

AN EXAMINATION OF SOCIAL MEDIA TECHNOLOGY AND ITS IMPACT ON
THE PURSUIT AND ALLOCATION OF PERSONAL LEISURE TIME

A Senior Project

presented to

the Faculty of the Recreation, Parks, & Tourism Administration Department

California Polytechnic State University, San Luis Obispo

In Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science

by

Kelsey A. O'Lea

March, 2011

© 2011 Kelsey O'Lea

ABSTRACT

AN EXAMINATION OF SOCIAL MEDIA TECHNOLOGY AND ITS IMPACT ON THE PURSUIT AND ALLOCATION OF PERSONAL LEISURE TIME

KELSEY A. O'LEA

MARCH, 2011

The emergence of Internet has created a seemingly endless portal for leisure activity and participation; since the establishment of social media technology, leisure time spent online has been on the rise. The purpose of this study was to examine how social media technology has impacted the way people allocate and pursue their personal leisure time. This researcher of this study distributed an online questionnaire to current undergraduate students at Cal Poly San Luis Obispo through convenience sampling methods. The questionnaire was comprised of three sections: SNS usage, smart phone usage, and the impact of that usage on specific areas of the subjects' daily life. Correlations exist between the average amount of time spent on SNS and the impact on users' ability to complete a task. Future research needs to be conducted to assess necessary measures needed to prevent the risks associated with social media technology use.

Keywords: social media technology, net addiction, social networking sites, smart phones, college undergraduate students

TABLE OF CONTENTS

	PAGE
ABSTRACT.....	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES.....	iii
CHAPTER 1. INTRODUCTION AND REVIEW OF LITERATURE.....	1
Background of the Study.....	1
Review of Literature.....	2
Leisure trends associated with technology.....	2
Psychological factors involved in leisure time allocation.....	5
Summary.....	7
Purpose of the Study.....	8
Research Questions.....	8
Delimitations.....	8
Limitations.....	9
Assumptions.....	9
Definition of Terms.....	10
CHAPTER 2. METHODS AND PROCEDURES.....	11
Description of Subjects.....	11
Description of Instrument.....	11
Description of Procedures.....	12
Method of Data Analysis.....	13

CHAPTER 3. PRESENTATION OF THE RESULTS	15
Demographics	15
Students’ Use of Social Networking Sites (SNS).....	16
Students’ Use of Smart Phones.....	17
Impact of Social Media Technology.....	19
Summary.....	22
CHAPTER 4. DISCUSSION AND CONCLUSIONS	23
Summary.....	23
Discussion.....	24
Conclusions.....	27
Recommendations.....	28
REFERENCES	30
APPENDIXES	32
APPENDIX A. Questionnaire	33
APPENDIX B. Informed Consent Letter	37

LIST OF TABLES

TABLE	PAGE
TABLE 1. Respondents' Demographics by College According to Frequency and Percentage.....	16
TABLE 2. Social Networking Site Usage According to Frequency and Percentage.....	17
TABLE 3. Smart Phone Application Usage According to Frequency and Percentage.....	18
TABLE 4. Average Time (in Hours) Spent Using Smart Phone Applications According to Mean Score and Standard Deviation.....	18
TABLE 5. Social Media Technology's Impact on Ability to Complete Tasks According to Frequency and Percentage.....	19
TABLE 6. Level of Agreement with Impact of Social Media Technology According to Mean Score and Standard Deviation.....	20
TABLE 7. Time Spent in Virtual Versus Physical Social Settings According to Frequency and Percentage.....	20
TABLE 8. Relationship Between Time Spent On Smart Phone Applications and Impact on Ability to Complete a Task According to Correlation Coefficients.....	22

Chapter 1

INTRODUCTION AND REVIEW OF LITERATURE

Background of the Study

Historically, changes in leisure patterns have been closely tied to technological advances. According to Rojek, the inventions of television, film, and radio have dramatically enhanced “our sense of interdependence and our access to information and entertainment” (as cited in Bryce, 2001, p. 2). Furthermore, the emergence of the Internet has created a seemingly endless portal for leisure activity and participation. With the more recent conception of social media outlets such as Facebook and Second Life and the invention of smart phones like the iPhone and Blackberry, leisure time spent online seems to be steadily increasing. Joinson (2008) discovered that social networking websites made up five of the top fifteen most visited sites in July 2007. During that same month, Facebook signed up its 30 millionth user and reportedly expected an 89% user increase each consecutive year thereafter (Joinson).

