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Running Head: THE 21st CENTURY ADDICTION

The Rochester Institute of Technology

Department of Communication

College of Liberal Arts

Internet Dependency, Motivations for Internet Use and Their Effect on Work

Productivity:

The 21st Century Addiction

by

Megan L. Hilts

A paper submitted

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in Communication & Media Technologies

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Abstract

Past research has studied peoples' addiction to the radio and television. Today some media scholars suggest that one can become addicted to or dependent on the Internet. The present study compares Internet use among college students and full-time employees to determine differences between those who are dependent and non-dependent Internet users, their motivations for Web sites visited and the effect of dependency on work productivity. The present study discovered that dependent Internet users are more likely to report that Internet use negatively affected their work productivity at both school and work and also reported higher levels of motivation for going online than non-dependents. No significant difference was found between students and full-time employees and their reported levels of Internet dependency.

Keywords: Addiction, Internet, Dependency, Motivations, Productivity

People can become addicted to many things; tobacco, drugs, alcohol. Some media observers suggest that people can also form addictions or habits to different forms of mass media that we use every day (Young, 1996). Substantial research has been conducted to study those who are addicted to television. Television addiction studies, similar to studies investigating drugs, report people addicted to television turn it on when they first wake up, feel they should lower their viewing time and felt symptoms of withdrawal when they go without viewing (Horvath, 2004). In light of the rapid growth and use of the Internet, scholars and media observers are concerned with people's Internet-dependency, much as they were in the past for radio, television and movies.

Most of us, especially college students, live in a world with email and wireless Internet available to use around the clock. At the touch of a button one can access a wealth of information, anytime, any day. This accessibility makes it easy for one to become reliant, even dependent, on the features the Internet provides. When supplied with a variety of media choices, consumers may fall into habitual patterns of media consumption; individuals do so in order to save mental resources instead of repeatedly engaging in active selection (LaRose & Eastin, 2004; LaRose, Lin & Eastin, 2003). This habitual use of the Internet may lead to Internet-dependency.

Becoming dependent on the Internet is a cause for concern. Cleveland (2007) argues that time spend on the Internet takes away from the task at hand, for example doing homework for college students or getting work done at the office. The present study compares Internet use among college students and full-time employees and the effect Internet-dependency has on their productivity. The study will also examine the motivations for visiting Web sites using principles from uses and gratifications theory. The present study seeks to determine the differences between

those who are dependent and non-dependent Internet users, their different motivations for Web sites visited and the effect on work productivity.

RQ1. What differences are there by sex and work status between self-reported Internet dependency?

RQ2. Are there differences between dependent and non-dependent Internet users and their self-reported motivations for Web site visitation?

RQ3. What difference is there between self-reported dependent and non-dependent Internet users and the self-reported effects Internet use has on work productivity?

RQ4. What are the differences in work productivity by Internet dependency and motivations?

RQ5. What are the differences in work productivity by Internet dependency and work status?

Rationale

I am Internet-dependent. My daily ritual includes eating breakfast while simultaneously checking my email, news headlines and recently updated social networks. This routine has developed and strengthened over the years. I feel anxious when I do not have access to the Internet and sometimes feel guilty about the amount of time I spend online. I visit sites mostly for personal contact, but also for entertainment and news purposes as well. There must be some effect on my work productivity because I frequently find the need to check email and browse other sites to fill gratifications for news, entertainment and surveillance.

Scholars have been worried about the effect of mass media on our lives for a century. They measured the effects of movies, radio, television and now the Internet on our daily lives.

McIlwraith (1998) studied television addiction and argued that self-labeled “TV Addicts” use television to “distract themselves from unpleasant thoughts, regulate moods, and fill time” (p. 372). Addiction to television has gone so far that people have acted violently towards others when they interrupted their television viewing (Horvath, 2004). People use media to gratify certain needs; people visit Web sites to fill some of those needs (Ko, 2002). Following the uses and gratifications model, habit can be formed around the motivations for using Internet Web sites such as surveillance and escapism (Diddi & LaRose, 2006). Scholars have long studied the motivations and effects media has on users and the present study seeks to better understand the implications surrounding the most recent communication medium, the Internet. Understanding motivations for visiting Web sites is vital to the success of e-commerce (Stafford, Stafford & Schkade, 2004). Studying uses and gratifications for using the Internet will lead to a better understanding of what it is we seek to gratify when constantly using the Internet.

The social rationale for studying Internet-dependency is its effect on our daily lives. Cleveland (2007) expresses his concern for the Internet habits of young people and the future of their work. He is worried that time that should be spent solving a problem is avoided by surfing the Net. Cleveland questions how people can give proper attention to the task at hand, be it homework or work pertaining to your full-time job if we are multitasking and compelled to check our email and favorite sites every few minutes. Cleveland is worried that young adults’ career potential is being sacrificed due to the bad habit of surfing the Net and the lack of discipline to prevent it. On the other hand, Holtz (2001) argues both the positives and negatives for Internet use. Holtz argues that work can be done faster because of the Internet. Time spent online may even allow more work to be completed because people bring work home with them

and they are available around the clock. Holtz (2001) also argues that given the opportunity to do personal things from work online, like fill a prescription, check one's bank account and other daily tasks saves time and possible days off from work for employees. The present study seeks to better understand the effects that being Internet-dependent may have on people's academic and job performance.

