Table 2</td>
<td>Demographic Summary</td>
<td>31</td>
</tr>
<tr>
<td>Table 3</td>
<td>Hypothesis 1</td>
<td>32</td>
</tr>
<tr>
<td>Table 4</td>
<td>Hypothesis 2</td>
<td>33</td>
</tr>
<tr>
<td>Table 5</td>
<td>Hypothesis 3</td>
<td>34</td>
</tr>
<tr>
<td>Table 6</td>
<td>Hypothesis 4</td>
<td>35</td>
</tr>
<tr>
<td>Table 7</td>
<td>Hypothesis 5</td>
<td>36</td>
</tr>
<tr>
<td>Table 8</td>
<td>Hypothesis 6</td>
<td>37</td>
</tr>
<tr>
<td>Table 9</td>
<td>Hypothesis 7</td>
<td>38</td>
</tr>
<tr>
<td>Table 10</td>
<td>Hypothesis 8</td>
<td>39</td>
</tr>
<tr>
<td>Table 11</td>
<td>Hypothesis 9</td>
<td>40</td>
</tr>
<tr>
<td>Table 12</td>
<td>Hypothesis 10</td>
<td>41</td>
</tr>
<tr>
<td>Table 13</td>
<td>Summary of Hypothesis, Supported and Not Supported</td>
<td>42</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

I would like to thank all those who helped me complete this thesis and at the University of Nevada, Las Vegas. I would like to acknowledge my Committee Chair, Dr. Julian Kilker for his time spent helping review my research, running the tests, and guiding me in this endeavor. I appreciate my Examination Committee Members: Dr. Anthoni J. Ferri, Dr. Daniel A. Stout, and Dr. Donovan S. Conley. I am grateful to Dr. Thomas Burkholder for guiding me during my first two years of Graduate School. I would also like to acknowledge the Hank Greenspun School of Communication, the Graduate College, and the Hank Greenspun School of Journalism and Media Studies. I am also indebted to my uncle Ira Kimball, for suggesting Graduate School at the University of Nevada, Las Vegas and keeping me informed along the way. Last of all, I would like to thank my parents for their support, and my siblings for their love and kindness through this endeavor.
CHAPTER 1

INTRODUCTION

Text messaging, also called short message service (SMS), is a recent emerging technology that has become extremely popular, especially among youth. In 2007, one can walk across a college campus and see people talking on their cell phones and even text messaging between their classes. It is quite common to see students text messaging during lecture instead of listening to their professor. Television commercials tell people to text a certain word to a five digit number so they can start texting “local singles live.” Characters can be seen text messaging in new popular TV shows such as the WB’s One Tree Hill. “American Idol” even uses text messaging to allow viewers to vote for their favorite candidate without having to be in the studio. People will have entire conversations, sometimes about important topics, through text messaging, instead of calling other people on the phone to talk, or seeing them face to face. I have sent over 100 texts messages in a few hour period with friends holding a personal conversation.

Verizon Wireless offered a text messaging packages for as many as 2500 messages a month, sent and received. I had this package, and yet I personally exceeded that in one month by sending 4000 messages. The total has now been raised to 5000 messages.

Text messaging popularity is clearly on the rise. It is similar to such technologies as Instant Messaging, E-mailing, and Cell Phones. These technologies allow for close contact with friends without interacting face to face. Cell Phone use allows people to
communicate virtually in any space they are found in and at any time. Such mediated interpersonal communication allows people to socialize without having to leave the comfort of their own home or go out of their way to see their peers. The worries and anxieties of social acceptance doesn't have the impact it use to. It is turning into a mainstream way of socializing and keeping in constant contact with friends.

But some researchers argue that text messaging has mixed implications in society. It has caused the "deinstitutionalization of personal bonds" which "creates a web of short, content-poor interactions through which bonds can be built and strengthened in an ongoing process." This causes the "erosion of face-to-face community, a content and centered sense of self, moral bearings, depth of relationship, and the uprooting of meaning from material context: such are the dangers of absent presence" (Rosen, 2004, p. 43).

This study examines how and why people use text messaging. It looks into whether these behaviors are more influenced by gender and exposure to the technology. With such mixed reactions in society towards text messaging, and with the technology going mainstream, it merits further research. It is important to understand why it is used, how it is used, and what variables effect the uses. To start my research I will discuss the previous studies done on the topic and the tool which I will be using to measure and find my results.
CHAPTER 2

REVIEW OF THE PREVIOUS LITERATURE

This review of the literature focuses on three different subjects. First, it will focus on SMS, its technology, what it is, and its history with the cell phone. Second, I will discuss the Uses and Gratifications theory. I will then combine the two and discuss the theories specific applications to SMS and similar technologies. Third, I will discuss how the technology is creating gaps in communication through the delusion of time and space, and what issues this has created.

Short Message Service Technology.

Short message services (SMS) had mostly been used for convenient communication but the technology has turned into something far more than pointless teenage banter (Clements, 2003).

SMS messages are sent from one cell phone to another, almost like a two way radio (Bellis, 2006). A cell phone is "a type of wireless communication that is most familiar to mobile phone users. It's called 'cellular' because the system uses many base stations to divide a service area into multiple 'cells.' Cellular calls are transferred from base station to base station as a user travels from cell to cell" (Bellis, 2006, n.p.). Each cell phone uses a different type of signal. The original signal was analog. It is still used today but only by some of the original companies. Most have switched over to digital.
Analog offers the basic services (Differences in cell phone technologies, 2005). The second signal is *Global System for Mobile Communication* (GSM). It was the first digital technology to be used and was initiated in Europe (Differences in cell phone technologies, 2005). GSM also uses a technology called *Time Division Multiple Access* (TDMA). This technology compresses the speakers voices, slices it up into tiny segments of time, and sends to the other person's phone involved in the conversation. Due to a slight difference in signals between GSM American and European technologies, some phones aren't compatible with each other (Differences in cell phone technologies, 2005). The last technology to be discussed is called *Code Division Multiple Access* (CDMA) which was used by the military for many years. A person's voice is compressed just as with the TDMA signal then scattered across the spectrum of waves. A signal is exchanged between phones that allows the other carrier's phone to know exactly where to find the user's voice. The carrier's phone then gathers the information and puts the voice pattern back together (Differences in cell phone technologies, 2005).

In order to understand why text messaging is used, I feel it's important to understand the technology. People rely upon it as a means of communication but few know how it works. Technology isn't an issue that is touched upon in this study. The following is a brief overview of the technology behind text messaging.

*SMS is a globally accepted wireless service that enables the transmission of alphanumeric messages between mobile subscribers and external systems such as electronic mail, paging, and voice mail systems* (Short message facts, 2004, n.p.). A cell phone does not actually send a text message from one phone straight to another. It is actually an intricate and complicated process with many stops along the way for the
message. Before the process can be explained a few terms need to be defined. *Short Message Entity*, or SME, is the device which can actually send and receive short messages (Short message facts, 2004). The *Short Message Service Center*, or SMSC, is in charge of receiving, storing, and forwarding of all text messages to SMEs and wireless towers (Short message facts, 2004). The *Mobile Switch Center*, or MSC, controls the actual interfacing and connecting of calls and text messages between two SMEs (Short message facts, 2004). The Gateway Mobile Switch Center (GMSC) is the portal through which an MSC will retrieve information from the HLR about the receiver of the message (Short message facts, 2004). The *Visitor Location Register* (VLR) contains temporary information about all subscribers who are inside the designated cell or area (Short message facts, 2004). The *Home Location Register* (HLR) is a permanent storage database that handles the services and subscriptions of all cellular clients. (Short message facts, 2004).

The process is as follows. The text message is created in an SME and sent from the mobile device to the nearest cellular tower. The tower then sends the message to the MSC which then sends the message to the SMSC. In the SMSC the message is then stored until the other carriers information can be retrieved through the GMSC. The GMSC can then send the message onto other networks such as the internet. After the HLR has given the users information to the SMSC the short message is then forwarded back to the MSC. There the MSC inquires of the VLR of the location of the carrier and then forwards the message to the next cellular tower and then on to its final destination, the SME of the intended recipient (Short message facts, 2004). The process looks like the following:
Figure 1. SMS Cellular Network (Clements, 2003).

