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THE GRATIFICATION NICHES OF INTERNET SOCIAL NETWORKING, E-MAIL, AND FACE-TO-FACE COMMUNICATION

by

Rob Nyland

A Master's Thesis submitted to the faculty of

Brigham Young University

In partial fulfillment of the requirements for the degree of

Master of Arts Department of Communications

Brigham Young University

December 2007

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BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

Of a Master's Thesis submitted by

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This Master's Thesis has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory

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BRIGHAM YOUNG UNIVERSITY

As chair of the candidate's graduate committee, I have read the thesis of Robert S. Nyland in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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ABSTRACT

THE GRATIFICATION NICHES OF INTERNET SOCIAL NETWORKING, E-MAIL, AND FACE-TO-FACE COMMUNICATION

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Internet social networking sites have been the source of much speculation and controversy in the few years that they have been in existence. These sites (the most popular being MySpace and Facebook) allow their users to create online profiles, with which they can post pictures of themselves and interact with other users via text-based messaging. These sites are especially popular among teens and young adults, many of whom find their lives controlled by these sites. Utilizing the Uses and Gratificatioons approach in combination with the theory of the niche, the aim of this study is to understand the gratifications that are derived from the use of social networking sites, and how those gratifications compare with those obtained from the use of other communications methods (face-to-face communication and e-mail). Additionally, the

study explores whether or not there has been a displacement effect for these older media with the introduction of social networking.

A sample of 340 undergraduate and graduate students from a large western university were surveyed in-class regarding their use of three communications media (internet social networking, e-mail, and face-to-face communication). Students responded to 25 gratifications statements for each medium, rating how often they had used it for that particular purpose. They also responded to a question regarding whether their use of e-mail and face-to-face conversation has changed since they started using social networking sites.

Answers from the gratification statements were subjected to principal component factor analysis using varimax rotation. After throwing out 10 statements due to their incompatibility across the three media, three gratification factors emerged: Gratification Opportunities, Social Utility, and Entertainment. Then using niche formulas, the media was compared across these three factors. Overall, face-to-face communication had the broadest niche, signalling that is best capable of fulfilling media gratifications. It also had the broadest niche in the Social Utility and Entertainment Factor, while e-mail had the broadest niche in the Gratifications Opportunities dimension. The results suggest that social networking may be popular because it acts as a convenient place to hang out – combining its relatively broad niches in Gratifications Opportunities and Entertainment gratifications, but shows little support for a displacement effect caused by its adoption.

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CHAPTER 1

INTRODUCTION

In the past few years, the phenomenon of Internet social networking has taken over much of the landscape of the World Wide Web. These sites (the most popular being MySpace and Facebook) allow users to create a virtual persona in the form of an online profile. These profiles are filled with pictures of the user as well as personal information, including preferences in movies, music, and books. Users can then add other users as "friends" with whom they can send both public and private messages.

The popularity of these sites, particularly among youth, is undeniable: MySpace, the most popular internet social networking site in America, has consistently ranked in the top 10 of all websites in the world for the past year (Alexa.com, 2007), and in 2005 was purchased by Rupert Murdoch's media conglomerate News Corp for \$580 million (Mintz, 2006). Another popular American social networking site, Facebook, which is built around the structure of existing community environments (college campuses, high schools) boasts an 85% registration rate at the colleges where the network is set up (Arrington, 2005).

Social networking is one of the newest forms of Computer Mediated

Communication (CMC). This form of communication relies on technology such as email and instant messaging. These technologies functions as substitutes or supplements
for face-to-face interactions with the purpose of making processes of communication
more mobile and convenient.

The main users of these technologies seem to be the younger demographic who differ from older generations in the way that use such tools. In a study produced by the Kaiser Family Foundation, the lives of American youth are described as "media saturated" with 8 to 18 year olds having an average of 1.5 computers in their homes (Roberts, Foehr & Rideout, 2005). The study also suggests that youth are becoming increasingly apt at media multitasking: in a day, youth are cramming 8.5 hours of media content into a period of 6.5 hours of total media exposure (Roberts, Foehr & Rideout, 2005).

The ways that adolescents are using media, particularly the web, seems to be different from their older generational counterparts. The younger generation has been described as *Digital Natives*, having grown up in this environment, while the older generation is described as *Digital Immigrants* (Prensky as cited in Mee, 2006). Another author expands on this difference, commenting that adults "see the web as a supplement to their daily lives. They tap into information, buy books or send flowers...But for the most part, their social lives remain rooted in the traditional phone call and face-to-face interaction" (Hempel, 2005, p. 89). Youth on the other hand "use social networks as virtual community centers, a place to go and sit for a while (sometimes hours)" (Hempel, 2005, p. 89).

In testimony before Congress on social networking, Amanda Lenhart of the Pew Internet & American Life Project (Internet Child Predators, 2006) offered an explanation of why social networking sites are so popular among youth. She commented that social networks have two primary functions that are useful to young adults: The first is purely utilitarian: to communicate with others. danah boyd (2006) discusses how high schoolers

have informally adopted social networking sites as a social communication structure. She comments, "MySpace is a cultural requirement for American high school students. Or, as one teenager said, 'If you're not on MySpace, you don't exist.' Not all MySpace users are teenagers, but most American teenagers have accounts on MySpace" (para 3).

Lenhart also mentions that social networking sites allows users to play around in the creation of their own identities (Internet Child Predators, 2006). Upon closer examination, this is essentially the primary function of social networking websites. On each site, users are able to create their own profile—a virtual version of themselves. The situating of this limited amount of information creates an identity through which other users view that individual.

In the way that MySpace has become a cultural requirement for high schoolers, Facebook has changed the way students view their college campus. The site, which was created by Harvard dropout Mark Zuckerburg, has saturated university life. Sixty percent of students log in daily (Arrington, 2005) for an average use of 18 minutes per day (Anton, 2006). And in a recent survey of college students the social networking site tied with beer for second place for the thing that was "in" on campus (Survey: Ipods more popular than beer, 2006).

Statement of the Problem

While it may seem easy to understand why social networking sites have become so popular among this young demographic, what remains to be determined is why users are choosing it over other forms of interpersonal communication. In many ways, social networking accomplishes many of the same functions of other forms of mediated

interpersonal communication. Like email and text messaging, social networking users are able to send asynchronous messages to one another. However, unlike these other media, these messages can take different forms: Users can send private messages to one another or post a comment on their profile, which can bee seen by all who visit their profile page. Additionally, users of these sites keep their friends up to date on events in their life by posting photos and videos, or by inviting other users to events that they are hosting. When viewed this way, it may seem that individuals are choosing social networking use over computer-mediated communication because it is more personable.

Recently, however, there have been reports that some people have become dissatisfied with their usage of these social networking tools. In what has been described as "social networking fatigue", users are dropping off these sites because they feel that they are investing too much effort in maintaining their profiles (Chee, 2006). Some individuals discontinue their accounts or choose not to join because they would rather spend time with their friends, engaged in face-to-face interaction.

These anecdotal accounts lead us to believe that social networking services may not be fulfilling a need that is essential in the process of interpersonal communication. This focus on the fulfillment of needs derived from media is the basis of the Uses and Gratifications approach (Katz, Blumler & Gurevitch, 1973). Through the lens of this approach, social networking users come to the sites as active media participants, looking to have particular a need fulfilled. If they find that it fulfills their need, they will continue usage. However, if they find that their needs are not gratified through the usage of the medium, they will be more likely to turn to other sources for the fulfillment of those needs.

The process of choosing a communications medium that best fulfills audience needs creates competition between those media. This competition can be quantified by using what is known as the theory of the niche. This theory, derived from population ecology, was adapted by Dimmick & Rothenbuhler (1984) to explain how media technologies interact in "the multi-dimensional resource space of the environment" (Dimmick, Kline, and Stafford, 2000, p. 230). According to this theory, the amount of resources that a particular medium uses (its niche) can be measured in a specific dimension (for example: advertising market share). If two medium's niches are similar enough that they are competing for the same resources (i.e. television and radio), there will be a displacement effect and the inferior medium must adapt in order to survive. Similarly, media can compete for resources in the gratifications dimension. Those media with the greater gratifications niche will receive more usage, forcing the other media to adapt their niches.

While studies have explored gratification niches among various CMC technologies (Dimmick, Chen, and Li, 2004; Dimmick, Kline, Stafford, 2000; Flanagin, 2005; Randle, 2003), such an approach has not been used to explore the gratifications of social networking websites. In order to better understand internet social networking in relation to other communications methods, this study aims to accomplish several things: First, discover the primary needs that are fulfilled through the use of internet social networking tools and the relative advantages or disadvantages of internet social networking tools in comparison with other CMC technologies in the fulfillment of gratifications.

Next, as niche theory explains competition between similar media for resources, the study will also investigate whether there has been any displacement effect since users have begun using social networking tools.