Literature Review

Media Dependency

Dependency stereotypically thought of as people who are dependent on some substance: tobacco, caffeine, drugs, alcohol. Past research suggests that people can become dependent on different forms of media (Horvath, 2004; McIlwraith, 1998; LaRose, Lin & Eastin, 2003; Diddi & LaRose, 2006; Young, 1996).

The American Psychiatric Association's (1994) *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) lists seven symptoms for dependence: tolerance (the need for more to achieve the desired effect), withdrawal, use for larger amounts over longer period of time, desire to cut down, significant time spent on the activity, reduced time spent on social, occupational or recreational activities, and user continues use despite knowledge of having persistent problem.

Marlatt, Baer, Doncan and Kivlahan (1988, p. 224) define addiction in the field of communication research as, "a repetitive habit pattern that increases the risk of disease and/or associated personal and social problems...often experienced subjectively as 'loss of control' [that] continues despite volitional attempts to abstain or moderate use." Dependent media

consumers feel as though they are compelled to consume media, despite the negative consequences that may occur (LaRose, Lin & Eastin, 2003). One way to better understand the idea of media addiction or dependency is to look at past forms of media in which people have become dependent on the medium.

Television Addiction

A study of television addiction by Horvath (2004) asked questions of participants that ranged from problems associated with viewing, heavy viewing, craving for viewing, withdrawal from viewing and other questions typical of addiction research. The results suggest that people scoring high on the Television Addiction Scale have a tendency to turn on the television when they first wake up, feel guilty about the amount of time they watch, feel they should lower their viewing time and are annoyed by criticism about their television watching. Those who watched a lot of television were also very likely to feel withdrawal from television when going without it.

According to McIlwraith (1998) self-labeled “TV Addicts” are “more neurotic, introverted, and easily bored,” they use television to escape from unpleasant moods and combat boredom. Some people have become so dependent of television that they become violent and harmful to others. One couple separated because the husband was resentful when his wife turned off the TV while he was sleeping and another man stabbed his sister to death after she removed the electrical fuse so he would stop watching television (Horvath, 2004). Some feel withdrawal when going without television viewing and some become violent, but one thing is certain, people can become dependent on television.

Internet Addiction

As with television, scholars are increasingly aware of people's dependency on the Internet (Young, 1996; Diddi & LaRose, 2006; LaRose, Lin & Eastin, 2003). Young (1996) conducted a study of 596 people and their levels of recreational (surfing the net for pleasure or personal interest) rather than academic or employment related purposes. The study classified dependent versus non-dependent Internet users based on responses to a number of questions previously used in gambling addiction research. The results revealed that dependent users spend a mean of 38.5 hours a week online; nearly eight times that of non-dependents. Dependents also gradually increased their Internet use as they became more familiar with the Internet, a tolerance level similar among alcoholics who increase consumption in order to achieve desired effect (Young, 1996).

Diddi and LaRose (2006) suggest that because we have so many media choices, consumers' lapse into habitual patterns to conserve mental resources, rather than repeatedly engaging in active selection. Internet use becomes problematic if the behavior starts to act as an important mechanism to relieve stress, loneliness, depression, or anxiety (LaRose, Lin & Eastin, 2003). Unlike TV, the Internet is an interactive medium that allows users a variety of features and tools. Similar to media in the past like television, the Internet has the propensity for users to become dependent on it. Internet dependency has affected enough people to prompt a website devoted to it. Netaddiction.com claims to treat people with everything from chat room addiction and compulsive surfing to compulsive online gambling and play gaming. The site has areas to help those with the addiction and areas where professionals and loved ones helping others can get help dealing with media addiction problems.

Non-dependent Internet viewers use the Internet as a useful resource for personal and business communication and dependents use aspects which allow them to meet, socialize, and exchange ideas through this highly interactive medium with new people (Young, 1996).

Dependent media users may also be prompted by cues such as boredom and escapism (LaRose, Lin & Eastin, 2003). Identifying the motivations for Internet use may help us to better understand why some people become dependent on the medium.

Uses and Gratifications Theory

Uses and gratifications falls under active-audience theories that focus on assessing what people “do” with media (Baran & Davis, 2006). Baran and Davis (2006) define uses and gratifications theory as the “approach to media study focusing on the uses to which people use media and the gratifications they seek from that use” (p. 262). Active-audience theories are important because they were the first to look at audience activity and the media in a more positive, audience centered way, compared to past theories which looked at media’s negative effect on audiences (Baran & Davis, 2006).