SMS has proven to have many benefits and down falls. Some of the benefits are an increase in successful communication across wireless networks due to notification capabilities; another way of alphanumeric paging. It is a non-intrusive way to pass along small amounts of information. It has also allowed corporate users to access data through wireless channels, adding services to SMEs such as email, voicemail, fax mail, reminder services, stock, currency quotes, and airline schedules, and other administrative tools such as advice on change, and wireless downloading (Short message facts, 2004, n.p.). Some of the downfalls of text messaging are being labeled as a service instead of a method of delivery, and unreliability in message delivery (Clements, 2003).

Cellular History

SMS capabilities emerged in the early 1990s and became popular in early 2001. A lot of this was due to the September 11th terrorist attacks. With so much cellular traffic clogging the airways, the only way to communicate for some was through a text message (Garfinkel, 2002). Despite the recent spike in popularity, the technology has been around for almost 50 years. The slow arrival is due in part to the FCC. In 1947, the FCC
allotted a very small number of radio-spectrum frequencies to AT&T for the use of mobile phones, each of which only allowed twenty-three phone conversations at a time. Something so limited wouldn't be able to supply the demand for the technology. In 1968 the FCC changed their position feeling that with the advancements in technology an increase in frequencies would occur and it would help free up the airwaves for more conversations. AT&T and Bell Labs, with the approval of the FCC, erected a wireless system of broadcast towers that each covered a small area, or 'cell,' that would together cover a large working area. As the phones would move from area to area then calls would trade towers (Bellis, 2006). The original technology was used in police cars to communicate and coordinate police activities. It then filtered into mobile units. Early cellular systems were invented and tested such as Chicago in 1977, Tokyo in 1979 (the first commercial cellular system), and the Washington/Baltimore area in 1981. In 1982 the FCC finally gave consent to open commercial wireless service for the entire USA, taking a total of 37 years for the technology to become available to the public (Bellis, 2006).

SMS History

The first text message was sent in 1992 by British Engineer Neil Papworth to a fellow employee at Vodafone, a UK cellular service provider. The message was a simple Merry Christmas greeting due to the overloaded network during the holidays and poor signal availability (Sun, 2004). With the establishment of a Global System for Mobile Communication (GSM), SMS was made possible, sending sequences of text-based codes across the networks. The messages were "characterized by out-of-band
packet delivery and low bandwidth message transfer. It provided a point-to-point (and
broadcast-to-point) mechanism for transmitting short messages (up to 160 text characters)
from wireless handsets (Clements, 2003, n.p.). In 1995 text messaging was made
available to the public in the UK. In April of 1998 it was reported that over 5.4 million
text messages had been sent. The first television program to include the use of SMS in
the plot was a show called Eastenders in 2000. In December of 2002 one billion text
messages were being exchanged globally. In August of 2005 the average number of text
messages sent in Britain were 87 million that month ("A Brief History of UK Text," 2005).
The technology was available sooner in Europe than it was in the United States. Here is a
comparison of the US and the UK, in their total SMS use from year to year (See Table 1).

In the UK the average number of text messages sent an hour totals 3 million with
the peak times being between 10:30-11:00 pm ("A Brief History of UK Text," 2005).

Uses and Gratifications

The Uses and Gratifications model is a mass media theory used to study the
specific uses of a technology the gratification expected, and the actual gratification
received. The theory was developed in the 1940s based on Laswell's research as to why
people tune in to certain media (Rayburn, 1996). It was then later revived in the 1970s
and 1980s (Chandler, 2004). Instead of the "effects model" that regarded users as
relatively passive (Massey, 1995), Uses and Gratifications theory purposes that
individuals are active users of the media (Kaye & Johnson, 2002). These active
audiences make their own choices of media and have specific goals for each of the media
that they choose to use. The theory focuses on what people do "with the mass media, as opposed to what the mass media do to people" (Stafford & Stafford, 1996, 29). Users are thought to have specific personal goals, or gratifications sought, that are satisfied through the use of certain media (Tewksbury & Althaus, 2000).

Uses and Gratifications theory is viewed as a "psychological communication perspective" (Ko, Cho, & Roberts, 2005, p. 58) about social needs (Chandler, 1994) of the users. Uses and gratifications of the various media studied include: relaxation, companionship, habit, to pass the time, social interaction, arousal/escapes (Furno-Lamude & Anderson, 1992), problem solving, persuading others, relationship maintenance, status seeking, personal insight (LaRose & Eastin, 2004), functional usage
and information, entertainment and play, demonstration of status and life (Trepte, Ranne, & Becker, 2003), personal identity (Chandler 1994), monitor current events and issues, make decisions or accomplish tasks, course work completion (Tewksbury & Althaus, 2000), and specific program content (Stafford & Stafford, 1996). Such growing lists of gratifications has shown a “convincing degree of patterned regularity and predictability” (Massey, 1995, n.p.).

Uses and Gratifications theory has usually been applied to traditional mass media, but new and emerging technology has allowed researchers to apply it in other fields of research (Kaye & Johnson, 2002). Some of the traditional media include newspapers and television, but it has been applied to more recent media such as cable television, the VCR, pagers, e-mail, and the World Wide Web (Ko, Cho, & Roberts, 2005). Text messaging is similar to many of the recent media to which the model has been applied, specifically e-mail, and not listed, Instant Messaging. With similarities in the technologies there may be overlapping uses between each. The model allows for a start point to identify possible media that are similar in nature, but also, similar uses among different media. The model also allows for finding the specific gratifications sought, or the reasons why text messaging is used in certain ways.

Another issue that affects the media is control and selection of the media (Stafford & Stafford, 1996). This allows for environment manipulation and may influence perceptions (Tewksbury & Althaus, 2000). For example, the internet and World Wide Web give the user more control over their media consumption allowing exploration of many websites versus a limited selection of television.
Users choose media based on the content it offers. This is called content gratification, and helps limit uncertainty and increase knowledge (Stafford & Stafford, 1996). Another type of gratification is called process gratification. This involves the actual engagement of the act of communication and the use of the medium (Stafford & Stafford, 1996). Each time a user starts to use the medium they enter the situation with gratification sought and leave with gratification obtained (Dimmick, Chen, & Li, 2004). Users have certain goals they wish to accomplish with each use of the media, but whether they leave the actual interaction with their goals met can vary from use to use. Each of these chances that a user encounters to use the media to receive the sought gratification is called a gratification opportunity. Each opportunity is based on the media and its uniqueness. Such attributes could include 'perceived content, time, and space' (Dimmick, Chen, & Li, 2004, 23). The same can be applied to text messaging. The time it takes to text may be quick if one has practice using it. It may take longer for others, thus discouraging them from its use. The technology is also easily available. All one has to do is pull their wireless handset out of their pocket, cue the messaging option, and type away. No specific physical space is needed to use the feature as long as the wireless handset has a signal. The user may send a text that reaches its destination and receive one in return from the recipient. The communication was a success, and the user may repeat the process. With each success the user grows more adept to using it. Uses and Gratifications isn't based on one time uses, but rather on continued exposure. Once the media has been deemed worthy for use then it must maintain its exposure in continuing to gratify its user (Stafford and Stafford, 1996).
The Uses and Gratifications model has been criticized from several perspectives. Researchers may be "using the approach in idiosyncratic, self-serving ways" (Massey, 1989, n.p.) creating a resultant theory, or researchers finding support for their hypothesis because the theory may limit actual uses of a media. Though the theory does provide a sufficient "degree of patterned regularity and predictability" in the form of listed gratifications it does not appear to explain the "advance knowledge about the connection between audience and the media" (Massey, 1989, n.p.). It has also been criticized for falling short as a functional theory and has also been called "atheoretical" (Rayburn, 1996, 145). Swanson, in 1997, listed four major conceptual problems with the theory:

- A vague conceptual framework;
- A lack of precision in major concepts;
- A confused explanatory apparatus;
- And a failure to consider audiences' perceptions of media content.

(Rayburn, 1996, p. 145)

Despite such criticisms the theory is still useful because it provides a good model for finding reasons for gratification sought. Power is given back to an active media user instead of a powerful media regulating the users.