Social networking is a phenomenon that has taken over the lives of many youth and perplexed the minds of many adults. There has been much moral panic from the public regarding the use, content and safety of these sites, yet there is little hard research investigating how individuals are using these sites. This study will be useful in filling this gap in several respects. First, by explicating the gratifications of social networking websites, it may be possible to identify why these sites have become so popular in the last several years. Second, comparing the gratification niches of social networking websites with those of other communication technologies will aid in understanding the benefits of social networking sites as a communications medium. If the benefits are great, there could be an increase in the use of web 2.0 applications, where users create profiles to share information. However, if these sites do not have noticeable benefits over other forms of communication technologies, there could be an increase in "social networking fatigue" as users turn to other sources of media for the gratification of interpersonal communication needs.

CHAPTER 2

LITERATURE REVIEW

In order to understand the gratification niches of social networking, a review of literature will be provided in three sections: First, a short research history of social networking technologies, and how this study adds to that literature. Second, a brief explanation of the uses and gratifications approach and how it has been utilized in identifying gratifications of the internet and other computer-mediated communication technologies. And finally, a look at the theory of the niche and how it has been applied to explore media competition, and how it can be used to investigate the world of internet social networking.

Social Networking

Because the internet social networking phenomenon is so new, at the present time, few studies have addressed it. The literature thus far has applied both qualitative and quantitative methodologies, focusing on a wide range of issues that surround social networking sites.

Several studies have focused on the privacy and safety issues that surround the use of social networking sites. In a survey of students from Carnegie Mellon University, researchers found that most users joined Facebook because their friends pressured them into it, or that they felt a need to meet and socialize with others at their school. This study also found that 80% of the students had not read the privacy policy for Facebook, and generally felt safe about publicly disclosing personal information in a campus

environment (Govani & Pashley, 2005). Other research has shown that student users of Facebook rarely changed the privacy settings of their account and as a result could be ripe for stalking (Gross & Acquisti, 2005). In a survey of MIT students about their Facebook usage, Jones and Soltren (2005) found that users who are more involved (have more friends) are more likely to disclose more personal information, and that although students may be aware that Facebook has privacy features build in, they choose not to use them.

In order to explore public perceptions of social networking use, Anton, Rey,
Abbot and Bugeja (2006) performed a framing analysis of articles in student and
mainline newspapers about social networking. Using concept mapping, they found that
student newspapers tended to focus on the more utilitarian aspects of Facebook usage.
The most common topics being sex & games, and relationships. Mainline newspapers,
on the other hand, tended to concentrate on the history and business of Facebook, as well
as issues with online security. Both student and mainline newspapers equally discussed
using Facebook, and stalking – although each of these issues was framed differently,
depending upon the audience.

Hewitt and Forte (2006) looked at the issue of faculty use of Facebook and the effect that it had upon student/teacher relationships. Overall, they found that two thirds of the students were comfortable with the presence of faculty on Facebook, but that overall it had no significant effect upon student ratings of the participating professor. Lin (2006) used the theory of planned behavior in an attempt to predict an individual's participation in an online social network. She found that factors such as members'

attitudes toward online social networks was a significant predictor of their overall use of such networks.

A study by Valkenburg, Peter, and Schouten (2006) examined the role of a Dutch online social networking site, cu2, on adolescent self-esteem. Their results shows that while the number of "friends" that individuals had on such sites did not affect the self-esteem of the user, their self-esteem was affected by the tone of the feedback that they received regarding their profiles.

Bellur, Obar, Xu, & Seo (2007) investigated how factors such as fear of negative evaluation and perceived risk mediated communication over Facebook. They found that fear of negative evaluation was not associated with the depth and breadth of communication that was exhibited on Facebook, indicating that Facebook users are less worried about making first impressions in their communications. However, they did find that perceived risk was both a significant predictor of depth and breadth.

Other research has begun to focus more closely on how individuals are using social networking sites. Using a population from Michigan State University, one study sought to explore the relationship between uses of Facebook and how individuals were involved with their campus environment. Overall, they measured five individual motivations for social networking use: (1) for filling up free time, (2) acquisition of information (about events, trends, music), (3) for keeping in touch with previously established relationships, (4) to meet new people, and (5) because everyone else is doing it ("critical mass of friends"). Out of these, the last had the highest mean score (4.07 out of 5) indicating that it is a strong motivation. This confirms that students are flocking to social networking sites because of peer pressure (Govani & Pashley, 2005). The strength

for the rest of the uses was as follows: to keep in touch with offline relationships (3.64), to fill up free time (3.60), information acquisition (2.25), and to meet new people (1.97). The comparison of these findings suggests that individuals are using social networks primarily as a social medium to communicate with already existing relationships, rather than to form new ones.

The authors also explored the relationship between Facebook usage and social capital (involvement in the social world). The results indicated that while general internet use was not a significant predictor of social capital levels, the intensity of Facebook usage was. This suggests that the more someone uses Facebook, the more connected they are to their campus environment. These results are slightly different to those of another study, which found that there was an inverse relationship between the use of social networking sites and feelings of social involvement (Nyland, Marvez, and Beck, 2007). However, Nyland et. al's (2007) sample contained mostly users of MySpace, which unlike Facebook is not based on geographically bounded real world communities.

Echoing Ellison's findings, Boogart (2006) found that most students agreed with statements saying that they used Facebook for relationship maintenance, while most disagreed that they used Facebook to meet new people. In regards to the relationship between Facebook usage and connection with the social environment, the results indicate that while there was no relationship between a student's use of Facebook and feelings of connection to their resident hall, there was a connection between usage and connection to a wider campus environment. Additionally, Boogart discovered that those students of color and non-heterosexuals reported greater levels of engagement to make social

connections. Those students with lower GPA's also indicated greater levels of Facebook usage.

In a study investigating the relationship between individual religiosity and internet social networking use, Nyland and Near (2007) performed an exploratory factor analysis of use statements and found five individuals uses of social networking sites: (1) meeting new people, (2) entertainment, (3) maintaining relationships, (4) learning about social events, and (5) sharing media. These uses are similar to those gratifications identified in previous internet gratifications studies and the social networking studies mentioned previously. In the study, no relationship was found between religiosity and overall social networking use; however, those individuals who were religious were more likely to use social networking sites to maintain existing relationships.

The present study not only seeks to identify the gratifications of social networking sites, but through utilizing the theory of the niche, identify and analyze the competition between different communications mediums for the fulfillment of gratifications.

Uses and Gratifications

This study focuses on the motivations of media audiences in the use of internet social networking tools. Such a focus is the basis of the uses and gratifications approach. Although several early mass communications studies, particularly those of the Payne Film studies, focused on the reasons that audiences attended to media content, the solidification of the uses and gratifications approach has been attributed Elihu Katz' work in the '60s and '70s. The approach is a reaction to the behavioralist, effects-driven

model of mass communications studies that was prevalent in the early 20th century. Katz, Blumler, and Gurevitch (1973) summarized the approach as being concerned

With (1) the social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) differential patterns of media exposure (or engagement in other activities), resulting in (6) need gratifications and (7) other consequences, perhaps mostly unintended ones (p. 510).

Turning the focus away from the effects of media content on audiences, the uses and gratifications approach instead explored audience motivations for attendance to media content – with particular focus on determining the needs that are gratified through the use of a particular medium. These needs were originally derived by asking media audiences open-ended questions. This is demonstrated by Blumler and McQuail (1969) who interviewed Britons in order to determine the reasons that they attended to political broadcasts during the elections. They grouped responses to the interviews into eight use statements relating specifically to reasons for watching political broadcasts.

McQuail, Blumler, and Brown (1972) further clarified the idea of needs by deriving four general categories of needs that are fulfilled through the use of mass media: The first, *diversion*, reflects a ritualized usage of media. Audiences attend to media content because it relieves them from stress and allows them to escape. The second, *Personal Relationships*, focuses on how the media operates as an alternative or supplement to social relationships. Certain media may function as a substitute for social relationships, or other media may facilitate the communication between two individuals. The third, *Personal identity or individual psychology*, addresses how individuals use the

media to reinforce self-concept and self-worth. The last need identified, *Surveillance*, reflects one's use of media to gather information about the world around them.

McQuail et al's study was replicated a few years later using an American audience. Through this analysis, Levy (1978) found that audience gratifications produced only three clusters rather than the four found in McQuail, Blumler and Brown (1972). The author cited cultural differences as a possible reason for this description, that the American news market is relatively oversaturated when compared to its British counterparts. In summation, he argues that McQuail's classification of gratifications does not adequately encompass the functions of television news, at least for American audiences (Levy, 1978).

While many early studies have pointed out the particular gratifications of an individual medium, two studies in particular take a cross-media approach, identifying and comparing the success of different media in fulfilling gratifications. Katz, Gurevitch and Haas (1973) interviewed 1500 Israelis in an attempt to understand the gratifications that are fulfilled by books, newspapers, radio, television, and cinema. Their analysis indicates that some media were better equipped to gratify particular needs more than others. Television was considered the least specialized of the media, as it was able to fulfill many different needs, while media like newspapers and films were the most specialized, fulfilling specific needs in information retrieval and self-gratification respectively.

This same approach was utilized in a study by Elliot and Quattlebaum (1979) who attempted to replicate the Israel study amongst an American audience. Their results are similar – television was considered the most diverse in its ability to fulfill needs.

Additionally, they found the presences of three clusters. Each cluster was composed of

media that fulfill similar gratifications (media that fulfill the same gratifications are referred to as functional alternatives). The first cluster was composed of television and radio; the second cluster was magazines and newspapers; while the final cluster contained the final four media: friends, films, books and recorded music. The idea is that individuals can use any of the media within a cluster to fulfill a particular gratification.