With social media technology on the rise, it is important to understand how it impacts and influences personal leisure time. Bryce (2001) claims, “The Internet provides multiple leisure spaces that support a variety of leisure activities, suggesting changes in the interactional, spatial, and temporal experience of leisure” (p. 9). These changes in leisure experience directly impact the field of recreation, parks, and tourism administration. In this day and age, technological advancement seems to be a daily occurrence, as is technological integration into everyday lives. Leisure professionals must understand these new technologies and the implications they have on physical and

psychological well-being (Bryce). Professionals will be more likely to understand and predict leisure trends if they are knowledgeable about the technology. The purpose of this study was to examine how social media technology has impacted the way people allocate and pursue their personal leisure time.

Review of Literature

Research for this review of literature was conducted at Robert E. Kennedy Library on the campus of California Polytechnic State University, San Luis Obispo. In addition to books and other resources, the following online databases were utilized: Academic Search Elite, Expanded Academic ASAP, CAB Direct, Google Scholar, and PsycINFO. This review of literature is organized into the following topic areas: leisure trends associated with technology, and psychological factors involved in leisure time allocation.

Leisure trends associated with technology. While the development of television, film, and radio opened new doors for technology as a form of leisure, the invention of the Internet created a dichotomy in trends. Bryce (2001) notes that traditional notions of leisure experience (e.g., sports, socializing, and film) now coincided with the new idea of technologically-based leisure (e.g., computer gaming and surfing the web). Given the technological history, the literature in this section seeks to shed light on the evolution of leisure toward the contemporary model, and its technological progression toward social media portals.

Contemporary leisure experiences are driven by a mixture of both traditional and technological notions; people now have the capability to play sports and socialize in a

virtual portal. Provided that leisure activities “provide relaxation, stimulation, escape, social interaction, and the development of self-identity and lifestyle,” technologically-based experiences achieve the same utility as traditional ones (Bryce, 2001, p. 4). Based on personal experience, the most frequently used technological leisure portals seem to include: the Internet (e.g., email, search engines, and social networking sites [SNS]), instant streaming video servers (e.g., YouTube, Netflix, and Hulu), instant messaging services (e.g., AOL’s IM, Skype, and Google’s Gmail G-Chat), smart phones (e.g., iPhone and Blackberry), and gaming systems (e.g., PlayStation, Xbox, and Wii). In analyzing use of the Internet for leisure, two very different types of users emerge. The first type of user is a passive one; this person is a “web surfer” who—much like a television “channel surfer”—casually logs on to the Internet to check a website or blog posting. On the other hand, an active user is one who is involved in more elaborate online activities, such as creating and maintaining a webpage (Jackson, 1999). Jackson states that active users devote a longer amount of solitary time and energy to their online activities; this “serious” usage can raise red flags with regards to social norms. The increasingly prominent use of SNS is one area of particular concern relating to social context.

Joinson (2008) claims that SNS like Facebook can provide “social and emotional support, information resources, and ties to other people” offline (p. 1). In other words, these sites can supply people with a means of social capital. However, despite opportunities to contact people worldwide, increased time spent online can negatively affect personal relationships with friends or family members. Jackson (1999) cites that “countless stories have been recounted in the media of marriages that have broken up