After the method has created a list of behaviors about a certain technology, it then allows the behaviors to be looked and construct for a user. It may portray why the medium is used, what they expect to receive from its use, and what they actually receive from its use. It allows for analyzing specific behaviors. It also allows a more broad collection, or list, of general and possible uses of the technology.

With very little having been written on the uses of text messaging, the theory can be applied appropriately. In relation to this study, the theory will allow me to create a
general list of common uses of the medium. I can also put new tested uses into the list as well. One of the benefits of the theory is comparing lists of similar uses between different technologies. Researchers can compare them side by side to find the similarities and differences.

Text Messaging Uses and Gratifications

Very little has been written on the Uses and Gratifications of text messaging. What has been written about text messaging will also be discussed along side similar technologies such as cell phones, E-mail, and Instant Messaging (IM).

Mobile Phones

In 1985 there were around 240,000 cell phone users. Ten years later the number had increased to 33 million, and just a short time later in 2003 there were more than 158 million people in the country who had a mobile phone (Rosen, 2004). More than one billion people in the world now own cell phones (Rosen, 2004). Sixty-two percent of all American adults have them. A ringing cell phone has turned into a common occurrence and has become a common accepted interruption in society (Meadows & Grant, 2003). The cell phone allows for more privacy and intimacy (O'Keefe & Sulanowski, 1995, 922). It also allows for quicker contact with the intended partner wherever one may be (O'Keefe & Sulanowski, 1995). To have the ability to connect to anyone, anywhere, at anytime, without any mediator or any delays is truly an amazing advancement for the human race (Rosen, 2004).

Advancement of mobile phone technology has allowed users many features on such a small, portable device. It has become more than just a two way communication
device. It has evolved into "multi-purpose communication medium" (Leung & Wu, 2000, 308). The telephone has now turned into a calculator, a calendar, an mp3 music player, and a device that includes phone mail, voice mail, email, IM, game capabilities, and internet access (Davie, Panting, & Charlton, 2003).

People use mobile phones to make calls anytime and anywhere, for individual mobility, for social efficiency, to feel safe (have as a direct link with someone when needed), to save some money, to get instant information for social interaction, to protect their privacy (Davie, Panting, & Charlton, 2003), convenience, time saving, overcoming distance, overcoming loneliness and isolation, saving face (saying things that one would rather not say face to face), little emotional interplay, and avoiding small talk (O'Keefe & Sulanowski, 1995). It has also become a communication device in case of emergencies. A professor at Rutgers University had students turn off their cell phones for 48 hours. One student said, "It felt like I was going to get raped if I didn't have my cell phone in hand. I carry it in case I need to call someone for help." (Rosen, 2004). Another social benefit is using one's phone as a fashion accessory. Users can personalize and decorate their phone on the outside, with pictures and programs (Davie, Panting, & Charlton, 2003). Those who are rich will use them as a status of power to show off wealth and prestige," (Rosen, 2004, p. 27).

It has also become a tool for doing business, a tool for consumption, and as described by Meadows and Grant (2003) "one of the most visible indications of the pervasiveness of technology in human culture" (p. 307). During down time such as waiting in airports, driving, riding on trains, and the bus people can turn to their phones...
(Meadows & Grant, 2003). But with such common use of cell phones, social issues of etiquette and courtesy have arisen (Meadows & Grant, 2003).

Cell phones also fulfill a social need for the user. For specific interpersonal communication use, a total of six dimensions were listed: pleasure, affection, inclusion, escape, relaxation, and control (O'Keefe & Sulanowski, 1995). Most calls made by users were more for social purposes than task oriented purposes. Such calls allowed users to feel "less lonely, more secure, and more easily in contact" (O'Keefe & Sulanowski, 1995, p. 923) with others, especially parents with their kids (Rosen, 2004). A few dislikes that come with the territory of phones was monetary expenses, nuisance calls, inconvenient calls, impersonal nature, busy signal, and being cut off (O'Keefe & Sulanowski, 1995).

In a study conducted in New York in 1975 with 600 participants (O'Keefe & Sulanowski, 1995), 300 participants averaged four to six calls a day with most of the total time not exceeding a half an hour. Leung and Wei (2000) reported that the mean of most calls made and received in a single day numbered 9.33 and 9.57 times and the mean length of each call was 3.35 minutes. In a second study (O'Keefe & Sulanowski, 1995), the total time spent each day on the phone was 35 minutes with the greatest demographic users falling under women and single people; young adults being the greatest demographic for making and receiving calls. Being more educated also had a positive correlation with telephone use for social purposes. Also, the more a user sought entertainment, time management and social interaction, the more time was spent using the medium. Most calls were found to be made to friends and relatives who lived within an hour's drive of the user (O'Keefe & Sulanowski, 1995). It has also become a necessity for everyday users. A study done by the Hospital of Seoul National University
discovered that 3 out of every 10 Korean students at the high school level were addicted to their cell phones. They stated they felt anxiety and stress of consistent obsessive text messaging (Rosen, 2004).

Text Messaging

Very little research has been done on the uses and gratifications of text messaging. However, one use for text messaging is the capability of sending messages to friends across the cellular network to show affection and the receiver can then return the message. The message can also be saved in a cellular device to be retrieved, read later, and relive and remember the feeling experienced when the message was first received (Davie, Panting, & Charlton, 2003). Text messaging can also send the same message to more than just one person. Mass texts can be sent to multiple users at the same time which is useful for informing others of important dates, events, or information. With such limited research on text messaging it is relevant to research the uses and gratifications of other technologies. Instant messaging and e-mail are similar text messaging, send alphanumeric messages across a digital channel between two people.

Instant Messaging (IM)

Computer mediated communication (CMC) has been the subject of much research over the years. Online communication are called hyperpersonal communication, and can be more desirable for some people than face to face communication (McQuillen, 2003).

It offers such benefits as idealized perception, selective self perception: the sender, reduced cues, and asynchronous benefits. Idealized perception infers the person is judged and evaluated on limited, scarce, and selected information. A huge drawback to this is the perception is not accurate and promotes erroneousness displays of a person's
online identity. Selective self perception of/by the sender can select and display the information they feel would be most beneficial about themselves. This isn't completely honest because only positive things about the sender are being shown and it shows no 'fisk' (McQuillen, 2003, n.p.) in letting others see their bad qualities. In other words, real people have good and bad qualities whereas constructed online personalities have very few flaws. Reduced cues occur due to the absence of an actual physical body being present so the person must rely on emotions expressed through verbal communication, pictures, written text, and emotions portrayed through alphanumeric symbols (emotes). By reducing such nonverbal cues and mannerisms, one does not show individual characteristics that make the person who they truly are. Asynchronous benefits allow the user to plan and edit comments with more accuracy, ease, and caution. Such interactions are not done in real time and allow for a person to take a "time-out that is not typical in (face to face) interaction" (McQuillen, 2003, n.p.).

McQuillin (2003) compares all computer mediated communication to interactions at a masquerade party. In his view, online relationships are not initiated with the real person but with an ideal, subjective, flawless cyber personality.

**E-mail**

Email is the exchange of written letters across a digital network of computers. Email is far less active medium than face to face interaction or the telephone. Email is used for solving simple tasks in the office and is usually introduced by other people using it. Such a medium also allows you to send a single message to multiple users thus resulting in effective group communication and management (Ishii, 2005).
Time and Space

With cell phone technology, people no longer have to be in the same physical space as the person they desire to talk with. Society doesn't have to take time to go see someone.

Before media technologies, we lived in an "Oral Society." We had "ears" and lived in a "closed society" in which we lacked individuality and maintained "high interdependence" on one another (Meyrowitz, 1985, 17). According to McLuhan as cited by Meyrowitz (1985) oral cultures have "a mythic in-depth experience where all the senses live in harmony" (17). Print media, and any other media for that matter, break the mold of the oral people and give them "an eye for an ear," making sight the primary sense and push "sound, touch, and direct response" into the shadows (Meyrowitz, 1985, 17). Even with such a break from a highly interdependent society we still maintain a sense of self-definition based on other people. We think of ourselves as being "tall or short, smart or dumb, careful or bold," in comparison with others, in a sense we see ourselves "through relationships with other people" (Meyrowitz, 1985, 31).