In the 1940s, scholars such as Herta Herzog, Paul Lazarsfeld and Frank Stanton showed interest in studying an active, gratifications-seeking audience (Baran & Davis, 2006; Ruggiero, 2000). During this time a shift occurred from the traditional effects model to a functionalism view (Ruggiero, 2000) and from audiences viewed as passive to the realization that audiences actively select their preferred content from the media (DeFleur & Ball-Rokeach, 1986). Earlier theories like the magic bullet, assumed audiences were passively waiting for media to provide them with content (DeFleur & Ball-Rokeach, 1986; Baran & Davis, 2006; Lowery & DeFleur, 1995). The history of active-audience theories and uses and gratifications theory is best

exemplified in the 1970s and 1980s when empirical and cultural studies researchers became progressively more interested in media audiences (Baran & Davis, 2006; Lowery & DeFleur, 1995). Researchers documented that people were not as passive as limited-effects theories assumed (Baran & Davis, 2006).

Herta Herzog is often credited as the originator of the uses and gratifications approach, but most likely did not give it its label. Her 1944 article, “Motivations and Gratifications of Daily Serial Listeners,” was the first published research to present an in-depth assessment of media gratifications. She interviewed radio soap-opera fans and identified major types of gratification; emotional release, wishful thinking and advice obtained from listening (Baran & Davis, 2006; Lowery & DeFleur, 1995). Herzog wanted to understand why. Unlike Lazarsfeld, she did not try to measure the influence, she assessed the audience’s reasons and experiences: their uses and gratifications (Baran & Davis, 2006; Peters & Simonson, 2004).

Bernard Berelson studied uses and gratifications during the New York City newspaper strike. The strike began on June 30, 1945 and lasted for two weeks. The study focused on what missing the newspaper meant to its readership. Berelson discovered that the newspaper meant a tremendous amount and provided different gratifications for different people. The newspaper was used for a variety of reasons including both for information and for practical uses. People turned to other sources like magazines, radio and non-local papers to satisfy these needs, but they did not fill the void people experienced without their regular newspaper (Lowery & DeFleur, 1995; Peters & Simonson, 2004).

Uses and gratifications theory has been used to evaluate people’s motivations for television, radio, print media and most recently the Internet (Stafford, 2003; Diddi & LaRose,

2006; Stafford, Stafford & Schkade, 2004). People visit the Internet to gratify all kinds of needs including work, school and other recreational purposes. Because we spend so much time online, assumedly filling certain needs, there is cause to wonder what and if at all this affects peoples' work efficiency.

Effect on Work Productivity

With the amount of time people spend online one must wonder what the effects excessive Internet use has on their lives. Young's (1996) study found that non-dependents report no adverse affects from spending time on the Internet, except they easily lost track of time while on online. Dependents, however, reported too much time spent online resulted in personal, family, and occupational troubles. It is becoming more and more apparent that overuse of the Internet could lead to problems in people's daily lives (Young, 1996; LaRose, Lin & Eastin, 2003).

The Internet at School

The Internet provides students with great opportunities to conduct research, take a class online and a number of other tools to aid in their education. With all the opportunities the Internet provides us with to increase our learning, research reveals that students can suffer from academic problems if they surf nonacademic Web sites for personal enjoyment (Young, 1996). Students reported that misuse of the Internet led to difficulty completing homework, studying for tests and getting enough sleep to be alert for class the next day (Young, 1996). In some extreme cases, students who failed to control their Internet use received poor grades, academic probation and expulsion (Young, 1996). Some say they can do it all, they can talk online while doing work, they can multi-task, but report cards are proving otherwise (Cleveland, 2007).

The issue is becoming increasingly more worrisome. William Woods University decided to take matters into their own hands to try to combat problems associated with overuse of the Internet (Kubey, Lavin & Barrows, 2001). The University instituted a program where students will earn \$5,000 towards the school's \$13,000 tuition as long as they score enough points by attending cultural events on campus. The school thought Internet use not only hurt their academic performance, but that it hurt their social interaction and cultural experiences as well. Kubey, Lavin and Barrows' (2001) study found that Internet-dependent students spent nearly three times more recreational time online a week than non-dependent students. Fourteen percent of students said schoolwork had been hurt occasionally, frequently, or very frequently because of their Internet use. Other responses included that the Internet kept them up late at night, they felt tired the next day, missed class due to Internet use and feelings of guilt for amount of time spent online. The Internet has many positive and constructive uses for the academic world, but it is evident that excessive Internet use can hinder students' academic performance.