because one spouse was spending inordinate amounts of time on the Internet forming new attachments” (p. 6). According to Sanders, “The convenience and accessibility of modern technology contributes greatly to the ‘privatizing’ of leisure... Technology makes it easier to get what we want, when we want it, while remaining entirely alone” (as cited in Gandossy, 2007, p. 1). Joinson (2008) concludes that—based on research that was conducted on over 2,000 students—there are two types of social network usage: “social searching” and “social browsing.” “Social searching” is done with the intent of simply finding out more about a person (who was initially met offline) based on their online profile. “Social browsing” is done with the intent of developing new connections and pursuing them offline. Based on the aforementioned survey, results concluded that the majority of students partake in “social searching.” Most of the students reported using Facebook to keep in touch, participate in social surveillance (virtual people-watching), and reacquire lost contacts (Joinson). However, when casual social searching leads to “net addiction” and the neglect of human relationships, it becomes a cause for concern.

One particular SNS, Second Life, is raising red flags for some. Second Life is a virtual world in which users create an avatar and proceed to build a virtual life; users can socialize with other avatars, trade virtual products, and travel around the virtual world. In the May 2008 episode of MTV’s *True Life: I Live Another Life on the Web*, a young aspiring musician, Keiko Takamura, led a successful career in the spotlight through Second Life. However, she lacked the self-confidence to perform outside of the virtual realm and, consequently, missed out on countless opportunities to pursue her passion (Sirulnick & Stieglitz, 2008). Some Second Life users, like Keiko, are getting so caught

up in their virtual world that they lose sight of their “self concepts, sense of mastery or self-efficacy over their lives, and perceptions of their abilities in relation to both technologies and college life” (Cotten, 2008, p. 2).

Just as the invention of the Internet created a dichotomy between traditional and technological leisure trends, the creation of SNS has created a dichotomy in technological leisure users. Users are divided into passive and active users, and social searchers and browsers; depending upon the amount of time invested and the energy exerted, users risk spiraling into “net addiction” and social neglect. In order to prevent these risks and maintain control of social media use, it is important to analyze the psychological factors that are involved in leisure time allocation.

Psychological factors involved in leisure time allocation. When faced with stressful life circumstances, leisure participation has been recognized as an effective coping tool (Coleman & Iso-Ahola, 2001). Yet, as psychologically beneficial as it is for individuals to participate in leisure activities, it is equally beneficial for professionals to understand the psychology behind participation. Despite the evolution of leisure and its technological progression toward social media outlets (SNS and smart phones), theories on user motives in leisure participation remains fairly constant. It is the participants’ usage of leisure outlets that is ever-changing; this usage is an important factor in understanding industry trends. The literature in this section analyzes participant motives and how they influence use of social media portals.

Numerous theories exist with relation to user motives in leisure participation; however, one theory in particular is the most applicable and all-encompassing for social media technology leisure users. Bumgarner (2007) outlines how the uses and

gratifications (UG) theory “attempts to explain how people use the media to gratify their wants and needs, what motivates their behavior and what are the consequences of their uses of media” (p. 3). People use the media to satisfy four primary needs: diversion, personal relationships, personal identity, and surveillance needs. McQuail describes these needs in further detail:

Diversion needs involve a need to escape or a need for emotional release.

Personal relationship needs are motives to connect to others. Personal identity needs include use of the media to help people form, adjust and understand their own identity. Finally, surveillance needs inspire use of the media for information and understanding of the audience’s environment. (as cited in Bumgarner, 2007, p. 4)

Along with these four primary needs, the concept of social networking is deeply engrained in the human psyche. Social networks actually subsisted long before the Internet; these networks “exist because humans are societal and require relationships with other humans in order to survive” (Coyle & Vaughn, 2008, p. 1). Joinson’s (2008) aforementioned study on Facebook users demonstrated that a majority of SNS users are “social searchers,” or participants seeking to keep in touch with friends (personal relationship needs) and partake in social surveillance (surveillance needs). As more “social searchers” are finding gratification in SNS, leisure professionals and product marketers are becoming increasingly intrigued by and interested in these virtual communities. Professionals are seeking to gain a better understanding of the role of social influence on these community members (Dholakia, Bagozzi, & Pearo, 2003).