Many of the new innovations of the 20th century have aided in the modification of time and space including: television, radio, the internet, the telephone, and now cell phones. Simply put, "Electronic media have changed the significance of space, time, and physical barriers as communication variables" (Meyrowitz, 1985, 13). Communication and travel were directly linked to one another, but this is not the case anymore (Meyrowitz, 1985). "Electronic media now brings information and experience to everyplace from everyplace" (Meyrowitz, 1985, 118). With these new media, users can
go where they could not before and receivers of the message are "present" despite such great distances (Meyrowitz, 1985, 118).

With such freedom through such communication it is harder for people to truly be alone. "The definition of situation and behavior is no longer determined by physical location. To be physically alone with someone is no longer necessarily to be socially alone with them when there are other people there on the phone. Intimate encounters are changed" (Meyrowitz, 1985, 117). With such technologies available intimacy in a relationship doesn't have to be with the person physically there. It makes a hard distinction of who is actually "here" and who are "not here." Users can hold an intimate relationship from great distances including family, friends, associates, and loved ones (Meyrowitz, 1985).

Technology has modified key characteristics of communication. One can communicate more in person because one's senses are engaged in interpreting all of the channels the sender has, where as mediated communication is limited to relatively narrow channels. Through mediated communication the user loses sense of onstage role because all of the behavior is lost through the channel (Meyrowitz, 1985). In other words, onstage behavior is lost through a backstage channel that is only limited to numbers and words.

With backstage communication, identifying groups are formed and others are left out. Those who are participating in the actual communication are identifying themselves in the same group because they are sharing the same situation, while others are left out. Such behavior in including others and leaving others out isn't just measured by where we are. It becomes those we are linked to through our other forms of communication.
(Meyrowitz, 1985, 55). The separation of 'us' and 'them' forms the 'us' into a 'team.' This 'team' tries to protect their backstage communication that allows them to continue to operate together. When the 'team' is together in an onstage (face-to-face) situation, and they have knowledge of their other performances (backstage communications) that others aren't aware of, it creates an even tighter bond as a 'team' and continues to separate them further away from 'them' (Meyrowitz, 1985). The team continues to grow closer as they become more 'isolated together' in the same backstage performances and able to share mutual knowledge in onstage settings. The group is thus founded over the same 'Group Territory' that has been created through their own informational world, created by backstage performances only known to those who participated in them (Meyrowitz, 1985, 57). The groups are not based on gender, height, intelligence, race, religion, or socioeconomic demographics anymore. They are based on who has access to what information with which groups through what technology.

The reality of the backstage and the onstage can get skewed very quickly and sometimes are not all too quick to agree with each other. Cell phone use engages two people in a backstage performance. But what if one of those two people is currently in an onstage performance? The two situations would not agree with each other. Cell phones use in public has become a problem in society when one person calls another to engage them in a backstage performance, the interruption is often not taken kindly by those in the current onstage performance. But users have to decide, will I be accessible through my cell phone, my backstage, and socially remove myself? Or will I stay focused and be in contact with my onstage, but close those out who are not around me (Rosen, 2004)? As cell phones have become popular, their users have been 'stabbed, escorted off planes by...
federal marshals, pepper-sprayed in movie theaters, ejected from concert halls, and deliberately rammed with cars as a result of bad behavior on their cell phones' (Rosen, 2004, 35). As cited in USA Today (Rosen, 2004), "59% of people would rather visit the dentist than sit next to someone using a cell phone" (35). A sense of social space has started to vanish between that which is private and that which has become public. People are not 'overhearing' cell phone conversations about things of a personal matter; they are 'hearing' because people are constantly on their cell phones, wading onstage while lost backstage. The term 'lost in backstage' also plays a significant role in onstage interaction. People have stopped talking and interacting with those who are physically present around them. They seem to forget where they are and the people who are really there don't actually exist to them. Even worse, cell phone users expect those who are physically around them not to intrude on their phone conversations. Rosen (2004) states, "He or she sends a very clear message to others that they are powerless to insist on their own use of the space. It is a passive-aggressive but extremely effective tactic" (35). By using such a device around others it is almost as if they are implying "I don't need you." The "technology cold shoulder," as it is called by Rosen (2004, 38), has become the excuse to withdraw from the onstage performances and a sign of refusing to be in the social space at all.

There are places though that users will, for the most part, turn their cell phones off such as libraries, theaters, restaurants, and schools. A few inappropriate places to use a cell phone would be on a date, the movies, a wedding, a funeral, and a therapy session (Rosen, 2004). People also tend to move away from those who are using cell phones too, as if they are polluting the environment with some unseen, but overheard, filth. Unwritten social rules suggest that one should be courteous to those around you, but
people still find some means of justifying the call that they are making (Rosen, 2004). Etiquette experts have suggested that people find other ways to divert such calls or find alternatives to them. Ironically, on Whitmore’s Ten Tips for Cell Phone Savvy, number seven is to use text messaging instead (Rosen, 2004).

Does text messaging really make you savvy on your cell phone? It may only create more communication gaps between users. With such problems arising a sufficient measuring tool is needed to examine the issues. The hypotheses and instrument used for this study will be discussed further in the methods section.
CHAPTER 3

METHODOLOGY

This study examines the uses and gratifications of text messaging in today's society. In the methods section I will discuss the sampling as well as the instrument used to gather data. I will also discuss the hypotheses, and what variables affected their decision.

Sampling

The current study surveyed 150 undergraduate students at the University of Nevada, Las Vegas. This convenience consisted of males and females between the ages of 18 and 30. All students were enrolled in Oral Communication 101 classes. Other instructors volunteered to help distribute the surveys in their Oral Communication 101 classes as well as in person by the Secondary Investigator (myself).

Survey

A seventeen item survey was written for this study (See Appendix A.) It consisted of likert-scale questions and open-ended questions asking participants about their cell phone uses, places of use, text messaging uses, places of use, specific scenario use, demographic, and further opinion. Those who did not text message were to elaborate as to why not, and what would encourage them to use SMS.
The final survey results went through three revisions. I conducted a pilot study with a research class at the graduate level followed by a question and opinion discussion that helped reword, add, and eliminate questions. I ran into some problems with technological issues and age. Some of the participants said they used an alphanumeric standard keypad on the phone, while others used a full keyboard, such as one found on a P.D.A. Other participants said they didn't even use text messaging at all and only had a cellular phone for technology use issues, such as calling 911 and storing information. I decided to remove all technological uses and functions of the phone and SMS from the survey, and focus solely on social uses. In the pilot study it seemed that those older than 30, closer to their 40s didn't know how to use the technology nor see it a fit way of communication. I decided to limit the age range from 18–30. Through participant feedback, some of the tools were reworded to better simplify and clarify the questions.

Uses and Gratifications in the Survey

One of the methods I used in creating the survey was identifying categories of similar uses in other mediums. These categorized uses were provided by the Uses and Gratifications theory. Part of the purpose of the theory is to created categories of uses for specific median. I looked at similar uses and behaviors with cell phones and was able to categorize as follows: for social efficiency—(H5) PERSONAL, to protect their privacy—(H7) - PRIVATE, overcoming loneliness and isolation—(H10) ALONE, saving face (saying things that one would rather not say face to face)—(H2) FACE, little emotional interplay—(H2) FACE, and avoiding small talk—(H3) NOTCALL. The other behaviors I wanted to test I categorized on my own.

Plan for Analysis

24
The data collected will be mostly ordinal/internal data with a few open ended and short answer questions. Two key grouping variables were SMS usage (high vs. low) and gender (male vs. female). All of the data collected has been analyzed in SPSS.

Gendered Use Hypothesis

When I started this research project, I first asked my friends and associates what they thought of text messaging. To my surprise many of them said they thought females text messaged and males called. These were all strictly based on opinion and not on any scholarly research. However, in studies I researched, Fischer (1992) reported that women's use, in the past, of landline phones was significantly different than that of men. Women used landline telephones more often, talked longer, and used it more for social purposes. Also mentioned in the literature review, some studies on cell phones found that females had higher usage for call time and social purposes. Based on these differences in landline and mobile phones, I decided to use gender as a point of analysis.

H1: Females will report being more likely than males to use SMS to communicate phrases because it allows for editing and prescreening of a message before it is sent to another person.