The Internet on the Job

The Internet has also made valuable contributions to those in the working world. The Internet has increased communication, decreased the amount of time it takes to complete tasks, but the Internet has also caused some problems for those who spend time at work on the Internet for personal use (Young, 1996; Cleveland, 2007; Holtz, 2001). Cleveland (2007) questions the Internet's affect on work productivity by wondering if time being spent online to solve a problem is really being spent to avoid the problem by surfing the net. The Internet has had significant impact on how we find information and inspiration, but Cleveland claims people are using the Internet as an entertainment source as well, thus hindering a person's career potential. Young

(1996) finds the positives of the Internet definitely outweigh the negatives, but distraction caused by browsing the Web is a major concern for employers. Some employers have tried to control employees' personal use of the Internet by blocking access to certain Web sites or parts of the Internet and include policies for Internet use in their employee handbooks (Young, 1996; Holtz, 2001; "Employees bogging," 2007). Can we really be doing our best work possible if we are compelled to check out email, instant message and favorite Web sites every few minutes? (Cleveland, 2007).

The effect the Internet has on work productivity is controversial. Holtz (2001) argues that employees access to the Internet has allowed them to get things done faster, make appointments, fill prescriptions, and communicate with family while at work, therefore saving the company the time they would need to take off of work to do so (Holtz, 2001). Employees are also taking more of their work home with them, because the Internet allows for around the clock communication. The Internet increases efficiency in completing duties at work, but can be too distracting and cause problems at work for some.

Research has revealed that people have become dependent on different forms of media such as radio and television. Recently, some scholars suggest people can become dependent on the Internet. The Internet can be used for various reasons and has been documented that people use the Internet to gratify certain needs. The increased use of the Internet has also led some scholars to argue that time spent online takes away from time spent doing school work or finishing job related tasks. The present study seeks to better understand Internet dependency, motivations for Web sites visited and the effect the Internet has on one's work productivity.

Method

A convenience sample was taken from RIT students and employees of the College of Liberal Arts. An email was sent to all current RIT email address within the College of Liberal Arts with a link to the electronic survey instrument. Clipboard.rit.edu was used as the electronic survey instrument. The sample included 85 students and 26 employees. Of the students who responded 30 were male, 55 were female, 52 reported they were full-time undergraduate students, 19 said they were graduate students and 14 responded neither. Of the employees who participated 10 were male and, 16 female; all but one reported they worked full-time. Respondents were asked to report anonymously on their feelings towards their Internet use, reasons for visiting Web sites and the effect the Internet has on their daily lives. The survey instructed respondents to report only on recreational Internet use (using the Internet for purposes not required by school or job) as the researcher was not interested in measuring Internet use related to school or work (Kubey, Lavin & Barrows, 2001). An email address was provided for respondents to contact if they had questions or wished to receive results from the survey. (See Appendix A for survey.)

To study motivations for Web sites visited respondents indicated their level of agreement with 28 statements about why they go online. Statements were drawn from on studies previously conducted by Vincent and Basil (1997) and Hanjun, Chang-Hoan and Roberts (2005). Statements reflected five different motivations; surveillance, escapism, boredom, entertainment and social/personal. Surveillance statements included 2, 5, 9, 12, 17, 20, 23 and 28; escapism statements were 3, 10, 14, 22, 24; boredom statements were 4, 6, 15, 18, 25; entertainment statements were 1, 7, 13, 19, 26; social/personal statements were 8, 11, 16, 21 and 27. Motivation

statements 1 through 28, employed a five-point Likert scale (1- strongly agree to 5- strongly disagree) to assess respondents' self-reported agreement or disagreement with the statement. Likert scales have been used in past research to measure dependency, motivation and effect on work productivity (Kubey, Lavin& Barrows, 2001; Ko, 2002; Horvath, 2004).

To determine Internet dependency a series of eight statements were presented for respondents to indicate their level of agreement. Based on the criteria for dependency outlined in the American Psychiatric Association's (1994) Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and studies conducted by Young (1996) and Morahan-Martin and Schumacher (2000), respondents were asked to judge statements about their Internet use on a five-point scale (1- strongly disagree to 5-strongly agree). To help prevent response bias, three of the eight questions (31, 34, 38) were reversed scored. The respondents' scores were added up and those falling below the median were determined to be dependent Internet users and those scoring above the median were determined to be non-dependent Internet users.

To measure respondents' use of the Internet on their work productivity, five statements were mixed into the set of dependency questions that asked respondents to rate statements about their daily Internet activity. Response options for the statements use the same five point rating system as the previous questions (1-strongly disagree to 5-strongly agree). Statements were derived from a previous study of Internet use among college students by Morahan-Martin and Schumacher (2000). Limited research has been done in this area therefore some statements were designed by the author of this study. Statements 30 and 37 were reverse scored to prevent response bias. Like the measurement for dependency the median score determined if the respondent's Internet use has an effect on their work productivity.

Part three of the survey asked respondents to answer personal questions including age, gender and work status. These questions were asked to help describe the sample. A survey pretest with a convenience sample of 15 students showed concerns with the wording and the order of some questions. The survey was modified in response to the feedback. Students also reported the survey took them between five to ten minutes to complete.

Results

A total of 112 participant responses were able to be used for this study. A small number of responses were discarded due to respondents not answering all the questions. Respondents ranged in age from 19 to 57 years with an average of 24.5 years.