Similarly, Gangadharbatla (2008) deduces that there are four factors that influence adoption of SNS technologies: Internet self-efficacy, need for cognition, need to belong, and collective self-esteem (p. 2). These factors also support the UG theory in suggesting why people use social media technology. In a 2004 study in Australia, it was deduced that 89% of adolescents were mobile phone users; primary usage was among women (Foley, Holzman, & Wearing, 2007). It was also discovered that mobile phones act as a sort of “fashion accessory” for women; they become a source of identity and self-worth, and, in turn, reliance. Furthermore, this “growing ‘younger mobile generation’ regards the mobile phone as the center of their social universe ... [and] the embodiment of self-expression” (Foley et al., p. 4). With smart phones, in particular, the virtual social realm really has become endless. People now have the capability to access their social networks in the palm of their hand. From texting and calling to emailing and browsing the Internet to Twitter and Facebook applications, it is no wonder that smart phones are “the center of [adolescents’] social universe” (Foley et al., p. 4).

Summary. Since the invention of the Internet, contemporary leisure trends have become increasingly technologically based; participants now have the capability to combine traditional and technological notions of recreation in a virtual portal. With the contemporary technological-leisure model came two different types of users: passive and active (who further divide into social searchers and browsers on SNS); additionally, issues such as net addiction and social neglect became a cause for concern among more active users. Industry professionals need to understand the user motives for partaking in social media technology in order to prevent the aforementioned risks; motives fall under the uses and gratifications theory (diversion, personal relationships, personal identity, and

surveillance needs). Given the literature provided, there are voids with regards to preventing the risks associated with social media technology use. This study attempts to present a better understanding of the risks and their implications.

Purpose of the Study

The purpose of this study was to examine how social media technology has impacted the way people allocate and pursue their personal leisure time.

Research Questions

This study attempted to answer the following research questions:

1. What factors determine if people choose to utilize social media technology to pursue their leisure time?
2. Has the introduction of smart phones increased the amount of time spent utilizing social media technology?
3. Is there a relationship between social media technology and a decrease in physical social capital?

Delimitations

This study was delimited to the following parameters:

1. Information on social media technology and leisure was gathered from students at Cal Poly, San Luis Obispo.
2. Smart phone and social media network usage were analyzed.
3. The data were collected during the winter of 2011.
4. Information for this study was gathered using an online survey method.

Limitations

This study was limited by the following factors:

1. The instrument used in this study was not tested for validity and reliability.
2. Convenience sampling methods were utilized and thus limited the ability to generalize the findings.
3. The relationship of the subjects to the researcher could have influenced data collection.
4. Social desirability bias could have influenced subjects in their responses.

Assumptions

This study was based on the following assumptions:

1. It was assumed that subjects would respond honestly and to the best of their knowledge.
2. It was assumed that the email addresses utilized belonged to the intended recipients.
3. It was assumed that the Facebook friends invited to participate in the survey were current undergraduate students.

Definition of Terms

The following terms are defined as used in this study:

Leisure. any activity that provides relaxation, stimulation, escape, social interaction, and the development of self-identity and lifestyle (Bryce, 2001)

Net addiction. the outcome of excessive internet usage; when the time spent in virtual social settings outweighs that spent in physical social settings (Joinson, 2008)

Social capital. i.e., physical or human capital; the personal benefits that social networks can provide an individual (Joinson)

Social media technology. i.e. social media outlets; an online social networking site (SNS) and/or smart phone with active internet capability

Social networks. groups of individuals tied together by a type of interdependency, such as a friendship or romantic relationship (Coyle & Vaughn, 2008)

Chapter 2

METHODS AND PROCEDURES

The purpose of this study was to examine how social media technology has impacted the way people allocate and pursue their personal leisure time. This chapter on the study's methods and procedures is organized in the following manner: description of the subjects, description of the instrument, description of the procedures, and the method of data analysis.