H2: Females will report being more likely than males to use SMS to communicate sensitive topics of conversation that would be harder to do in a face to face interaction.
H3: Females will report being more likely than males to use SMS to communicate with someone they don't want to have an extended verbal conversation with.

The first three hypothesis cover specific behaviors. This is where the idea originally came from, that males called, and that females text messaged, especially members of the opposite sex. I found these specific behaviors being used by females more than males. I noticed they edited their message before they sent them (H1). It was reported to me by more of my female peers that important conversations were occurring through SMS. One conversation reported to me lasted as long as an hour, all through SMS, with a total of over 100 messages being sent between the two users (H2). I noticed my female friends avoiding phone conversations with their peers, and choosing to text message instead (H3). I want to know if females utilize SMS more than males in their communication.

H4: Females will report being more likely than males to use SMS for a means of communication.

The fourth hypothesis covers texting between genders in general. I also predict, overall, females will text message more than males.
Professional/Personal Hypothesis

H5: Users will report being more likely to send personal messages instead of professional messages

I have also seen text messaging used as a business tool at one of my previous places of employment. When the sales manager needed to have a meeting with all of the salesman on the floor they would all get the same text message on their business phones. It was a way to coordinate with all of the employees, by sending a mass text. I had also seen many people using text messaging for social reasons. The business use had been one of few instances that I knew of where SMS was used for that reason. Most of the uses I had personally seen up to this point in time had all been for social reasons. So I assume that SMS will be used more for personal reasons than professional reasons.

High User/Low User Hypotheses

I am a high user of text messaging. I have sent and received 4000 texts in one month. One participant in my study reported she had sent 5600 in one month. I have spent time talking to people about their uses of text messaging. Some would have entire conversations of a serious nature just through text message. Others felt it was better to just pick up the phone and call, they didn't text very much and/or weren't good at it. I decided to divide the users up into high and low user. The Low Users were those who sent less than 100 text messages per month (100 < per month). High Users were those who sent more than 1000 text messages per month (1000 > per month). The mid users,
were those who sent more than 100 but less than 1000 SMS per month (100 > to < 1000 per month), were not included in this analysis.

H6: High Users will report being more likely than Low Users to use SMS as a non-intrusive way to contact another person.

H7: High Users will report being more likely than Low Users to use SMS to have a private conversation with someone in the same room as them.

H8: High Users will report being more likely than Low Users to use SMS to maintain control over the conversation.

H9: High Users will report being more likely than Low Users to use SMS when they are in public but with strangers.

H10: High Users will report being more likely than Low Users to use SMS when people are around versus when being alone.

I noticed some specific behaviors involving SMS occurring with my peers in their everyday interactions. I assume that high users would be more likely to use SMS in the following ways than low users. People would call someone they knew was in class. They would follow it up by a text message to the person still hoping to reach them (H6). I noticed my friends would be texting in social settings, and later be told it was to each other at the same event. They would be having a conversation with someone in the same
room with them through text messaging, without saying a word to them, and maybe
without even looking at them or engaging them in any way face to face (H7). I noticed
my friends would use SMS to keep control of the conversation. It was easier not to text
back, keep it short, or even delay a response (H8). A few of my friends would also use
text messaging to escape from those around them, as an excuse to disconnect from the
situation they were physically, or “onstage,” in (H9). I had a few peers briefly mention
they sent more text messages when people were around instead of when they were alone
(H10). These were all behaviors I noticed in the initial process of my research.
CHAPTER 4

RESULTS

The results are presented in three areas: demographics, gender-based hypotheses, and usage-based hypotheses. With each hypothesis I will show what I originally expected to find, the mean of the males/females or high/low users, the t-value, and the significance of the hypothesis. After this I will state if the hypothesis was supported or not, and if it had an impact on the variable.

Demographics

One hundred and fifty surveys were distributed and one hundred and forty-six were filled out and entered into SPSS version 15.0. Most respondents were between the ages of 18-21 (80.3%), with the mode being age 19 (29.9%). The remaining 19.7% of respondents were between the ages of 22-30. Gender and education level are displayed in the following tables.
### Table 2 Demographic Summary

#### Gender

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>39.6%</td>
<td>60.4%</td>
<td>100%</td>
</tr>
<tr>
<td>Frequency</td>
<td>55</td>
<td>84</td>
<td>139</td>
</tr>
</tbody>
</table>

#### Education Level

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>36%</td>
<td>50</td>
</tr>
<tr>
<td>Sophomore</td>
<td>32.4%</td>
<td>45</td>
</tr>
<tr>
<td>Junior/Senior</td>
<td>28%</td>
<td>39</td>
</tr>
<tr>
<td>Graduate</td>
<td>2.9%</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>.7%</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>139</td>
</tr>
</tbody>
</table>
Gender Based Hypothesis

H1: Females will report being more likely than males to use SMS to communicate phrases because it allows for editing and prescreening of a message before it is sent to another person.

Table 3

t-test (1-tailed) for the Editing Messages: Comparison Between Males and Females

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>M</th>
<th>t-value</th>
<th>sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIT</td>
<td>3.09</td>
<td>2.91</td>
<td>1.019</td>
<td>0.16*</td>
</tr>
</tbody>
</table>

(*equal variance not assumed)

The significance of the hypothesis with a 1-tailed test was greater than .05; thus the hypothesis was not supported. Therefore, gender has so significant influence on the use of SMS.
H2: Females will report being more likely than males to use SMS to communicate sensitive topics of conversation that would be harder to do in a face to face interaction.

Table 4

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>t-value</th>
<th>sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACE</td>
<td>2.63</td>
<td>.209</td>
<td>0.12*</td>
</tr>
</tbody>
</table>

(*equal variance not assumed)

The significance of the hypothesis with a 1-tailed test was greater than .05; thus the hypothesis was not supported. Therefore, gender has so significant influence on the use of SMS.
H3: Females will report being more likely than males to use SMS to communicate with someone they don't want to have an extended verbal conversation with.

Table 5

t-test (1-tailed) for Limited Verbal Exchange vs. Using SMS: Comparison Between Males and Females

<table>
<thead>
<tr>
<th>Mean</th>
<th>F</th>
<th>M</th>
<th>t-value</th>
<th>sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOTCALL</td>
<td>3.48</td>
<td>3.30</td>
<td>.711</td>
<td>.131*</td>
</tr>
</tbody>
</table>

(*equal variance not assumed)

The significance of the hypothesis with a 1-tailed test was greater than .05; thus the hypothesis was not supported. Therefore, gender has so significant influence on the use of SMS.
H4: Females will report being more likely than males to use SMS for a means of communication.

Table 6

<table>
<thead>
<tr>
<th>Mean</th>
<th>M</th>
<th>t-value</th>
<th>sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEMALEUSE</td>
<td>764.82</td>
<td>722</td>
<td>.245</td>
</tr>
</tbody>
</table>

The significance of the hypothesis with a 1-tailed test was greater than .05; thus the hypothesis was not supported. Therefore, gender has so significant influence on the use of SMS.
H5: Users will report being more likely to send personal messages instead of professional messages

Table 7

t-test (1-tailed) Frequency of Personal vs. Professional Messages Sent

<table>
<thead>
<tr>
<th>Mean</th>
<th>t-value</th>
<th>sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSONAL</td>
<td>-87.80</td>
<td>-35.418</td>
</tr>
</tbody>
</table>

(*equal variance not assumed)

The significance of the hypothesis with a 1-tailed test was less than .05; and the hypothesis was supported. Therefore message type has an impact on SMS usage.

Personal message are sent more than professional messages
Usage-based Uses

H6: High Users will report being more likely than Low Users to use SMS as a non-intrusive way to contact another person.

Table 8

\textit{t-test (1-tailed) for Non-Intrusive Channel of Communication: Comparison Between High Users vs. Low Users.}

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th></th>
<th>t-value</th>
<th>sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HU</td>
<td>2.28</td>
<td>LU</td>
<td>3.49</td>
<td>-2.57</td>
</tr>
<tr>
<td>LESS</td>
<td></td>
<td></td>
<td></td>
<td>.006*</td>
</tr>
</tbody>
</table>

(*equal variance not assumed)

The significance of the hypothesis with a 1-tailed test was less than .05; and the hypothesis was supported. Therefore usage has a influence on SMS uses. Higher users are more likely to use SMS as a non-intrusive form of communication.
H7: High Users will report being more likely than Low Users to use SMS to have a private conversation with someone in the same room as them.