Since it inception as a method, the uses and gratifications approach has been applied to a variety of communications media – which encompass both mass and interpersonal media. The main thrusts of these studies have been to point out the individual gratifications that are obtained through the use of the particular medium.

Austin (1986) found seven motivational factors for audience attendance at movies: (1) Learning and information, (2) to forget and get away, (3) because it is an enjoyable and a pleasant activity, (4) to pass time, (5) to relieve loneliness, (6) because it is a behavioral resource, and (7) to learn about oneself. Within radio, two motivational factors emerged: information and entertainment (Toyers, 1987), while in a study of newspaper readership three of McQuail et al.'s (1972) factors emerged: diversion, surveillance, and interaction (Towers, 1985).

Within magazines, Payne, Severn, and Dozier (1988) looked at audience gratifications over three factors also derived from McQuail et al. (1972): diversion, interaction, and surveillance. The found that readers of general circulation magazines had higher diversion motivations, while readers of trade magazines had higher interaction and surveillance motivations.

While much of the focus of the uses and gratifications approach has been centered on audience gratifications from mass media messages, the approach has also been found

useful in understanding interpersonal channels, as interpersonal channels may be seen a coequal alternatives to the use of mass media (Rubin and Rubin, 1985). In studying motivations for interpersonal communication, Rubin and Rubin (1992) pointed out five motivations to communicate interpersonally: pleasure, inclusion, affection, control, and escape. While several of these match up with the categories of motivations provided by McQuail et al. (1972), the interpersonal motivations seems to be focused more on internal affective motivations rather than the functional motivations that are explicated in mass media studies.

Some research has also focused on media that foster interpersonal communications. O'Keefe and Sulanowski (1995) found four motivations for telephone use that encompass both interpersonal and mediated communication: sociability, entertainment, acquisition, and time management. In a more recent study, Leung and Wei (2000) explored motivations for using cellular phones. The results of their exploratory factor analysis produced seven motivations: (1) fashion and status, (2) affection and sociability, (3) relaxation, (4) mobility, (5) immediate access, (6) instrumentality, and (7) reassurance. Overall they found that for the use of cell phones, the instrumental motivations were stronger than the social motivations.

Gratifications of Internet Use

With the advent of the internet and computer-mediated communication, many researchers have begun to focus on why individuals are using these new technologies.

Investigation of internet communication technologies is interesting because of the nature of the medium. The internet is a hybrid of mass media and interpersonal communication

technologies. In one way, it can act as a database for an array of content derived from traditional media technologies: video, music, radio programs, and books. And in other ways, by using such technologies as instant messaging, e-mail, and social networking, it can act as a medium through which individuals can communicate interpersonally.

A breadth of research has attempted to explicate the gratifications that individuals find in all facets of the internet and internet communications. Early studies focused on general internet use: Papacharissi and Rubin (2000) identified five main uses of the internet though factor analysis: (1) Interpersonal utility (socializing with others), (2) to pass time (use the internet when they are bored or to occupy time), (3) for information seeking, (4) because it is convenient (often referred to elsewhere as gratification opportunities), and (5) for entertainment. Several of these motivations were related to each other, the highest being that those individuals who used the internet for social purposes were more likely to use it to pass time. Such a correlation suggests that computer-mediated communication may be ritualized processes, a finding that has been echoed in other findings (Metzger and Flanagin, 2002).

Papacharissi and Rubin (2000) also investigated the personal factors that predict internet use. Their results indicated that those individuals who found less gratification from face-to-face communication were more likely to use the internet. Relatedly, those individuals who felt more valued in their interpersonal environment were more likely to use the internet for informational purposes, while those who felt less valued were more likely to use it as a tool for social interaction.

Tewksbury and Althaus (2000) explored the difference between gratifications sought and gratifications obtained in regard to the use of the internet amongst a group of

college students. The gratifications sought are those things that we hope to attain from using a particular medium and the gratifications obtained are the actual gratifications that we receive. In their study, they tested several variables against five obtained gratifications of the web constructed from a review of the literature: course work, entertainment, information about issues & events, to pass time, and to assist in tasks.

Overall, they determined that gratifications sought were a significant predictor of gratifications obtained from the internet.

Additionally, the authors examined whether the gratifications that one sought from the web was a predictor of they type of web sites that the students regularly used. Using bivariate analysis, they determined that users were visiting those sites that were in line with the gratifications that they received from the web.

In a study on the gratifications of political web sites, Kaye and Johnson (2002) identified four motives for their use through factor analysis: guidance, information seeking/surveillance, entertainment, and social utility. They then explored the relationship of these uses against such personal factors as self-efficacy, strength of party affiliation, interest in politics, trust in government and the likelihood of voting. They found several significant relationships such as: higher levels of self efficacy were related with information seeking/surveillance and entertainment motivations, and greater interest in politics led to more use of these sites for social utility – indicating that individuals who have are engaged in politics are more likely to use political web sites as a forum where they can engage with other like-minded people.

In an attempt to increase the variance that has been explained by internet use studies, LaRose and Eastin (2004) merged the uses and gratifications approach with

Albert Bandura's Social Cognitive Theory. To do this, they replaced gratifications of web use with six expected outcomes to match the language of the social cognitive model. Many of the identified expected outcomes correspond with gratifications used in previous studies: Activity outcomes (similar to entertainment gratifications), monetary outcomes, novel outcomes (similar to information acquisition gratifications), social outcomes, self-reactive outcomes (similar to pass time gratifications), and status outcomes.

Ko, Cho and Roberts (2005) investigated the relationship between four internet motives (information, convenience, entertainment and social interaction) on the use of interactive web sites. They found that those individuals who had "high information, convenience and/or social interaction motivation for using the Internet tend to stay at a Web site longer to satisfy their corresponding motivations" (p. 66). This confirms one of the basic tenets of the uses and gratifications approach: that the fulfillment of gratifications will predict exposure (Katz, Blumler, and Gurevitch, 1973).

In looking at the research on gratifications of internet use, a few common factors seem to emerge: the use for social utility or to maintain relationships, for information acquisition, to pass time, and for entertainment. Overall these uses seem to match with those general gratifications of media use derived by McQuail et al. (1972), particularly those of diversion (similar to the entertainment and pass time internet gratifications), relationships (matched with the internet relational maintenance gratification), and surveillance (matches with information acquisition gratification).

Computer Mediated Communication as Functional Alternatives

While the previous studies have identified the specific gratifications of general internet use, later studies have endeavored to investigate the gratifications of computer-mediated communication. Such studies work under the notion that computer-mediated communication tools act as functional alternatives to forms of interpersonal communication. This concept is explicated by the Himmelweit, Oppenheim, and Vince (1958) in the functional equivalence model, which posited that when two media share similar functions, the newer media will displace the use of the other. Katz et al (1973) later commented that two media are seen as functionally equal when they fulfill the same audience gratifications.

An early study into the use of computers noted how it was the least successful medium in fulfilling any communication needs (Perse and Courtright, 1993). However, this study was done before the dissemination of the internet, and a birth of computer-mediated communication. However, as the internet has become faster and more widely adopted among its users, it has changed as a communications medium. Cai (2004) commented,

The computer has evolved from a single-task machine to a multidimensional medium. It has taken on more and more of the functions that traditional media possess. Computer users can watch videos, listen to the radio, read newspapers and magazines, etc., all on the same medium (p. 29).

In the same way that the internet has adopted many of the functions of traditional mass media, it has also adopted many of the functions that were originally relegated to traditional forms of interpersonal communication.

In addition to social networking, this study looked at a form of computermediated communication that can be seen as a functional counterpart to traditional faceto-face communication: e-mail.

E-mail (short for electronic mail) is an asynchronous form of computer-based text messaging, and similar in many ways to traditional forms of mail. Users set up an account through an e-mail provider and are given an address that is specific to the account. They can then send messages to the known addresses of other users in a near instantaneous process.

While this medium has not yet been specifically identified as a functional alternative to face-to-face communication or social networking, it is chosen for comparison in this study because of the similarity in its functional nature: it serves to facilitate interpersonal communication. Although there are other technological media that also foster interpersonal communication (instant messaging, text messaging, cell phones, web bulletin board, etc.), the limits of this study only allows us to investigate one computer mediated alternative and an interpersonal alternative to the use of social networking.

Flaherty, Pearse, and Rubin (1998) explored whether the internet and face-to-face communication were functional alternatives (meaning that they fulfilled the same communications gratifications). Overall, they found that face-to-face communication was superior to internet communication in the fulfillment of each gratification category.

Furthermore, their analysis found that the internet and face-to-face communication were only functional alternatives in two factors: pleasure and time shifting.

In an early study exploring the gratifications obtained from computer-mediated communication, Stafford, Kline, and Dimmick (1999) interviewed a group of adults from Ohio on their home e-mail usage. They found four main reasons that individuals use email: for interpersonal relationships, gratifications opportunities (the particular medium allows them to obtain gratifications more easily than any other medium), personal gain (informational gathering and recreation), and business reasons.