Description of Subjects

Current undergraduate students attending California Polytechnic State University, San Luis Obispo were the subjects of this study. The subjects were derived from all class levels, ranging from freshmen (first-year students) to “super-seniors” (sixth or seventh-year students). They were primarily between the ages of 18 and 26. Of the 18,000 undergraduate students enrolled at Cal Poly, a sample size of 171 students was studied. These subjects were selected because college-aged students are the most common users of social media technology (based upon research performed in the review of literature). They were selected using convenience sampling methods.

Description of Instrument

The instrument was an online questionnaire created by the researcher, and it measured Cal Poly students' use of social media technology with twelve questions. The surveys were administered via the electronic survey program, Zoomerang. The

instrument was formatted with four distinct sections. The first section sought to evaluate student's use of social networking sites—whether or not they had an online profile, which sites they used, and how much time per day they spent on SNS. The second section sought to evaluate students' use of smart phones with active internet capability—whether or not they had one, which applications they used most frequently, and how much time per day they spent on those applications. The third section sought to determine if students experienced net addiction and loss of human social capital as a result of these technologies. The fourth section outlined demographics—age, gender, and current major in school. All of the sections were formatted with close-ended questions. The instruments were pilot-tested by ten students during Fall Quarter 2010. These individuals were used because they fit the demographics for the target subjects.

An informed consent letter to participate in the study was included with the instrument. For a copy of the questionnaire, see Appendix A. For a copy of the informed consent letter, see Appendix B. The letter of informed consent was incorporated into the message for Facebook friends and attached as a file for the mass email group. The consent form informed the subjects of the background of the study, how long the questionnaire would take to complete, and an assurance of privacy and anonymity. Both the instrument and the informed consent were reviewed and approved by Cal Poly's Human Subjects Review Committee.

Description of Procedures

This study was conducted utilizing online questionnaires created through the electronic survey program, Zoomerang. They were distributed via mass email to all

current Recreation, Parks, and Tourism Administration students and via Facebook to all currently enrolled Cal Poly friends on January 26, 2011. The researcher sent Dr. Jeff Jacobs an email with a link to the online questionnaire and an attached Informed Consent Letter on January 24, 2011; Jacobs then proceeded to forward the email to the approximately 300 current undergraduate RPTA students. On January 26, 2011, the researcher created a Facebook event titled, "RPTA Senior Project Survey." The event description detailed the purpose of the study as well as a notice to contact the researcher for a copy of the informed consent; a link to the online questionnaire was provided below the description. The Facebook event remained active until February 9, 2011. One week after the initial email and event message, subjects were sent a follow-up reminder to participate in the survey if they had not already done so.

Method of Data Analysis

Data were collected using the electronic survey program, Zoomerang; these data were then converted to and analyzed in Microsoft Excel. To answer the research question pertaining to the factors determining social media technology use, several questions were utilized. Limited demographic variables (e.g. gender, age, current major), networking site preferences, and smart phone application preferences were collected and then analyzed using frequency and percentage. Likewise, to answer the research question pertaining to smart phones' impact on social media technology use, data on the average amount of time spent on both SNS and smart phones, and the subsequent influence on task completion, were collected and analyzed using frequency and percentage as well as measures of central tendency (e.g., mean, standard deviation). To answer the research

question pertaining to social media technology and physical social capital, Likert scale data were collected and analyzed using frequency and percentage. Likert scale data were also collected for the question pertaining to respondents' level of agreement with the impact of social media technology. With the five-point Likert scale for level of agreement, mean scores of 3.0 or above were determined to indicate that social media technology usage does have an impact. Correlation tests were conducted to determine if correlations existed between time spent on smart phone applications and the impact on one's ability to complete a task.

Chapter 3

PRESENTATION OF THE RESULTS

The purpose of this study was to examine how social media technology has impacted the way people allocate and pursue their personal leisure time. The data were collected through an online questionnaire distributed via email and Facebook between January 26 and February 5, 2011. A sample of 171 online questionnaires were collected and analyzed.