Table 9

t-test (1-tailed) for Private Conversation in Same Physical Setting: Comparison Between High Users vs. Low Users.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>t-value</th>
<th>sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIVATE</td>
<td>2.15</td>
<td>-4.42</td>
<td>.000*</td>
</tr>
</tbody>
</table>

(*equal variance not assumed)

The significance of the hypothesis with a 1-tailed test was less than .05; and the hypothesis was supported. Therefore usage has an influence on SMS uses. Higher users will use SMS to hold conversations with someone in the same place.
H8: High Users will report being more likely than Low Users to use SMS to maintain control over the conversation.

Table 10

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th></th>
<th>t-value</th>
<th>sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HU</td>
<td>1.76</td>
<td>LU</td>
<td>2.62</td>
<td>-3.30</td>
</tr>
<tr>
<td>t-value</td>
<td></td>
<td></td>
<td></td>
<td>.001*</td>
</tr>
</tbody>
</table>

(*equal variance not assumed)

The significance of the hypothesis with a 1-tailed test was less than .05; and the hypothesis was supported. Therefore usage has a influence on SMS uses. Higher users will use SMS to control the conversation.
H9: High Users will report being more likely than Low Users to use SMS when they are in public but with strangers.

Table 11

\begin{tabular}{|c|c|c|c|}
\hline
\textbf{ESCAPE} & HU & LU & t-value & sig. (1-tailed) \\
\hline
1.85 & 2.70 & -3.50 & .001* \\
\hline
\end{tabular}

(*equal variance not assumed)

The significance of the hypothesis with a 1-tailed test was less than .05; and the hypothesis was supported. Therefore usage has an influence on SMS uses. Higher users will use SMS as a means of escape.
H10: High Users will report being more likely than Low Users to use SMS when people are around versus when being alone.

Table 12

\begin{tabular}{|c|c|c|c|}
\hline
\textbf{Mean} & HU & LU & t-value & sig. (1-tailed) \\
\hline
ALONE & 3.86 & 3.59 & -1.723 & .045* \\
\hline
\end{tabular}

(*equal variance not assumed)

The significance of the hypothesis with a 1-tailed test was less than .05; and the hypothesis was supported. Therefore usage has an influence on SMS uses. Higher users will use SMS more when people are around.
<table>
<thead>
<tr>
<th>Sig (1-tailed)</th>
<th>Variable</th>
<th>Supported/Not Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1: EDIT</strong></td>
<td>.16</td>
<td>Male/Female</td>
</tr>
<tr>
<td><strong>H2: FACE</strong></td>
<td>.12</td>
<td>Male/Female</td>
</tr>
<tr>
<td><strong>H3: NOTCALL</strong></td>
<td>.131</td>
<td>Male/Female</td>
</tr>
<tr>
<td><strong>H4: FEMALEUSE</strong></td>
<td>.403</td>
<td>Male/Female</td>
</tr>
<tr>
<td><strong>H5: PERSONAL</strong></td>
<td>.000</td>
<td>Personal/Prof</td>
</tr>
<tr>
<td><strong>H6: LESS</strong></td>
<td>.006</td>
<td>High/Low User</td>
</tr>
<tr>
<td><strong>H7: PRIVATE</strong></td>
<td>.000</td>
<td>High/Low User</td>
</tr>
<tr>
<td><strong>H8: CONTROL</strong></td>
<td>.001</td>
<td>High/Low User</td>
</tr>
<tr>
<td><strong>H9: ESCAPE</strong></td>
<td>.001</td>
<td>High/Low User</td>
</tr>
<tr>
<td><strong>H10: ALONE</strong></td>
<td>.045</td>
<td>High/Low User</td>
</tr>
</tbody>
</table>

Based on the results from the hypothesis, gender has no significant impact on the uses of text messaging. Males and Females are both likely to use text messaging in
similar ways. There is a clear difference between the uses of text messaging based on usage. High users are more likely to use text messaging in the tested ways than Low users. Users are also more likely to send messages with personal context instead of professional.
CHAPTER 5

DISCUSSION

This study has been about the social uses and gratifications sought of text messaging. It has covered specific uses and reasons for sending text messages based on gender, social use, and high users versus low users. In the following section I will discuss the outcome of the study, how each hypothesis is related to text messaging, and some of the general problems encountered in the study. I will also discuss what could have been done better, what text messaging does to impact communication, and how cell phone companies should help to close the communication gap.

The first four hypotheses predicted differences of use based on gender through editing messages, using SMS to avoid face-to-face interaction, limiting communication through SMS, and that females in general use SMS more. The fifth hypothesis predicted the differences of users in general sending personal messages versus professional messages. The last five hypothesis predicted differences between high users and low users through non-intrusive contact through SMS, holding private conversations in same physical settings with another person, having control over the conversation, a means for escape while in public, and sending more messages when people are around instead of alone.
Gender

None of the hypotheses indicating gender as a difference for uses (H1–H4) were supported. This suggests that males are just as likely as females to edit their messages before sending them. It also suggests that males are just as likely as females to send a text message to a recipient to avoid face to face interaction with that person. Males also reported being just as likely as females to use text messaging to limit communication with a recipient. In general, females and males use text messaging about the same amount. There is no clear differences between these specific uses of text messages or the gratifications sought.

Few current studies could be found to support the hypotheses specifically regarding gender and text messaging. Tanaka (2002) has reported that a study done in the U.K showed that on average, women send more text messages then men; 6.3 vs. 4.8 a day. Another study in the New York Times cited gender differences with cell phones in the "Dating Game." They explained men flash their cell phones "to advertise to females their worth, status and desirability" (Angier, 2000, p. D5). The cell phone is shown as a sign of status for the males, and good social position.

Voice and text messaging are two different uses of cell phone technology. According to O'Keefe & Sulanowski (1995,) women were more likely to use the cell phone for social purposes. In a second study on cell phone usage (O'Keefe & Sulanowski, 1995), the total time spent each day on the phone was 35 minutes with women and single people having higher usage.
Email is another technology similar to SMS that has shown gender differences. Ishi (2005) reported that women were more likely to send email and get involved in tasks through computer-mediated communication (CMC) than men were (p.388).

These patterns were not supported in my research. I thought that gender would have played a clear distinction in the uses of text messaging. I predicted that females would be the dominant users of the medium. Clearly this was not so for my sample. Males are just as likely to use it as females for these specific behaviors. I found gender appears to make no difference in the uses of text messaging.

Professional/Personal

The hypothesis stating that users were more likely to use SMS for personal reasons vs. professional reasons was supported. SMS has become very easily accessible to the general populace. It is available on almost every phone and every service provider offers a text messaging plan. Only one person surveyed said that they actually sent more professional than personal messages. He reported 90% of his SMS were for professional purposes. O'Keefe & Sulanowski (1995) reported that more calls were made for social purposes than task-oriented purposes. One reason is that a text message is meant for simple messages. Though some reported in the survey having had serious and important conversations over text messaging, its hard to fit an important business message into 160 characters. There are also cellular devices and P.D.A.s that allow you to access the internet and email. P.D.A.s have many appealing features but reliability is brought into question. You can cut out of signal at anytime, and in some areas, coverage is scarce. So
even through cellular technology, other forms of communication may be more desirable
to use than a short and limited form of communication.

High/Low User

This is the part of the study that showed the most interesting and promising results. All five of the hypothesis about specific uses of SMS with regards to High Users versus Low Users were supported. According to my findings, higher users of the medium are more prone to certain types of behavior.

This could be looked as a very circular argument. Of course those who use it more will do different things with it in regards to behavior. The facts surrounding high/low user actually go deeper than that. It creates two conditions with the high users, one positive and the other negative. It begins communication isolation with certain people while it increases their ability to communicate with others. Those who use it more become more reliable on text messaging as a form of communication. They want to contact all people who have mobile phones through a text message, when not all people use the feature on their phones. This creates a communication gap. The high users limit their messages with those who use the technology less frequently or not at all. Just as mentioned in the literature review, they create a “team” (Meyrowitz, 1985), and become isolated. They can move forward as a “team,” everyone having access to the same information, but as they move forward, other low and nonusers get left behind.