Dependency was determined by a median split of respondent scores. The full dependency scale ranged from 8 to 40; 8 being the least dependent and 40 being the most dependent. Respondents with a total score of 21 and above for the dependency questions were put in the dependent group (n= 47). Those with responses totaling less than 21 were determined to be non-dependent Internet users (n=65). The effect of the Internet on work productivity was determined the same way as Internet dependency with a scale of responses ranging from 5 to 25. Responses with a score of 11 and above were determined to have their work productivity affected by their Internet use (n=56) and those with a score of 10 and below were determined to not have their work productivity affected by the Internet (n=56).

Research question four inquired about the differences in work productivity by Internet dependency and motivation for Web site visits. A score for each respondent's motivations was determined by the average score respondents gave each set of motivation questions. Then each

motivations sample was split in half to determine those who are highly motivated by the specific motivation and those who were less motivated by the specific motivation. A two-way analysis of variance test compared the dependency category (dependent or non-dependent) and motivation category (highly motivated or less motivated) and the whole work productivity scale. No significant ($p > .05$) interaction effect was found on work productivity, by Internet dependency and motivation. However, the test did reveal a significant main effect for dependency ($p < .001$): Internet dependent respondents were more likely to report their work productivity suffered because of their dependency. This finding also responds to research question three which asked what differences are there between dependent and non-dependent Internet users and the effect Internet has on work productivity. There was also a significant main effect for three of the motivations tested ($p < .05$). Those who responded that they were highly motivated to go online for reasons of boredom, escapism and entertainment were most likely to have their work productivity suffer because of the time they spend online.

Research question two sought to learn if there are differences between dependent and non-dependent Internet users and their self-reported motivations for Web site visitation. Five t-tests were conducted to determine if motivations for going online differed between dependent and non-dependent Internet users. Respondents rated their level of agreement to a number of motivation questions on a scale from 1 (strongly disagree) to 5 (strongly agree). Respondents average response rate for each of the motivations (entertainment, surveillance, escapism, boredom and social/personal) was then calculated and given a new variable. The t-tests compared dependent and non-dependent Internet users and their level of agreement with each of the five motivations. The results indicated few differences between dependent and non-

dependents and their motivations for going online. Dependent Internet users mean response for motivations was slightly higher than non-dependent users meaning dependent Internet users are more highly motivated to go online. The motivation entertainment was significant ($p < .05$); dependent Internet users mean response 3.5 and non-dependent users mean response 3.1 out of a rating scale of one indicating strongly disagree to five indicating strongly agree. Escapism motivation was very significant ($t = 4.351$, $df = 110$, $p = .000$) with dependent Internet users average response rate of 3.4 and non-dependents 2.6. Reasons to go online for boredom was significant ($t = 2.947$, $df = 110$, $p = .004$) with dependent Internet users reporting an average score of 3.6 and non-dependents 3.0. Social/personal reasons for going online was very significant ($t = 4.119$, $df = 110$, $p = .000$) and reported dependent Internet users with a mean score of 3.4 and non-dependents 2.9. The surveillance incentive was not significant ($p > .05$). In sum, dependent Internet users rated reasons for entertainment, escapism, boredom and social/personal higher than did non-dependents.

The fifth research question asked about the differences in work productivity by Internet dependency and work status. A two-way analysis of variance revealed no significant difference for the interaction effect or the main effect for work status ($p > .05$). As reported above, a significant main effect for the dependency group was found on work productivity ($p < .001$).

The first research question in this study asked what differences are there by sex and work status between self-reported Internet dependency? Results of a two-way analysis of variance were non-significant ($p > .05$).

Discussion

Past research has revealed that people can become dependent to a number of things ranging from drugs and alcohol to gambling and television. The present study looked at people's dependency to the Internet. The American Psychiatric Association (1994) lists seven symptoms for dependency: tolerance, withdrawal, use of large amounts over longer period of time, desire to cut down, significant time spent on the activity, reduced time spent on social, occupational or recreational activities and continual use even though users know they have a problem. In the present study 66% agreed or strongly agreed that they use the Internet more now than when they first started to go online and 62% responded agreed or strongly agreed to the statement "I stay online longer than I originally intended." These results are similar to what Young (1996) found in an Internet addiction study. Young (1996) discovered those who were dependent on the Internet gradually increased their Internet use similar to how alcoholics increase their consumption of alcohol. Young's (1996) study also revealed that even non-dependent Internet users reported they lost track of time while online. Previous and current research like the present study support dependency related symptoms for the Internet including increased use of the Internet and staying engaged online longer than anticipated for.