In one of the first studies to compare uses of traditional and new media, Metzger and Flanagin (2002) compared several mass and communications media in regards to their instrumental and ritualized use. They argued that each use defines a different audience orientation towards a certain media, equating ritualized use with passive media exposure, while instrumental use reflects a more active approach. Overall, they found that more traditional media, such as television tended to be used more ritualistically. In regards to the internet however, they found that while activities such as information retrieval tended to be high in instrumental use, the use of certain communications tools such as instant messaging reflected a ritualistic orientation.

The gratifications of instant messaging use are also the subject of several other studies. Leung (2001) looked at the use of ICQ, an early instant messaging program, among a group of students in Hong Kong. The factor analysis produced seven different factors in ICQ use: affection, entertainment, relaxation, fashion, inclusion, sociability, and escape.

Flanagin's (2005) study of general IM usage produced 4 factors: Social entertainment, social usefulness, entertainment, and task accomplishment. Flanagin then compared five different media (email, face to face communication, cell phones, landline

phones, and instant messaging) in their ability to fulfill each of these four gratifications.

Overall, face to face communication was the most useful and versatile channel for the fulfillment of needs, followed closely thereafter by cell phones and instant messaging.

Landline phones were the least able to fulfill each of the needs.

Because certain needs were fulfilled better by newer media (instant messaging) than older media (e-mail), Flanagin thought there might be a displacement effect from the arrival of the newer medium. In order to ascertain this, he asked whether individual's use of other media had changed with the introduction of instant messaging. He found that both email and landline telephones were being used significantly less with the advent of instant messaging, indicating a displacement effect.

While Flanagin compares the abilities of different media to attempt to fulfill the needs of individuals, he uses no theory to explain this competition. By using the theory of the niche, a researcher is able to quantify the gratifications that a media fulfills, and more empirically explore the displacement of that new media over older forms.

Theory of the Niche

The media's competition for the gratification of needs can be viewed through the lens of the theory of the niche. This theory is originally derived from population ecology, focusing on the consumption of resources in an environment by its population (Stiling, 2002). The niche of the population is the volume that it occupies within the n-dimensional resource space of an environment. These dimensions may be such resources as temperature, food size, pH levels and oxygen (Hutchinson, 1978). Elton (1927) comments,

A niche indicates what place the given species occupies in a community, i.e., what are its habits, food and mode of life. It is admitted that as a result of competition two similar species scarcely ever occupy similar niches, but displace each other in such a manner that each takes possession of certain peculiar kinds of food and modes of life in which it has an advantage over its competition (p.19)

The theory specifies that there must be some critical difference in the niches of forms in order for them to coexist. If two species within the environment have overlapping niches (for example they eat the same types of food) the inferior species will be forced to adapt their niche in order to survive.

The theory of the niche was later adapted into the study of communications by Dimmick and Rothenbuhler (1984a; 1984b) as a method of explaining competition within the media environment and the consequences of a rise of a new medium. In this approach, media environments can be seen as ecological spaces, with the populations of that environment competing for its resources.

Studies that have utilized niche theory in approaching the media have done so looking at the competition over two specific resources: advertising resources and audience gratifications. In their first study applying niche theory, Dimmick and Rothenbuhler (1984a) investigated competition between four industries (newspapers, television, radio, and outdoor advertising) for advertising revenues between 1935 and 1980. They found that as the television was adopted, radio was forced to adapt its niche and focus on local advertising rather than national advertising.

This same approach was taken in investigating the competition between the cable and broadcast industries (Dimmick, Patterson, and Albarran, 1992). Through niche

analysis, they determined that the greatest amount of competition for advertising resources existed between television and cable. However, they argued that if any displacement does occur by the inclusion of cable in the media playing field, it would be a slow process.

The second set of studies combines the uses and gratifications approach to the theory of the niche. In this set, the resource in competition is the gratifications of media audiences. If a new media arises which fulfills the same gratifications as an older media, the old media will either become extinct or will be forced to adapt its niche.

Niche studies use three main parameters in order to measure the competition of media over the fulfillment of gratifications: niche breadth, niche overlap, and superiority. The *breadth* of a niche is "the distance through a niche along a particular axis or dimension" (Dimmick and Rothenbuhler, 1984a, p. 106) or in other words how many gratifications a particular medium fulfills. A form of media that fulfills several different gratifications would be considered to have a broad niche and are considered "generalists", while those media that only fulfill a few gratifications would have a narrow breadth and would be considered "specialists" (Dimmick and Rothenbuhler, 1984a).

Niche overlap is a measure of the amount of resources that are shared by two populations within an environment. Greater overlap indicates similar niches between populations, thus signaling greater competition between those populations (Dimmick and Rothenbuhler, 1984a). In measuring media gratifications, high overlap would exist between two forms of media that fulfill the same gratifications. As mentioned previously, when two media fulfill the same gratifications they are considered functional alternatives.

Finally, *Niche Superiority* is a measure designed to illustrate the competitive superiority of one media over another. Those media that have significantly higher superiority scores are superior in their abilities to gratify the needs of media audiences and will likely compete and win (Dimmick et al, 2000).

Albarran and Dimmick (1993) used the theory of the niche to investigate competition in the video entertainment market (including cable television, VCR, premium television and pay-per-view) over three gratifications assessed through factor analysis: cognitive, affective, and gratification opportunities. Overall, they found that cable television had the broadest niche, followed thereafter by television. VCRs had the broadest niche in the Gratification Opportunities category, indicating that although it may not be the best at filling cognitive or affective gratifications, it is seen as the most convenient of the media.

More recent studies have investigated the competition over gratifications in the world of online media. Dimmick, Kline, and Stafford (2000) compared e-mail and landline telephones in regards to their fulfillment of two gratifications obtained through exploratory factor analysis: sociability gratifications and gratification opportunities. Overall, they found that telephones had the broader niche in sociability gratifications dimension, while e-mail had the broader niche in the gratifications opportunities dimensions. The results indicate that there is moderately strong competition between e-mail and the telephone, with the telephone shown as superior in the sociability gratifications and e-mail superior in the gratification opportunities. This indicates that telephone is more useful in giving a person a feeling of companionship, while e-mail is seen as a more convenient way of communicating.

In order to understand whether e-mail has caused any displacement effects, respondents were asked whether or not their use of the telephone had changed with the introduction of e-mail. Nearly half of the respondents reported that they were making fewer long-distance calls, with the other half saying that there was little or no change, thus suggesting that a displacement effect has taken place.

Randle (2003) found a moderate amount of competition between the print magazines and the web in the fulfillment of affective and cognitive gratifications.

Overall, the web was superior in its ability to fulfill cognitive gratifications (which is similar to gratification opportunities), indicating that the people find the web to be more convenient in providing the information they need. The internet and print magazines were found equal in their ability to fulfill affective gratifications.

In the most recent niche study, Dimmick, Chen and Li (2004) explored competition between the internet and several other traditional media (cable, VCR, newspapers, and radio) as a news source in the gratification-opportunities dimension. Unlike audience gratifications measures, "gratification opportunities reflect characteristics of a medium rather than attributes of individual consumers" (p. 22). The study was aimed at the belief that each medium was the most convenient and versatile in fulfilling audience needs from a particular medium. Overall, the internet was found to have the broadest niche in the gratification opportunities dimension, followed by cable, television, newspapers and radio. In the end the internet was measured as superior in providing opportunities for gratifications over every medium except for cable, with which it shared the highest degree of overlap. Additionally, the descriptive data from the study

suggests that there has been a displacement effect in news source since the internet was introduced.

The aim of the current study is to examine the competition between a new internet communication tool – internet social networking – with other forms of interpersonal and mediated communications.

Niche Gratification Measures

In order to measure competition along the gratifications dimension, several formulas have been developed. Niche *breadth* of gratifications can be calculated using a modified niche formula (Dimmick et al, 2000):

$$B = \sum_{n=1}^{N} \frac{\left[\left(\sum_{k=1}^{K} GO_n \right) - Kl \right]}{K(u-l)}$$

Where

u, l = the upper and lower bounds of a scale

GO = a gratification obtained rating on a scale

N= the number of respondents using a medium

n =the first respondent

K= the number of scales on a dimension

k =the first gratification scale

The *Niche overlap* of gratifications can be calculated by using a modified niche formula (Dimmick et al., 2000):

$$O_{i, j} = \frac{\sum_{n=1}^{N} \sqrt{\frac{(GO_i - GO_j)^2}{K}}}{N}$$

Where:

i, j = medium i and medium j

GO= a gratification obtained rating on a scale for i and j

N= the number of respondents who use both i and j

n= the first respondent

K= the number of scales on a dimension

The gratifications *Niche Superiority* score of a medium can be assessed with the following formula (© 1985, J. Dimmick):

Superiority $S_{i > j} =$

$$\frac{\sum_{n=1}^{N}\sum_{k=1}^{K}(m_{i>j})}{N}$$

Superiority $S_{j > i}$ =

$$\frac{\sum_{n=1}^{N} \sum_{k=1}^{K} (m_{j>i})}{N}$$

Where:

i, j = medium i and j

 $m_{i>j}$ = the value of a respondent's rating for those scale items on which i is rated greater than j (the sum of the actual values)

 $m_{j>i}$ = the value of a respondent's rating for those scale items on which j is rated greater than i (the sum of the actual values)

K =the number of scales on a dimension

k =the first gratification scale

N = the number of respondents who use both i and j

n =the first respondent

Research Questions

In order to understand the gratification niches of social networking use, the study will ask the following research questions, several of which are adapted from Randle (2003).