Aside from the communication isolation they create a “communicational bond” with other high users inside this “team.” They are able to text those who use SMS more often with faster response time to messages. They now have a second or third, assumed
reliable, form of "backstage communication" with the person. So while the communication and technology gap widens with some, it closes with others as high users discover more about their new channel of interaction.

These mentioned positives or negatives of high users are accomplished through sharing the same communicational network. It is easier to text people who text, email people who email, and chat with people who have chat programs. As more people adopt SMS as a form of communication and join the high user category, it should be more readily available through service providers. Many of these concepts are discussed in the diffusion of innovation theory, which covers the actual adoption of a technology into society. As mentioned by Rosen (2004), sixty-two percent of Americans now own cell phones. The "Late Majority" adopters of a technology in society would be between 50% - 84% of the total population. Only the "Laggards" follow and they are the very last group to adopt a technology in society (Rogers, 1962, p.247). It is enough to mention here that it has already been adopted in, what we want to know is why it is used so much and for what.

Another reason people may use SMS is because they receive positive gratification from the actual use of the medium. Ishi (2005) discovered this with users of email; those who used it more often had higher satisfaction with it. Those who used it less frequently did have high satisfaction in the areas of personal feedback, horizontal communication, and media quality but low satisfaction in overall communication through email. Some of the reasons cited in my survey by participants for not using text messaging were not looked at in Ishi's study. They said they would be more likely to use text messaging if it was easier than calling, if it was offered cheaper by their provider, and if their cellular
device and mobile programs made it easier for them to put together a text message. Technology and pricing were not taken into account in this study.

Another reason is that the 'backstage' communication can be more socially safe than the 'onstage' communication. It may be easier to carry on a conversation through text messaging because the user has control over the conversation (H8). They can edit the content of the text before sending to say exactly what they want instead of being in a conversation and saying something they will regret.

SMS can be used to contact someone who is onstage, but do it through a 'backstage' channel (H7). For example, back in 2005, about ten people were at a restaurant eating dinner. Amanda and a friend were sitting down at the table from each other. She was sitting next to a boy. Her friend was curious if they were dating, if she liked him, or if they were just friends. Her friend could not talk to her at that very moment, nor pull her aside, so he got out his phone and they started to send out 'backstage' communication to each other. The only exchange that went on other than their text messages being sent back and forth was a glance here and there. He was able to talk to Amanda about her situation, with her present in the same 'onstage,' without saying a word.

Users can also contact others who are in different 'onstage' situations, without being too intrusive (H6). For example, if I know a friend is in class, in a meeting, or out to dinner, I can contact them through SMS without interrupting them with a ringing phone. They don't have to attend to the call immediately and the text can be responded to at a later time. There is no need for an immediate response. The problem with this is that some messages get delayed, lost, or unattended to immediately when the sender expects
the receiver to give an immediate response. This could create communication problems based on what the sender expects out of the message. For example, Allison got sent a text message at 11 p.m. asking her if she wanted to go grab some late night food. She didn't respond so her friend assumed she was either busy or possibly mad at him. When he saw her the next morning, around 10 a.m., she received the message he had sent to her the night before, while he was in her presence. It had taken the message eleven hours to reach her through the network. The friend sent it and he was there when she received it. Some users may find problems in the backstage channel are not strictly based on users of the technology, but the technology itself.

Another reason, not tested as a hypothesis, but mentioned by participants in response to the open-ended question at the end of the survey was: text messaging is “straight forward and to the point.” It allows for a quick message asking if they are close, whether they received the message, what time to meet, and short questions that require one or few word answers.

Another reason mentioned by participants in the open-ended question section of the survey was that SMS allows for a quick exchange of messages with someone the user does not wish to have an extended verbal conversation with. This was actually posed as H3, but was being measured based on gender. It should have been considered for a High User/Low User use, but wasn't.

Another reason for what many of the specific behaviors tested (H1–H3, and H6–H10) was the manipulation of time and space. According to the findings in this study, High-usage users are more likely to send text messages to others when they are in a group of people instead of being alone (H10). They will also use SMS to escape from those
around them if they are in public and don't want to be in that situation (H9). This allows the user to stay in contact with those who are not present. This has both advantages and disadvantages. One benefit is that communicating with those not present can be easy, and may be done on a more consistent basis. You can even contact those not present while you are interacting with those who are. This could be perceived as a benefit but actually creates a problem. While the user is onstage, they are actually not interacting with those onstage. As cited earlier, the term 'lost in backstage' also plays a significant role in onstage interaction. People using SMS can stop talking and interacting with those who are physically present around them (Rosen, 2004). Again, they may be onstage, but they may be present only physically. Their mind, their attention, and their communication are all focused on a little device instead.

There is another problem. Some users may try to be onstage physically while carrying on multiple backstage conversations. Backstage communication may get mixed up with trying to text multiple people at once. For example, Memorial Day 2007 a friend of mine named Jason related to me the following story. He was at a barbeque onstage with a group of about 25-30 people. At that exact same time he was backstage texting his Dad and his friend Jenny. He was receiving and sending texts from them at the exact same time through his single cellular unit. He got a text from his Dad as he sent a text to Jenny about a joke he had regarding Justin Timberlake's song Sexy Back, only there was no mention of the artist in the text message. His Dad received the text that Jenny should have gotten. Later, he got a call from his Dad wondering what he had meant by bringing sexy back.
All of these uses coincide with the uses reported by O'Keefe & Sulanowski (1995) in their study on mobile phones: overcoming loneliness and isolation, saving face (saying things that one would rather not say face to face), little emotional interplay, and avoiding small talk.

O'Keefe & Sulanowski (1995) reported that a user was more likely to seek entertainment, time management and social interaction, when more time was spent using the medium. With relationship to H5, text messaging may be used more often because it is used for social purposes and higher users might be more comfortable juggling these social tasks.

Gender and High/Low User

H4 predicted that females used SMS more than males but it was not supported. While running a few different tests aside from those to support the hypothesis, some very interesting breakdown was found.

I tested four of the hypotheses on Gender and the other five on High/Low User. With the Gender hypotheses being not supported and the High/Low User being supported I decided to run another t-test on the two variables together. The categories broke down into High, Medium, and Lower Users, and which Gender was predominant in each category. Those who sent less than 100 text messages a month (Low User) were female. Those who sent more than 1000 text message a month (High User) were also female. Those who sent between 100–1000 text messages a month, the Mid Users were male.

This creates a few problems. First, it contradicts H4. It would appear that females do send more text messages per month because they dominate the high user
category. It would also appear they send the least too, thus not supporting H4 and having consistent findings with previous tests. With this one test contradicting and supporting H4 at the exact same time, it raises reason for further investigation.

It also creates a second problem. While measuring the hypothesis of High/Low use, both categories are dominated by females. It could be argued that the High/Low user variables are also measuring females against females.

It does however bring up the point that just because females dominate the high user category, it doesn't mean that they will use those messages sent for the specific way. It could also mean you have a small percentage of Females sending high amounts of messages. Males still have just as much of a possibility as using SMS for certain uses as females do, even though it would appear that females do send more text messages per month.

Time and Space

Though not part of the hypotheses, there were open-ended questions presented on the survey to the participants about where they send SMS messages and where they don't send them. The most common answer was they sent them while at home. Many respondents wrote they sent them anywhere and all the time. Some of them included, "anywhere I get service," "anywhere as long as I'm not busy," and "wherever I may be at." Other answers included with friends, out running errands, or doing things (parties). A few of the rarer places people mentioned were on the toilet, in bed as they were falling asleep, loud places, the movies, and places with long waits. Some of the places they
mentioned they did not send text messages were from church, a funeral, in the bathroom, and on a date.

Three places were mentioned by participants in both categories. First was while in the car. Some mentioned they only did it while stopped at stop signs, and others specifically mentioned they did it while driving. Second was at work. Some participants wrote they text from work while others said they didn't. Some specified they only did it while on their break, or not in front of their boss. Third was while at school. Many participants responded that they sent them while in class (during a class lecture). Others mentioned they didn't do it during certain classes if the professor had a problem with it and during tests.