On the other hand, 61% of the sample reported they disagreed or strongly disagreed that they are preoccupied with the Internet, think about previous online activity or anticipate their next online session; 81% said they disagreed or strongly disagreed that they made unsuccessful attempts to cut back on their Internet use; 70% said they did not lose sleep because of their Internet use; 80% said they disagreed or strongly disagreed to the statement "I have lied about the amount of time I spend online"; and 73% said they did not use the Internet to escape from

their problems. This study's findings fail to confirm what McIlwraith (1998) found in a television addiction study, that those addicted to TV use television to escape from unpleasant moods and to fight boredom. These findings also disagree with what respondents reported in other motivation questions within the survey. It was found that respondents were more likely to respond in agreement to statements regarding reasons for escapism, boredom, and entertainment for going online. Reasons, like boredom have been used to determine why people use media like the television and the present study sought to find out if there is a relationship between people's motivation for going online and their level of Internet dependency.

Uses and gratifications theory seeks to understand the uses for which people seek media to fulfill certain gratifications (Baran & Davis, 2006). In the 1940's Herta Herzog found that radio soap-opera fans used radio serials for emotional release, wishful thinking and advice (Baran & Davis, 2006; Lowery & DeFleur, 1995). The present study, like Herzog's found that people use the Internet for gratifications similar to emotional release. The present study found that people go online for escapism and social/personal reasons more than they do for entertainment and to combat boredom and found no significant motivation for people to go online to fulfill surveillance needs. The present study also revealed that dependent Internet users are more likely than non-dependents to report greater agreement for going online in categories of entertainment, escapism, boredom and social/personal than those who were labeled as non-dependent Internet users. In general, dependent Internet users were more likely to rate their reasons for going online higher than non-dependents.

For those that did report Internet dependency, strong relationships were seen between their level of dependency and work productivity. Past studies have reported that Internet use

could lead to problems in our daily lives including getting work done for school or one's job (Young, 1996; LaRose, Lin & Eastin, 2003). The present study confirmed previous findings and anecdotal suspicions that Internet dependency is more likely to negatively affect work productivity. In the current study 13% of respondents agreed or strongly agreed that their school or work performance has declined because of the Internet, 33% said they agreed or strongly agreed that the Internet distracts them from finishing tasks and 40% reported that they use the Internet to avoid doing work. A small percentage, 8% stated they missed work or school because of their online activity.

However, some scholars argue that the Internet has allowed us to get work done faster, people take more work home with them and the Internet is not hindering our work productivity (Holtz, 2001). The present study did not ask about how much more work people may get done or how much more efficient the Internet has allowed us to do work. The present study did find that respondents whose work productivity was affected by their Internet use also rated boredom, escapism and entertainment as incentive for their online activity.

The present study helps us to understand why we go online and how Internet dependency might affect our work productivity. In general dependent Internet users go online for longer than they intended, use it more often now than when they first started, and reported higher motivation levels for going online, especially in the areas of escapism and social/personal. Dependent Internet users reported greater effect on their work productivity and incentives boredom, escapism and entertainment for going online results in a higher negative effect on work productivity than motivations surveillance and social/personal. These findings only scratch the surface as to our motives for going online and the effect time spent online has on our work

productivity. Much more research can be done in this area to further our knowledge about our use of the Internet and the possible effect it has on our lives.

Limitations

The present study's findings are limited by a modest-sized convenience sample of people within the College of Liberal Arts at RIT. The study uses self-report data. Last, the study does not inquire about all documented motivations; the five most popularly used motivations were used in this study. Knowing the limitations of this study can help propel future research.

Future Research

Future research should be conducted with a larger and more varied sample size; research should be performed with a larger and more diverse sample to discover more about students and those in the working world. A probability sample could be used to find a more heterogeneous and representative sample. This study classified respondents into two groups, dependent and non-dependent based on their answers to a number of dependency related questions. Research could be done based on the actual number of hours people spend online, tracked over an extended period of time using daily time logs or software tracking systems that calculate hours spent online. The time spent online would then be used to determine dependency or compared to time spent on other activities such as work, physical activity, reading for pleasure or family time.

The present study looked at five traditional motivations: surveillance, escape, boredom, entertainment and social or personal. These motivations have been used since the start of uses and gratifications research. Future research should inquire about other areas of motivations,

perhaps those better suited for new technology: for example, meeting new people, blogging, or social networking. First, a qualitative study with focus groups or individual interviews would ask respondents describe their motivations for going online to extract possible new motivations. Further studies would then use those motivations to determine if the new motivations are related to Internet dependency and work productivity. Beyond motivations research could measure specific types of Web sites people visit, for example social networking sites versus news sites. One step further in the research should narrow down the types of Web sites and look at specific social networking sites such as Facebook, MySpace or LinkedIn. For example, motivations for using Facebook online would be reported as social or personal and motivations for using social networks like LinkedIn would be more associated with professional and work motivations. This research could provide a more in depth look at different motivations for new technology as the Internet continues to grow and evolve.