The first research question seeks to understand the gratification dimensions for which each medium is competing:

RQ1: What are the gratification dimensions of social networking websites, e-mail, and face-to-face communication?

The following questions apply gratification niche measures in order to explore competition between the communications media:

RQ2: As measured by niche breadth, what is the degree of specialism and generalism for social networking websites, e-mail, and face-to-face communications across gratification dimensions?

RQ3: As measured by niche overlap, what is the level of similarity between social networking websites, e-mail, and face-to-face communication in fulfilling media gratifications?

RQ4: Which media are superior to others on specific gratifications dimensions?

The last research question is designed to measure whether or not the adoption of social networking sites has produced time displacement effects towards the use of any other medium,

RQ5: Since adopting the use of social networking websites, has the use of other communications media increased, decreased, or stayed the same?

CHAPTER 3

METHODS

The present study seeks to understand gratifications that are obtained by users of several different communications media. A quantitative survey was used because it is helpful in determining the behaviors and opinions of a large group of people (Wimmer and Dominick, 2003).

Sample

A self-administered questionnaire was distributed via in-class administration to a large convenience sample of university students enrolled in introductory communications and general education courses. This method was deemed as the most appropriate because it allowed the survey to be distributed to a large group of people, while minimizing the self-selection bias that could be created through a volunteer-based survey. A total of 352 individuals responded to the survey. Due to incompletion, 12 surveys were thrown out leaving a total of 340 respondents. Of the respondents, 54% (N=182) were male, while 46% (N=158) were female. The average age of respondents was 23 years old. The distribution of students by class was as follows: 3.4% (N=12) of the students were freshmen, 20.4 % (N=71) were sophomores, 27.9 % (N=97) were juniors, 46.8% (N=163) were seniors, and 1.4% (N=5) were graduate students.

Of the 340 respondents, 62% (N=211) currently used some form of social networking. This is surprising considering data that indicates that social networking usage has nearly saturated university campuses (Arrington, 2005); however, this number

may be affected by the large number of seniors that composed the sample. This may also be affected by the religious nature of the university, and the fact that the use of social networking sites was discouraged by certain local ecclesiastical leaders (Coppins, 2006).

Of those individuals who use social networking, Facebook appears to be the site of choice with 92% (N=194) of social networking users having accounts. Following behind was MySpace, of which 34.6% (N=73) of the social networking users had accounts, with 13.3% (N=28) having accounts on other social networking sites.

Individuals who used social networking sites logged on an average of 2.67 times per day. When asked how much time individuals spend on social networking sites in an average day, 38.9% (N=82) responded that they used it for less than 10 minutes, 29.4% (N=62) used it for 10-19 minutes, 15.6% (N=33) used it for 20-29 minutes, 10% (N=21) used it for 30-39 minutes, and 6.2% (N=13) used it for more than 40 minutes.

Measures

Media Gratifications. Media gratifications are the motivations for audience members in attending to certain content. In order to measure this, respondents answered questions regarding gratifications they obtained from using four different communications media (face-to-face interaction, social networking websites, and email). Using a Likert-type scale, respondents were asked how often they used a medium to fulfill a particular need, with answers ranging from 1 ("never") to 5 ("almost always"). If a respondent was not a social networking user, he or she was invited to skip questions regarding the use of that medium.

The 25 gratifications statements were obtained from previous studies regarding the use of computer-mediated communication (Nyland et. al, 2007; Flanagin, 2005; Dimmick et. al, 2000) as well as a pilot questionnaire designed to determine additional gratifications for social networking use. The gratification statements are displayed in

Table 1.

Table 1

Gratification Statements

To occupy my time

To keep in touch with friends who live close to you

To give or received advice on personal matters or issues

Because it is quick or fast

Because it is simple or easy

To communicate easily

To provide information

To communicate with people in different time zones

To entertain myself

To share photos/video

Because it is convenient

For the ease of getting hold of someone

To find out about events

To keep in touch with people you don't have time to see in person

To pass time when bored

To keep in touch with friends or relatives who live far away

To meet new people

To feel or express care

To look at others photos/video

To get to know others

For the fun or pleasure of communicating

To find out interesting things

To learn about myself and others

To feel less lonely

To get people to do something for me

Media Displacement. In measuring competition between media for audience gratifications, one must assume that the quantity of those gratifications are finite.

Knowing this, the increased use of one particular medium to fulfill a gratification will result in the displacement of the competing medium.

Displacement was measured using a question derived from Dimmick et. al (2000) and Flanagin (2005). Respondents were asked if their use of e-mail and face-to-face conversation have "increased", "stayed the same" or "decreased" since they began using social networking sites. The answers could then show if there had been any displacement effect from the adoption of a new medium.

CHAPTER 4

RESULTS

RQ1: What are the gratification dimensions of social networking websites, e-mail, and face-to-face communication?

To answer the first research question, students' responses from the 25 gratifications statements for each medium were subjected to an exploratory factor analysis using Varimax Rotation. Initially, a subjective scree plot test was used to determine the number of factors for each medium. This is done by looking for the point at which the plots on the graph begin to form a straight line – the point before this is then determined to be the last factor (Gorsuch, 1983).

The scree plots suggested the presence of two major factors for social networking and e-mail, with a third factor arising for face-to-face communication. Upon further inspection, this third factor appeared to be comprised of items that were deemed as not possible for face-to-face communication such as: communicating with people in different time zones, and sharing photos and video (which may have been conceptualized only in digital terms). To even out the factors, these five items were eliminated from the initial factor loading.

After the elimination of these five items, another five items were deleted from the analysis because the same items did not load into the same factor across the different media. The deleted statements are included in Table 2. In looking at the discarded gratifications, it appears that these gratifications were thrown out because they could be fulfilled by each of the four media. The theory of the niche is ultimately about media

competition and displacement, and as such, niche measures require the competing media need to fulfill the same gratifications.

Table 2 *Thrown out gratification statements*

Items thrown out due to incompatibility across all media

To communicate with people in different time zones

To share photos/video

To keep in touch with people you don't have time to see in person

To keep in touch with friends or relatives who live far away

To look at others photos/video

Items thrown out for inconsistent loading on the same factor

To keep in touch with friends who live close to you

To provide information

To find out about events

For the fun or pleasure of communicating

To get people to do something for me

Once these were eliminated, the 15 remaining items loaded cleanly into three factors, all of which had Eigen values greater than 1. The first factor, *Gratification Opportunities*, contained five items that reflect the attributes of the medium that make it particularly convenient in providing gratifications. The second factor, *Social Utility*, contained seven items that reflect the social nature of the medium and its ability to allow communication between individuals. The final factor, *Entertainment*, contained three items that reflect the diversionary characteristics of the medium. The reliability of each of these factors was good with chronbach alpha values ranging from .79 to .91. The factor loadings, Eigen values, and reliabilities for each factor are displayed in Table 3.

Table 3
Factor Loadings, Scale Reliabilities, Eigen Values, and Variance Explained for Social Networking (SN), E-mail (EM), and Face-to-face communication (FTF)

| Factor | SN | EM | FTF |
|---|------|------|------|
| Gratification Opportunities | | | |
| Because it is quick or fast | .89 | .89 | .81 |
| Because it is simple or easy | .88 | .90 | .83 |
| To communicate easily | .83 | .88 | .63 |
| Because it is convenient | .81 | .85 | .78 |
| For the ease of getting hold of someone | .72 | .67 | .78 |
| Scale Reliability | .91 | .91 | .85 |
| Eigen Value | 5.94 | 5.85 | 2.33 |
| Variance explained | .40 | .39 | .16 |
| Social Utility | | | |
| To give or receive advice on personal matters or issues | .48 | .43 | .65 |
| To meet new people | .72 | .50 | .62 |
| To feel or express care | .65 | .63 | .76 |
| To get to know others | .76 | .72 | .74 |
| To find out interesting things | .55 | .62 | .79 |
| To learn about myself and others | .71 | .76 | .81 |
| To feel less lonely | .60 | .61 | .55 |
| Scale reliability | .81 | .79 | .86 |
| Eigen Value | 2.14 | 2.31 | 5.81 |
| Variance Explained | .14 | .15 | .38 |
| Entertainment | | | |
| To occupy my time | .84 | .80 | .79 |
| To entertain myself | .85 | .81 | .74 |
| To pass time when bored | .88 | .85 | .79 |
| Scale Reliability | .87 | .84 | .79 |
| Eigen Value | 1.49 | 1.15 | 1.12 |
| Variance explained | .10 | .08 | .07 |

RQ2: As measured by niche breadth, what is the degree of specialism and generalism for social networking websites, e-mail, and face-to-face communications across gratification dimensions?