Demographics

Of the 171 subjects, a predominant number were female (n=135, 78.95%), while less than a quarter of the respondents were males (n=36, 21.05%). The youngest respondent was 18 years of age and the oldest respondent was 35 years of age. The average age was 21.25 years. Of the 168 subjects who responded with their college major, the majority were Recreation, Parks, and Tourism Administration students (n=108, 64.29%). Students from other majors within the College of Agriculture, Food, and Environmental Sciences were the next largest category of respondents, followed by students within the College of Liberal Arts (see Table 1).

Table 1
Respondents' Demographics by College According to Frequency and Percentage

<u>Site</u>	<i>f</i>	<i>%</i>
College of Agriculture, Food, and Environmental Sciences	123	71.93
College of Liberal Arts	15	8.93
College of Engineering	12	7.14
Orfalea College of Business	7	4.17
College of Architecture and Environmental Design	6	3.57
College of Science and Mathematics	4	2.38

Note. Due to rounding of numbers, percentages are less than 100%.

Students' Use of Social Networking Sites (SNS)

Subjects were asked to identify whether or not they had a profile set up on a social networking site. If they responded, "yes," they were asked to identify on which sites they had established profiles and, on average, how much time they spent on the identified sites per day. With the exception of two of the 171 respondents, all subjects had a profile set up on a social networking site (n=169, 98.83%). Facebook was the most frequently used site, while Second Life was the least frequently used site (see Table 2).

Table 2
Social Networking Site Usage According to Frequency and Percentage

Site	<i>f</i>	%
Facebook	169	100.00
Linked In	50	29.59
Twitter	29	17.16
MySpace	16	9.47
Tumblr	2	1.18
Second Life	0	0.00

Note. Due to multiple-selection methods, percentages do not total 100%.

Based on subjects' response to their social networking site usage, they were asked to identify the amount of time they spend on SNS per day. The average amount of time spent on SNS per day was 1.49 hours; the standard deviation was 1.206. The maximum amount of time per day spent on SNS was 5.5 hours.

Students' Use of Smart Phones

Subjects were asked to identify whether or not they had a smart phone with active internet capability. If they responded, "yes," they were asked to identify which applications they used most frequently and, on average, how much time they spent on the identified applications per day. Of the 168 respondents for this segment of the questionnaire, more had smart phones (n=88, 52.38%) than not (n=80, 47.62%). The most frequently used application by smart phone users was email, while the least frequently used application was video. The category, "other," is defined as online banking, FML, and messaging/BBM applications (see Table 3).

Table 3
Smart Phone Application Usage According to Frequency and Percentage

<u>Application</u>	<u>f</u>	<u>%</u>
Email	79	47.02
Internet Browser	60	35.71
Social Networking Sites (SNS)	52	30.95
Games	15	8.93
Video	6	3.57
Texting	6	3.57
GPS/Maps	3	1.79
Other	4	2.39

Note. Due to multiple-selection methods, percentages do not total 100%.

Based on subjects' response to their smart phone application usage, they were asked to identify the amount of time they spend on specific applications per day. Most respondent time was spent on social networking and email applications, while the least amount of respondent time was spent on video (see Table 4).

Table 4
Average Time (in Hours) Spent Using Smart Phone Applications According to Mean Score and Standard Deviation

<u>Application</u>	<u>Mean</u>	<u>SD</u>
Email	0.62	1.35
Social Networking Sites (SNS)	0.56	0.92
Internet Browser	0.37	0.52
Games	0.26	1.32
Video	0.06	0.25
Other	0.28	1.38

Impact of Social Media Technology

Subjects were asked to identify the impact that social media technology has on their daily lives. Most of the subjects stated that they agreed that their social media technology use inhibits their ability to complete a task (see Table 5).