The results of the present study revealed that Internet dependency negatively effects work productivity. Experimental research might investigate how much Internet dependency affects work productivity and how. Students and workers could be monitored for an extended period of time, for example a whole semester or throughout the duration of a project for work. Their work would be monitored by software tracking devices or self-reported in a daily journal to see what types of Web sites or what time of day they typically spend online away from the task they are supposed to be completing. On the other hand people could record how many extra hours they log in for work because they have the Internet available to them around the clock. Researchers could track the number of emails from their work accounts outside of regular business hours to determine how much work is being done outside of regular work hours. One may spend time at

work emailing for pleasure, but they may also spend time at their children's dance recital emailing for work related reasons. The Internet has both enhanced our work capabilities as well as distracted us from work tasks. Future studies in this area could help us to better understand exactly when and how the Internet affects our work efficiency.

This study was designed to determine whether there are differences between people's dependency on the Internet, their motivations for Web sites visited and the effect Internet has on their work productivity. Scholars have become increasingly more concerned with peoples Internet use and how it affects our daily lives, much like they did with other mass media in the past. Considering the ever changing landscape of the Internet this pilot study will serve as a building block to better understand how and why we use the Internet and the effect it has on our lives.

References

- Employees bogging down networks. (2007). *Communication News*. 44, 6. Retrieved December 20, 2007 from ebscohost.com.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Baran, S.J., & Davis, D.K. (2006). *Mass Communication Theory* (4th ed.) Belmont, CA: Thomson Wadsworth.
- Cleveland, B. (2007). Are you focused on your work or fantasy football? *Advertising Age*. 78, 16-16. Retrieved December 13, 2007, from ebscohost.com.
- DeFleur, M.L. & Ball-Rokeach, S. (1989). *Theories of Mass Communication* (4th ed.). White Plains, NY: Longman.
- Diddi, A. & LaRose, R. (2006). Getting hooked on news: Uses and gratifications and the formation of news habit among college students in an Internet environment. *Journal of Broadcasting & Electronic Media*. 50, 193-210. Retrieved December 13, 2007, from ebscohost.com.
- Hanjin, K., Chang-Hoan, C., & Roberts, M.S. (2005). Internet uses and gratifications. *Journal of Advertising*. 34, 57-70. Retrieved October, 26, 2007 from ebscohost.com
- Holtz, S. (2001). Employees online. *Communication World*. 18, 17-23. Retrieved January 9, 2008, from ebscohost.com.
- Horvath, C.W. (2004). Measuring television addiction. *Journal of Broadcasting & Electronic Media*. 48, 378-398. Retrieved December 13, 2007, from

ebscohost.com.

- Ko, H. (2002). *A structural equation model of the uses and gratifications theory: Ritualized and instrumental internet usage*. Paper presented at the Association for Education in Journalism and Communication.
- Kubey, R.W., Lavin, M.J., & Barrows, J.R. (2001). Internet use and collegiate academic performance decrements: Early findings. *Journal of Communication*. 51, 366-382. Retrieved January 16, 2008 from mediastudies.rutgers.edu/7-kubey-366.-382.pdf.
- LaRose, R. & Eastin, M.S. (2004). A social cognitive theory of Internet uses and gratifications: Towards a new model of media attendance. *Journal of Broadcasting & Electronic Media*. 48, 358-377. Retrieved December 13, 2007, from ebscohost.com.
- LaRose, R., Lin, C.A. & Eastin, M.S. (2003). Unregulated Internet usage: Addiction, habit of deficient self-regulation? *Media Psychology*. 2250253, 225-253. Retrieved December 13, 2007, from ebscohost.com.
- Lowery, S.A. & DeFleur, M.L. (1995). *Milestones in Mass Communication Research*. White Plains, NY: Longman.
- Marlatt, G.A., Baer, J.S., Doncan, D.M., & Kivlahan, D.R. (1988). Addictive behaviors: Etiology and treatment. *Annual Review of Psychology*, 29, 223-252.
- McIlwraith, R.D. (1998). 'I'm addicted to television': The personality, imagination, and TV watching patterns of self-identifies TV addicts. *Journal of Broadcasting & Electronic Media*. 42, 371-387. Retrieved October 22, 2007, from ebscohost.com.

- Morahan-Martin, J. & Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computers in Human Behavior*. 16, 13-29. Retrieved January 31, 2008 from Elsevier.com/locate/comphumbeh
- Peters, J.D. & Simonson, P. (2004). *Mass Communication and American Social Thought*. Oxford: Rowman & Littlefield Publishers, INC.
- Ruggiero, T.E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication and Society*. 3, 3-37. Retrieved January 20, 2008 from ebscohost.com.
- Stafford, T.F. (2003). Differentiating between adopter categories in the uses and gratifications for Internet services. *IEE Transactions on Engineering Management*. 50, 4, 427-435. Retrieved January 20, 2008 from proquest.umi.com.
- Stafford, T.F., Stafford, M.R. & Schkade, L.L. (2004). Determining uses and gratifications for the Internet. *Decision Sciences*. 35, 259-288. Retrieved January 20, 2008 from proquest.umi.com.
- Vincent, R.C., & Basil, M. D. (1997). College students' news gratifications, media use, and current events knowledge. *Journal of Broadcasting & Electronic Media*. 41, 380-393. Retrieved January 31, 2008 from ebscohost.com
- Young, K.S. (1996). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology and Behavior*. 1, 237-244. Retrieved January 20, 2008 from netaddiction.com.