To answer the second research question and ascertain the niche breadth for each of the gratifications, the scales developed from Research Question 1 were applied to the niche breadth formula. In interpreting these results, it should be noted that the upper bound of niche breadth is 1.0, and such a score indicates that a particular medium is considered more generalized—more capable of satisfying a wide variety of needs along a particular gratification (Randle, 2003)

Table 4 shows the niche breadth for each gratification, as well as the total niche breadth for each medium (weighted by variance explained).

Table 4
Niche Breadth scores for Social Networking (SN), E-mail (EM), and Face-to-face communication (FTF)

| Factor | SN | EM | FTF |
|-----------------------------|-----|-----|-----|
| Gratification Opportunities | .64 | .73 | .54 |
| Social Utility | .28 | .27 | .70 |
| Entertainment | .51 | .25 | .57 |
| Total Niche Breadth | .54 | .55 | .64 |
| (weighted by variance) | | | |

Overall, face-to-face communications has the greatest breadth (.64) indicating that it is the most capable of fulfilling the greatest variety of needs amongst these particular media. In this study, the power of face-to-face communication is manifested by its wide breadth along the Social Utility factor (.70). Face-to-face communication is also seen as having the widest niche breadth along the Entertainment factor (.57), being followed closely behind by social networking. The only gratification in which it falls behind is the Gratification Opportunities dimension where face-to-face communications is measured as

the most specialized (.54) fulfilling a narrower range of gratifications. Along this dimension, e-mail is considered the most generalized (.73).

RQ3: As measured by niche overlap, what is the level of similarity between social networking websites, e-mail, and face-to-face communication in fulfilling media gratifications?

Research Question 3 asks how much overlap there is between the different media in fulfilling specific gratifications. If two media are seen as being similar, they are considered functional alternatives for a particular gratification and are likely to compete with one another for audience gratifications. In order to measure this substitutability, the formula for niche overlap was applied to the answers to the gratifications statements. It has been suggested that an overlap score of 1.31 or less indicates a strong level of competition, while a score of 5.0 indicates total dissimilarity (Randle, 2003). The overlap scores for each of the media across the gratifications are listed in Table 5.

Table 5
Niche overlap scores for Social Networking (SN), E-mail (EM), and Face-to-face communication (FTF)

| Factor | SN/EM | SN/FTF | EM/FTF |
|-----------------------------|-------|--------|--------|
| Gratification Opportunities | 1.07 | 1.44 | 1.50 |
| Social Utility | 1.13 | 2.13 | 2.09 |
| Entertainment | 1.40 | 0.92 | 1.65 |
| Total Overlap | 1.12 | 1.70 | 1.77 |
| (weighted by variance) | | | |

Overall, social networking and e-mail seem to have the greatest level of overlap (1.12) indicating that the two media are similar in the gratifications that they fulfill and could be considered functional alternatives. Particularly, they compete heavily along the Gratification Opportunities dimension (1.07), indicating that users of both media see

them as convenient ways of fulfilling communication needs. They also compete heavily along the Social Utility dimension (1.13), indicating that users tend to find the same social gratifications when using either media.

Overall, the highest level of competition is between social networking and face-to-face communication along the Entertainment gratifications (0.92). This shows that unlike e-mail, social networking use has a heavy ritualized aspect, where users spend a lot of time just hanging out.

RQ4: Which media are superior to others on specific gratifications dimensions?

In order to answer Research Question 4 and determine which media is better at fulfilling particular communications gratifications, the formula for niche superiority was utilized. Those media that have a significantly higher superior score are deemed as superior at fulfilling a particular gratification. The results from the superiority tests are displayed below.

Table 6
Niche Superiority scores between Social Networking (SN) and E-mail (EM)

| Factor | SN vs. | EM | t |
|----------------------------------|--------|------|---------|
| Gratification Opportunities | 5.21 | 8.13 | 3.09** |
| Social Utility | 6.26 | 6.22 | 0.05 |
| Entertainment | 6.81 | 0.81 | 14.7*** |
| Total | 5.66 | 6.64 | 1.41 |
| (weighted by variance explained) | | | |

^{**}p<.01. ***p<.001

Although the overall superiority score for e-mail is higher than social networking, no significant difference was found between the two media (Table 6). However, significant differences could be found in the individual gratification categories. In the gratification opportunities factor, e-mail was measured seen as superior (8.13 vs. 5.21).

Neither medium is superior in the Social Utility gratification, while social networking is superior in the Entertainment factor (6.81 vs. 0.81).

Table 7
Niche superiority score between Social Networking (SN) and Face-to-face communication (FTF)

| Factor | SN vs. | FTF | t |
|----------------------------------|--------|-------|----------|
| Gratification Opportunities | 10.42 | 4.92 | 5.96*** |
| Social Utility | 1.10 | 23.73 | 32.02*** |
| Entertainment | 3.08 | 5.52 | 4.40*** |
| Total | 5.53 | 12.89 | 12.62*** |
| (weighted by variance explained) | | | |

^{***}p<.001

In comparing social networking and face-to-face communication (Table 7), face-to-face communication is deemed as superior overall (12.89 vs. 5.53). This superiority is mostly taken from the Social Utility gratification, in which there is a vast difference (23.73 vs. 1.10). Face-to-face communication is superior to social networking in the Entertainment gratifications factor to a lesser extent (5.52 vs. 3.08); while social networking shows it's only superiority in the Gratification Opportunities factor (10.42 vs. 2.92).

Table 8
Superiority scores between E-mail (EM) and Face-to-face (FTF) communication

| Factor | EM vs. | FTF | ť |
|---------------------------------|--------|-------|----------|
| Gratification Opportunities | 12.2 | 3.9 | 11.36*** |
| Social Utility | 1.32 | 23.09 | 39.99*** |
| Entertainment | .96 | 7.73 | 20.80*** |
| Total | 6.18 | 12.6 | 13.96*** |
| (Weighted by variance explained | d) | | |

^{***}p<.001

The competition between e-mail and face-to-face communication (Table 8) is similar to what is seen between social networking and face-to-face communication.

Overall, face to face communication is superior in its ability to fulfill gratifications (12.6)

vs. 6.18). Again, most of this superiority is taken from the Social Utility factor (23.09 vs. 1.32). Face-to-face communication is superior to e-mail in the Entertainment factor (7.73 vs. .96) while e-mail takes its only victory in the gratifications opportunities factor (12.2 vs. 3.9).

RQ5: Since adopting the use of social networking websites, has the use of other communications media increased, decreased, or stayed the same?

The last research question was designed to determine if the introduction of social networking has brought about any displacement effects. Respondents who used social networking were asked if their usage of e-mail and face-to-face communication had increased, decreased, or stayed the same since they began using social networking sites. The results of this question are displayed in Table 9.

Table 9
Changes in E-mail and Face-to-face communication since the beginning of Social networking use

| | E-mail | Face-to-Face |
|-----------------|--------|--------------|
| Increased | 19.0% | 6.2% |
| Stayed the Same | 61.1% | 87.7% |
| Decreased | 19.0% | 6.2% |

For both media, there are equal percentages of individuals who have increased and decreased their use of certain media since they began using social networking sites. While there doesn't appear to be a clear displacement effect, it seems that most of the displacement and competition is happening in e-mail usage.

CHAPTER 5

DISCUSSION

Overall, this study found three major factors that cut across social networking, e-mail, and face-to-face communication: Gratification Opportunities, Social Utility, and Entertainment. These factors are useful in helping identify general areas of motivation for use of each of these media, and more importantly acting as tools that can be used to compare motivations for the use of each medium.

These factors are consistent with those items that were found in previous studies. Gratification Opportunities are those items that represent the convenient nature of the medium, and comparable items can be found in other studies as "gratification opportunities" (Albarran and Dimmick, 1993; Dimmick, Kline, and Stafford; Dimmick, Chen and Li, 2004), "cognitive" (Randle, 2003), or "convenience" (Papacharissi and Rubin, 2000; Ko, Cho, and Roberts, 2005) factors.

The next factor, Social Utility, reflects those items that allow individuals to express themselves through communication media. It combines items found in early uses and gratifications studies, such as "personal relationships", "personal identity" and "surveillance" (McQuail, Blumler, and Brown, 1972), and similar items appear in internet use studies as "social utility" (Kaye and Johnson, 2000;), "interpersonal utility" (Papacharissi and Rubin, 2000), "social outcomes" (LaRose and Eastin, 2004), and "social usefulness" (Flanagin, 2005).

The final emerging factor, Entertainment, is comprised of items that are similar to McQuail, Blumler, and Brown's (1972) "diversion" item. Similar items appear in uses

and gratification literature as "Entertainment" (Papacharissi and Rubin, 2000; Tewksbury and Althaus, 2000; Kaye and Johnson, 2002; Ko, Cho, and Roberts, 2005; Leung, 2001; Flanagin, 2005), "activity outcomes" (LaRose and Eastin, 2004) and "filling up free time" (Ellison, Steinfeld, and Lampe, 2006).

Niche measures were employed to compare audience motivations for each media. First, *niche breadth* was utilized to show how generalized or specialized each medium was in fulfilling specific communications gratifications. Overall, face-to-face communication was found to be the most generalized, as it was able to fill the widest variety of needs. This finding is echoed in previous studies (Elliot & Quattlebaum, 1979; Flanagin, 2005; Flanagin & Metzger, 2001; Perse & Courtright, 1993) which argue that face-to-face communication is the best way to fulfill communications gratifications. This finding demonstrates the resilience of human interaction, and may calm the fears of individuals who feel that computer-mediated interaction is replacing face-to-face conversations.