Limitations

Two of the most obvious limitations of this study are limited demographic variability and sample size. The majority of the participants are college age students between 19 and 21 years. Using a larger age range would have allowed for a better representation of society as a whole. In particular, older respondents may not have been as familiar with SMS technology and may have had completely different uses for it.

Sample size could have helped increase the validity of the survey. Only 150 were collected. This was due to time limitation and a small operating budget.

Another limitation to the study was the type of study that was done and the question structure. It was initially suggested that the study be a factor analysis with around 600 surveys being passed out in order to follow the example of earlier Uses and Gratifications research. Instead of Likert scale-type questions, more qualitative questions
could have been incorporated into the study. Part of the Uses and Gratifications theory, as discussed in the literature review, is building a list of all uses for a specific technology. Instead of looking to find a complete list of all the uses, only eight specific uses were selected and examined in this study.

Closing the Gap

SMS is changing the way we communicate. The more we use it as a means of communication the more we increase our mobile contact with some and diminish it with others. People are not being excluded based on gender. Those who text message less will be left behind and those who use it more will continue to move forward.

Based on my findings and my own personal experiences with the technology, text messaging needs to be standardized by all the major cell phone carriers. Each hand held device does texting differently and teach service provider offers it differently. Each time you get a new phone or change providers you have to relearn who to text specifically for that phone and company. Being the providers of the service, they should educate their customers on how to use it. They need to make it inexpensive to text message across provider networks. Texting friends and family who have mobile service through another carrier, such as Verizon to T-Mobile, can get costly if one doesn't have a text plan. The cell phone designers need to keep some sort of consistent alpha numeric numbering system for all phones. Some of the symbols that are available can vary from one to two letters per key (full keyboard and Blackberry), and some even have as much as four letters per key. All phone manufacturers need to make their mobile devices have the same key pad structure. Service providers also need to have some sort of manual, online
training guide, or self help option on the phone to help coach people in how to text message. With such training available to customers it would help close the communication gap between the high and low users. It would also add more customers to the user market, and more people would be text messaging. The service providers would also make more money being able to offer such a service to more of their customer base.

Further Research

With SMS only having been available to the public recently, the chance for research have been limited. The technology clearly merits more study in the future. This study found evidence that Higher Users are more prone to specific behaviors with SMS; specifically backstage communication, control over the conversation, a means of escape, a non-intrusive form of contact, and limiting verbal conversation. Future studies should focus on different behaviors, or possibly try and complete a Uses and Gratifications list of the technology as a whole.

Future research may also want to correct some of the shortcomings of this specific study. It should attempt to branch out into different age ranges. There is probably a very high use of text messaging in age brackets below age 18, and the uses would probably change or new ones would appear with ages above 30. It could address the question, do people carry on their uses as they age?

In many instances with technology, as it becomes out-dated, its uses will change into something else. The medium will also evolve into new forms of technology, as the landline phone has evolved to the mobile phone to text messaging. Having a thorough
basis of previous literature and research on SMS would greatly aid future research on the technology. It could also be compared to similar methods of communication, such as was done in this study with I.M. and Email.

The gap between 'onstage' and 'offstage' communication is an interesting area of research that is complicated by new communication technology. People are talking to each other more through cell phones, but also withdrawing from those who are around them. This, accompanied with cell phone etiquette in society and public, should warrant further study.
APPENDIX

RESEARCH SMS SURVEY
Cell Phone Use Survey—Your responses will help us to better understand how people use cell phones.

We appreciate you taking time to participate in our survey. By completing this survey you are helping us come to understand why people use their cell phones. Please consider your responses carefully and answer honestly. Please check the most appropriate answer and respond to all the questions. We would like to thank you for your participation.

A.) Do you text message? Yes____ No____ (If No skip to Last Question)

B.) When do you text message?
   a. 9am–5pm
   b. 5pm–10pm
   c. 10pm–4am
   d. 6am–9am
   e. Weekend only
   f. All the time

C.) Where are the top three places you send text messages from?
   1.
   2.
   3.

D.) Is there any times or places you would not text message?
Now I would like to ask you a few questions about your cell phone use in general.

E.) How likely would you be to do any of the following:

   a. Use your cell phone to keep up on current events
      Very Unlikely  1 - 2 - 3 - 4 - 5  Very Likely

   b. Use your cell phone as something to do during down time
      Very Unlikely  1 - 2 - 3 - 4 - 5  Very Likely

   c. Use your cell phone because it has become a habit to have a cell phone
      Very Unlikely  1 - 2 - 3 - 4 - 5  Very Likely

   d. Use your cell phone to store personal information, numbers, dates, pictures, and messages.
      Very Unlikely  1 - 2 - 3 - 4 - 5  Very Likely

   e. Use your cell phone to keep in touch with others on a regular basis.
      Very Unlikely  1 - 2 - 3 - 4 - 5  Very Likely

   f. Use your cell phone for emergencies
      Very Unlikely  1 - 2 - 3 - 4 - 5  Very Likely

Now I would like to ask you a few questions about your text messaging use in general

F.) Do you text message using your cell phone?
   a.  yes
   b.  no (if no, please skip to the LAST QUESTION)

G.) How likely would you be to do one of the following:

Text messaging when you

Very Unlikely  1 - 2 - 3 - 4  Very Likely

60
are alone.

Edit a message before you send it. Very Unlikely 1 - 2 - 3 - 4 Very Likely

Text messaging when you are with your friends to keep in contact with those not present. Very Unlikely 1 - 2 - 3 - 4 Very Likely

Contact someone through SMS because it is less intrusive. Very Unlikely 1 - 2 - 3 - 4 Very Likely

Contact someone using SMS because it is more comfortable for you than face-to-face interaction. Very Unlikely 1 - 2 - 3 - 4 Very Likely

Text message with your friends with those not present to escape from those who are present. Very Unlikely 1 - 2 - 3 - 4 Very Likely

Contact someone through SMS because the recipient cannot be called. Very Unlikely 1 - 2 - 3 - 4 Very Likely

Contact someone who is in the same location to have a private conversation. Very Unlikely 1 - 2 - 3 - 4 Very Likely

Contact someone through SMS because you have control over the conversation. Very Unlikely 1 - 2 - 3 - 4 Very Likely

H.) What service provider do you use? ______________________

I.) How many text messages does your current service plan have on it Per Month: ________________ or Don’t Know ___

J.) Do you have unlimited text messages to members of the same provider?  Yes ___ No ___
K.) On average, how many text messages do you send...
   a day? _______
   a week? _______
   a month? _______

L.) Approximately what percentage of your text messages are for the following:
   ______% Professional
   ______% Personal

M.) What year did you first get your cell phone? _______

N.) What year did you start sending text messages using your cell phone? _______

O.) The following information will not be used to personally identify you and will only be used for demographic purposes:

   How old are you? _______

   Are you:
   a. ______ Female
   b. ______ Male

   Education Level
   a. ______ Freshman
   b. ______ Sophomore
   c. ______ Junior
   d. ______ Senior
   e. ______ Graduate student
   f. ______ Other

   Major: __________________________

P.) If you have any further comments about text messaging or this survey please add them here:

   ____________________________________________

Q.) What would encourage you to use text message, or use it more? Why?
REFERENCES

A Brief History of UK Text. (2005). Retrieved on December 1, 2005, from
http://www.text.it/mediacentre/default.asp?intPageID=567


Technologies, p. 242-256


from http://www.aber.ac.uk/media.documents.short.usegrat.html


news media: The gratification-opportunities niche dimension. Journal of Media


VITA

Graduate College
University of Nevada, Las Vegas

Shayler Kimball White

Local Address:
879 Mesquite Springs Dr. #202
Mesquite, NV 89027

Home Address:
1764 Harvard St.
Longmont, Co 80503

Degrees:
Bachelor of Science, Communication, 2004
Brigham Young University-Idaho, Rexburg ID

Associate of Science, Communication, 1999
Ricks College, Rexburg ID

Thesis Title: The Social Uses And Gratifications Of Text Messaging

Thesis Examination Committee:
Chairperson, Dr. Julian Kilker, Ph.D
Committee Member, Dr. Anthony J. Ferri, Ph.D
Committee Member, Dr. Daniel A. Stout, Ph.D
Graduate Faculty Representative, Dr. Donovan Conley, Ph.D