Appendix A: Survey

Americans on the Internet

Part I. First we would like to learn why you choose to go line. Below are a series of statements people have offered about why they go online. Indicate how much you agree or disagree with each statement beginning with “I go online...” by using the scale below. There are no right or wrong answers, it is your evaluation we are interested in learning. Please check only one response.

1-Strongly Disagree, 2- Disagree, 3-Neutral, 4- Agree, 5- Strong Agree

1. because it amuses me
2. to understand the world
3. to help me to relax
4. when I have nothing better to do
5. so I can talk with other people about what's covered
6. because it's a good thing to do when I am alone
7. because it is entertaining
8. because I wonder what other people are doing
9. because it helps me satisfy my curiosity
10. to help me get away from everyday worries
11. to interact with friends
12. to find out things I need to know about daily life

13. because it is thrilling
14. to help me take my mind off things
15. just because it's there
16. to keep up with what is going on
17. because it makes me want to learn more about things
18. when there's no one else to talk to or be with
19. because it's enjoyable
20. to see what society is like nowadays
21. to meet people with similar interest
22. when I want to be cheered up
23. to help me judge what political leaders are really like
24. because it helps me forget about school/homework
25. because it passes the time, especially when I'm bored
26. because it's exciting
27. to express myself freely
28. so I can keep up with what the government is doing

Part II. You are more than half way done!

Next we are interested in learning about your leisure use of the Internet; that is, the time you spend online not related to school or your job. Please let us know how much you agree or disagree with the following scale below. Please check only one response.

1- Strongly Disagree, 2- Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree

29. I feel preoccupied with the Internet (think about previous online activity or anticipate next online session)
30. My school** performance has not deteriorated because of time spent online*
31. I use the Internet today no more than I did when I first started going online*
32. I have repeatedly made unsuccessful attempts to control or cut back my Internet use
33. I spend time online to avoid doing school** related responsibilities
34. I am just as happy when I do not have access to the Internet*
35. I have gotten into trouble at school** because of being online
36. I stay online longer than I originally intended
37. I have not missed school** because of online activities*
38. The time I spend online doesn't cause me to lose sleep*
39. The Internet distracts me from finishing tasks for school**
40. I have lied about the amount of time I spend online
41. I use the Internet to escape from problems

Part III. Lastly, please answer a few questions about yourself

42. What was your age on your last birthday? ____ years
43. What is your gender? (Check one response) ____M ____F
44. Are you currently (Check one response):

A full-time student at RIT ____

A full-time employee at RIT ____

Neither ____

* Indicates statement is reverse scored

** Exchange “school” for “work” when sending to sample of full-time employees

Appendix B: Email Cover Letter to Students

Americans are spending more and more time online these days and you are one of a small group of students whose thoughts we would like on such a topic.

This study is vital to the growing body of knowledge about the Internet and it is important to the results of this study and future research that you click on the link below and complete the electronic survey the link directs you to.

<http://clipboard.rit.edu/takeSurvey.cfm?id=58562h>

Your participation in completing the survey is voluntary and pretests show that it takes fewer than five minutes to complete. There is no penalty if you choose not to participate or decide to stop at any time. Benefits to filling out this survey include adding to the growing body of information about the Internet and its effects on our lives and there are little to no potential risks in filling out this survey. You can be assured complete confidentiality; your name will never be linked to the survey that you complete.

If you would like to receive a summary of the results please send an email to mlh8448@rit.edu with the subject line “results requested.” If you have questions, I am happy to answer them. Please send an email to the above mentioned email address.

Thank you in advance for your time and assistance.

Sincerely,

Megan Hilts

Appendix C: Email Cover Letter to Employees

Americans are spending more and more time online these days and you are one of a small group of professionals whose thoughts we would like on such a topic.

This study is vital to the growing body of knowledge about the Internet and it is important to the results of this study and future research that you click on the link below and complete the electronic survey the link directs you to.

<http://clipboard.rit.edu/takeSurvey.cfm?id=58863f>

Your participation in completing the survey is voluntary and pretests show that it takes fewer than five minutes to complete. There is no penalty if you choose not to participate or decide to stop at any time. Benefits to filling out this survey include adding to the growing body of information about the Internet and its effects on our lives and there are little to no potential risks in filling out this survey. You can be assured complete confidentiality; your name will never be linked to the survey that you complete.

If you would like to receive a summary of the results please send an email to mlh8448@rit.edu with the subject line “results requested.” If you have questions, I am happy to answer them. Please send an email to the above mentioned email address.

Thank you in advance for your time and assistance.

Sincerely,

Megan Hilts