E-mail had the broadest niche in the Gratification Opportunities niche, being superior to both social networking and face-to-face communication within that factor. The reason for this may be the straight-forward nature of e-mail communications. While the built-in messaging features of social networking sites may entice individuals because of its convenience (there is a fairly high level of overlap between social networking and e-mail in the Gratification Opportunities category), users may find more convenience from e-mail because it is a medium that is strictly built for communication, lacking the social and affective aspects of social networking sites. Because of this, users don't get

sidetracked in looking at someone else's profile, instead opting to engage in communication without any diversionary aspect.

Support for this argument is evidenced in the vast superiority of social networking over e-mail in fulfilling Entertainment gratifications (6.81 vs. 0.81 superiority scores). Because of the strict utilitarian nature of e-mail, users appear to be less likely to use it as a diversionary medium. Social networking sites, on the other hand, provide a venue where users can spend time not only sending messages to other users, but perusing others' profiles and looking at pictures, in a style that may be the digital equivalent to "hanging out".

In fact, one of the strongest features of social networking to emerge from this study seems to be its relatively wide niche within the Entertainment factor. Earlier, Hempel (2005) commented that youth "use social networks as virtual community centers, a place to go and sit for a while (sometimes hours)" (Hempel, p. 89). Unlike e-mail, social networking seems to have a heavy ritualized element, with individuals spending time with it for its diversionary nature. It should be noted, however, that in the end, social networking is eclipsed by face-to-face communication in its ability to fulfill Entertainment gratifications (5.52 vs. 3.08 superiority scores). This suggests that entertainment needs are not fulfilled as well in the virtual environment as in the real world.

In looking at the combination of social networking's Gratification Opportunities and Entertainment niche breadths, it is possible that social networking users may be using such sites as a "convenient" way of hanging out. Real-life obligations prevent individuals from spending all of their time hanging out in a face-to-face context. By using

social networking sites, individuals are able to hang out and interact in a virtual diachronic environment in anticipation of real world encounters.

Such a concept may be confirmed by the difference between communication that takes place online and the communication that takes place in the real world. This study indicates that face-to-face communications is superior to both social networking and e-mail communication in fulfilling Social Utility gratifications. Even though social networking is based around the idea of social media, it clearly cannot compare to face-to-face communication for such tasks as giving advice, expressing care and getting to know others. This may be for a few reasons: First, is this idea of "convenient hanging out". If social networks are used as a temporary site of interaction, individuals may be using it to send short messages, or comments. This is done in anticipation of real-world interaction, where longer and deeper messages can be given.

Second, such a narrow breadth in social gratifications may also be attributed to another factor. Computer mediated communication tools are considered to be lacking in "media richness." "Rich" media are those that can easily overcome any issues of communication ambiguity (Daft & Lengel, 1986). Face-to-face communication is considered to be the richest medium because it "...provides multiple cues via body language and tone of voice, and message content is expressed in natural language" and it also "...provides immediate feedback so that interpretation can be checked." (Daft & Lengel, 1986, pg 560). If individuals feel that they will not be able to clearly express themselves through social networking or e-mail, they may be less likely to look for those gratifications through that medium. Instead, they will use these computer-based

communication tools for their convenient features – sending short messages, but withholding deep social communication until it can be done in a face-to-face situation.

The final research question asked whether the use of social networking had caused a displacement in the use of alternative media. The answers for this are mixed: 88% of social networking users claimed that their use of the medium had not changed their amount of face-to-face interaction, with 6% claiming that they had used it more, and 6% claiming that they had used it less. The lack of evidence for displacement is not surprising considering the niche overlap and superiority scores between the two media. Overall, there was a minimal amount of competition between the media (1.70 overlap), with most of the overlap coming in the Entertainment gratifications (.92 overlap). Although there is high level of competition in this factor, similar overlap scores might be found between face-to-face communication and other diversionary media (television, movies). Social networking may just be the newest form of diversionary media, and as a result does not offer any threat of displacement. In fact, the superiority scores (5.52 vs. 3.08) indicate that face-to-face communication is viewed as superior in fulfilling Entertainment gratifications.

In investigating the displacement effects of social networking on the use of e-mail, there appears to be a bit more happening. Overall, 61% of respondents indicate that their social networking use has not displaced their use of e-mail, with 19% indicate that their use of e-mail has gone up and the final 19% claiming that their use has gone down. This greater amount of shuffling is reflective of the heavier competition between social networking and e-mail. An overall overlap score of 1.12 between the two media indicates that the media are similar in the gratifications that they fulfill, and as a result are

competing more for audience gratifications. Most of this competition is seen along the Gratifications Opportunities factor, with an overlap score of 1.07. It is in this factor that both social networking and e-mail find their broadest niches (.64 and .73 respectively) indicating that fulfilling Gratification Opportunities is the most salient features of both.

While there is not a clear displacement effect for either medium, it is interesting to note that there are equal amounts of increasing and decreasing for both. This may indicate that social networking has a different effect for different users. For some, it has a displacement effect: Individuals may replace their e-mail use with the messaging features that are available through internet social networking sites. They may also do the same for face-to-face communicating—increasing their real world contacts because they can communicate more easily with them through sites like MySpace and Facebook.

For others who reported that their use of social networking sites has increased their e-mail and face-to-face communication, it appears that the use of the medium has a catalytic effect on their media usage. As individuals use social networking sites to communicate with one another, it may provoke habits for digital communication, leading individuals to e-mail one another more frequently. Additionally, the use of social networking may prompt individuals to meet new people or become more widely connected with those around them, thus leading them to engage in more face to face interaction. However, for a majority of the population, a lack of strong competition between the media causes no displacement effects.

CHAPTER SIX

CONCLUSION

The purpose of this study was to explore motivations for use of a new communications phenomena, internet social networking. By utilizing the theory of the niche, the reader is better able to understand the gratifications of social networking use in comparison with two other communications alternatives (e-mail and face-to-face communication).

Interestingly, social networking was unsuccessful at having the broadest niche in any of the three factors analyzed: E-mail was more generalized in the Gratification opportunities factor, while face-to-face communication was more generalized in both the Social Utility and Entertainment factors. However, by looking at the superiority scores we can maybe begin to see the benefits and lure of social networking sites.

First, social networking was superior to face-to-face communication in fulfilling Gratification Opportunities, meaning that users find it more convenient to communicate with one another using social networks rather than talking face-to-face. No doubt, this is due to the diachronic nature of social networking communication, allowing users to communicate according to their own schedule. Social networking may also facilitate contact between individuals who do not have to capability of communicating on a regular basis.

Second, social networking was found to be superior to e-mail in its ability to fulfill Entertainment gratifications. While the messaging features of social networking

and e-mail are similar, it appears that the additional personal content on social networking sites make it more of a diversionary medium, soliciting users to spend time on the sites "hanging out". It seems that social networking's popularity is derived from its convenient form combined with its diversionary nature. Unlike television, the medium allows its users to spend time being entertained by the medium, while at the same adding a human interactive element to the media content.

The results of this study can also help explain "social networking" fatigue that was mentioned previously. Overall, while social networking sites may be convenient and entertaining, they are less apt at fulfilling social gratifications. It had a significantly lower score than face-to-face communication in fulfilling Social Utility gratifications. As mentioned previously, this may be due to the lack of social cues that are available through computer mediated communication. While users may use the medium to engage in short playful conversation, they are more reluctant to use social networking to engage in deep, emotionally involved conversation. According to the uses and gratifications approach if certain communications gratifications aren't met through the use of a medium, users will be less likely to use the medium in the future and may discontinue use all together.

This leaves the question of the future of social networking. Although it doesn't appear that social networking is on its way to replacing face-to-face interaction any time soon, it is difficult to determine if social networking sites are just a fad, or truly a new form of computer mediated communication. New applications appear on the internet everyday, with the intent of connecting people through music, movies, or books.

It seems more likely that there will be some interplay between social networking and e-mail in the future. While this study has indicated that there is not a clear displacement effect, it appears that there is a fair level of competition for certain audience gratifications between the two media. According to the niche theory, if two media are competing over the same gratifications, the media will have to adapt in order to survive. In this case we may find that social networking may begin to focus more on its diversionary features rather than its Gratification Opportunities, in which e-mail has the upper hand.

Limitations to the Study

The sample from this study was taken from a group of students at a highly religious university. Previously at this university, students were warned against the use of social networking sites (Coppins, 2006). Such attitudes toward social networking may have prompted the low number of individuals in the sample that currently have accounts on social networking sites.

Another limitation is the cross sectional nature of this design. While we are able to look at the relative gratifications at a certain moment. It is difficult to determine if there have been any displacement effects through the introduction of internet social networking. Additionally, a longitudinal design would help further ascertain the future social networking. By looking at gratifications fulfilled in two points in time, we would be able to determine if the breadth of gratifications for social networking is increasing or decreasing.

Areas for future research

The respondents for this study were drawn from university students. While many of these students were early adopters of social networking while in High School, it would seem that most have joined while they were in college, after social networking had been established for a while. These students then have to integrate the use of the medium into their work and school schedule as well as into a pre-existing media diet. It would be interesting to see if these results changed when looking at a younger population. It has been previously mentioned how social networking sites constitute a major part of socialization among high school students. Additionally, these students have grown up with social networking as a major part of their adolescent socialization. By conducting a niche study using such a population, we would be able to see if this medium fulfills gratifications differently among a younger demographic.

Also, in this study we have discussed how one of social networking primary draws is its diversionary nature. Individuals can spend hours of their time with the medium, while at the same time feeling like they are staying connected with individuals around them. It would therefore seem beneficial that niche studies be done comparing social networking with other mass-mediated media (television, radio, etc.), to see what kind of gratifications these media share and if there is any competition or displacement between the use of social networking and these media.

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Appendix A -- Social Networking Survey

Part 1

Internet social networking sites are websites that allow you create your own profile. Using this profile you can upload pictures of yourself and your friends, as well as list your favorite movies, music and books. You can then add other users as "friends", with whom you can exchange messages. Common examples include MySpace, Facebook, Friendster, and Xanga.

| Do you use any social networking we | ebsite? |
|---|--|
| | Yes |
| | No |
| If yes, answer the following questions: If no, turn to the next page | |
| , , | |
| Which social networking sites do you | |
| | MySpace |
| | Facebook |
| | Friendster |
| | Xanga |
| | Other: |
| On an average day, how many times | do you log onto social networking sites? |
| | time(s) |
| On an average day, how much time d | lo you spend on social networking sites? |
| On an average day, now much time o | less than 10 minutes |
| | 10-19 minutes |
| | 20-29 minutes |
| | 30-39 minutes |
| | more than 40 minutes |
| | |
| Since you began using social network communications methods increased | <u> </u> |
| E-mail: | decreased |
| L-man. | stayed the same |
| | increased |
| | |
| Face-to-face conv | ersation: |
| | decreased |
| | stayed the same |
| | increased |

Part 2

In the following section you will be given a set of motivations for using **social networking**, **e-mail**, **and face-to-face conversation**. For each media, **circle** how often you use that media for that particular purpose from 1(never) to 5 (all of the time). If you never use a certain medium (for example: you do not have a social networking account), you may skip the questions for that particular section.

I use Social Networking...

| . | never | | | | all the time | | |
|--|-------|---|---|---|--------------|--|--|
| To occupy my time: | 1 | 2 | 3 | 4 | 5 | | |
| To keep in touch with friends who live close to you: | 1 | 2 | 3 | 4 | 5 | | |
| To give or received advice on personal matters or issues: | 1 | 2 | 3 | 4 | 5 | | |
| Because it is quick or fast: | 1 | 2 | 3 | 4 | 5 | | |
| Because it is simple or easy: | 1 | 2 | 3 | 4 | 5 | | |
| To communicate easily: | 1 | 2 | 3 | 4 | 5 | | |
| To provide information: | 1 | 2 | 3 | 4 | 5 | | |
| To communicate with people in different time zones: | 1 | 2 | 3 | 4 | 5 | | |
| To entertain myself: | 1 | 2 | 3 | 4 | 5 | | |
| To share photos/video: | 1 | 2 | 3 | 4 | 5 | | |
| Because it is convenient: | 1 | 2 | 3 | 4 | 5 | | |
| For the ease of getting hold of someone: | 1 | 2 | 3 | 4 | 5 | | |
| To find out about events: | 1 | 2 | 3 | 4 | 5 | | |
| To keep in touch with people you don't have time to see in person: | 1 | 2 | 3 | 4 | 5 | | |
| To pass time when bored: | 1 | 2 | 3 | 4 | 5 | | |

| | never | | | all | of the time |
|---|-------|---|---|-----|-------------|
| To keep in touch with friends or relatives who live far away: | 1 | 2 | 3 | 4 | 5 |
| To meet new people: | 1 | 2 | 3 | 4 | 5 |
| To feel or express care: | 1 | 2 | 3 | 4 | 5 |
| To look at others photos/video: | 1 | 2 | 3 | 4 | 5 |
| To get to know others: | 1 | 2 | 3 | 4 | 5 |
| For the fun or pleasure of communicating: | 1 | 2 | 3 | 4 | 5 |
| To find out interesting things: | 1 | 2 | 3 | 4 | 5 |
| To learn about myself and others: | 1 | 2 | 3 | 4 | 5 |
| To feel less lonely: | 1 | 2 | 3 | 4 | 5 |
| To get people to do something for me: | 1 | 2 | 3 | 4 | 5 |
| I use E-mail | | | | | |
| To occupy my time: | 1 | 2 | 3 | 4 | 5 |
| To keep in touch with friends who live close to you: | 1 | 2 | 3 | 4 | 5 |
| To give or received advice on personal matters or issues: | 1 | 2 | 3 | 4 | 5 |
| Because it is quick or fast: | 1 | 2 | 3 | 4 | 5 |
| Because it is simple or easy: | 1 | 2 | 3 | 4 | 5 |
| To communicate easily: | 1 | 2 | 3 | 4 | 5 |
| To provide information: | 1 | 2 | 3 | 4 | 5 |
| To communicate with people in different time zones: | 1 | 2 | 3 | 4 | 5 |
| To entertain myself: | 1 | 2 | 3 | 4 | 5 |

| | never | | | all | of the time |
|--|-------|---|---|-----|-------------|
| To share photos/video: | 1 | 2 | 3 | 4 | 5 |
| Because it is convenient: | 1 | 2 | 3 | 4 | 5 |
| For the ease of getting hold of someone: | 1 | 2 | 3 | 4 | 5 |
| To find out about events: | 1 | 2 | 3 | 4 | 5 |
| To keep in touch with people you don't have time to see in person: | 1 | 2 | 3 | 4 | 5 |
| To pass time when bored: | 1 | 2 | 3 | 4 | 5 |
| To keep in touch with friends or relatives who live far away: | 1 | 2 | 3 | 4 | 5 |
| To meet new people: | 1 | 2 | 3 | 4 | 5 |
| To feel or express care: | 1 | 2 | 3 | 4 | 5 |
| To look at others photos/video: | 1 | 2 | 3 | 4 | 5 |
| To get to know others: | 1 | 2 | 3 | 4 | 5 |
| For the fun or pleasure of communicating: | 1 | 2 | 3 | 4 | 5 |
| To find out interesting things: | 1 | 2 | 3 | 4 | 5 |
| To learn about myself and others: | 1 | 2 | 3 | 4 | 5 |
| To feel less lonely: | 1 | 2 | 3 | 4 | 5 |
| To get people to do something for me: | 1 | 2 | 3 | 4 | 5 |
| I use face-to-face conversation | | | | | |
| To occupy my time: | 1 | 2 | 3 | 4 | 5 |
| To keep in touch with friends who live close to you: | 1 | 2 | 3 | 4 | 5 |
| To give or received advice on personal matters or issues: | 1 | 2 | 3 | 4 | 5 |

| Because it is quick or fast: | never 1 | 2 | 3 | all o | of the time 5 |
|--|------------|---|---|-------|------------------|
| Because it is simple or easy: | 1 | 2 | 3 | 4 | 5 |
| To communicate easily: | 1 | 2 | 3 | 4 | 5 |
| To provide information: | 1 | 2 | 3 | 4 | 5 |
| To communicate with people | · | _ | | · | |
| in different time zones: | 1 | 2 | 3 | 4 | 5 |
| To entertain myself: | 1 | 2 | 3 | 4 | 5 |
| To share photos/video: | 1 | 2 | 3 | 4 | 5 |
| Because it is convenient: | 1 | 2 | 3 | 4 | 5 |
| For the ease of getting hold of someone: | 1 | 2 | 3 | 4 | 5 |
| To find out about events: | 1 | 2 | 3 | 4 | 5 |
| To keep in touch with people you don't have time to see in person: | 1 | 2 | 3 | 4 | 5 |
| To pass time when bored: | 1 | 2 | 3 | 4 | 5 |
| To keep in touch with friends or relatives who live far away: | 1 | 2 | 3 | 4 | 5 |
| To meet new people: | 1 | 2 | 3 | 4 | 5 |
| To feel or express care: | 1 | 2 | 3 | 4 | 5 |
| To look at others photos/video: | 1 | 2 | 3 | 4 | 5 |
| To get to know others: | 1 | 2 | 3 | 4 | 5 |
| For the fun or pleasure of communicating: | 1 | 2 | 3 | 4 | 5 |
| To find out interesting things: | 1 | 2 | 3 | 4 | 5 |
| To learn about myself and others: | 1 | 2 | 3 | 4 | 5 |

| | never | | | | all of the time |
|------------------------------------|------------------------------------|-------|------|---|-----------------|
| To feel less lonely: | 1 | 2 | 3 | 4 | 5 |
| To get people to do something for | me: 1 | 2 | 3 | 4 | 5 |
| Part 3 | | | | | |
| Age: | | | | | |
| Gender: (check one) | Male Female | | | | |
| Year in School: | Freshm Sophon Junior Senior Gradua | nore | dent | | |
| Where is the main place that you a | ccess the inte | rnet? | | | |
| | Home School Work Other: | | | | |