Table 5
Social Media Technology's Impact on Ability to Complete Tasks According to Frequency and Percentage

<u>Level of Agreement</u>	<i>f</i>	<i>%</i>
Completely Disagree	11	6.71
Disagree	38	23.17
Neither Disagree nor Agree	35	21.34
Agree	75	45.73
Completely Agree	5	3.05

Subjects were asked to indicate their level of agreement regarding the impact of their social media technology use on the following areas: ability to meet new people online, ability to meet new people in-person, ability to complete assignments on time, motivation to exercise, adequate sleep, and focus at work. On a Likert scale of 1-5, "1" indicated complete disagreement (usage doesn't impact) and "5" indicated complete agreement (usage does impact). On average, agreement was highest with the impact on ability to complete assignments on time, while agreement was lowest with impact on motivation to exercise (see Table 6).

Table 6
Level of Agreement with Impact of Social Media Technology According to Mean Score and Standard Deviation

Impacted Areas	Mean	SD
Ability to complete assignments on time	3.12	1.11
Ability to meet new people online	3.11	1.15
Focus at work	2.93	1.21
Adequate sleep	2.79	1.22
Ability to meet new people in-person	2.65	1.13
Motivation to exercise	2.61	1.15
Overall Mean	2.87	1.16

Subjects were asked to indicate whether they spend more time in a virtual or physical social setting. A majority of the participants responded that they spend their time in a mostly physical social setting (see Table 7).

Table 7
Time Spent in Virtual Versus Physical Social Settings According to Frequency and Percentage

Social Setting	<i>f</i>	%
Entirely Virtual	1	0.59
Mostly Virtual	2	1.18
Equally Virtual and Physical	17	10.06
Mostly Physical	137	81.07
Entirely Physical	12	7.10

Correlation coefficient tests were conducted to determine if a relationship existed between time spent on smart phone applications and the subsequent impact on users' ability to complete a task. Data from Table 3 were utilized to represent the amount of time spent on smart phone applications, while data from Table 5 were utilized as a factor of the impact on users' ability to complete a task. Each level of agreement with the impact on task completion was represented by a numeral from one to five. The value labels were as follows:

1. Completely disagree (usage doesn't inhibit)
2. Disagree
3. Neither disagree nor agree
4. Agree
5. Completely agree (usage does inhibit)

Based on the correlation coefficients, a slight positive correlation was found between time spent on SNS applications on smart phones and the impact on users' ability to complete a task. The more time users spend on SNS applications, the more likely they are to feel an impact on their ability to complete a task. On the other hand, time spent on video applications had a slight negative correlation (see Table 8).

Table 8
Relationship Between Time Spent on Smart Phone Applications and Impact on Ability to Complete a Task According to Correlation Coefficients

	Impact on Task Completion
<u>Application</u>	<u>Correlation Coefficient</u>
Social Networking Sites (SNS)	0.26
Email	0.05
Games	0.01
Internet Browser	0.01
Video	-0.11
Other	0.09

Summary

The results presented in this chapter indicate that a majority of social media technology users find a balance between physical and virtual social capital. However, many of them find that their social media technology usage has an impact on their ability to complete a task or assignment. A detailed summary and a discussion of the findings will follow in Chapter 4.

Chapter 4

DISCUSSION AND CONCLUSIONS

The research conducted by this study has helped to identify some of the issues associated with social media technology as it relates to personal leisure time. This concluding chapter will include the following: summary of the study, a discussion of the findings including limitations, conclusions based on research questions, and recommendations for future research.

Summary

The purpose of this study was to examine how social media technology has impacted the way people allocate and pursue their personal leisure time. Since the invention of the Internet, leisure activities have steadily evolved into the virtual realm. Furthermore, SNS and smart phones have revolutionized the way people interact with one another. Contemporary trends have progressed towards the privatization of leisure, as it is easier to entertain oneself alone in the comfort of one's own home. Consequently, red flags have been raised with regards to the amount of time spent in a virtual social setting.

The research for this study was conducted via online questionnaires administered by the electronic survey program, Zoomerang. Surveys and informed consent forms were sent via email to all Recreation, Parks, and Tourism Administration students, and via a Facebook event to the researcher's current undergraduate "friends" at Cal Poly. The data were collected during January 2011 from 171 subjects.

The results of the collected data indicated that a majority of undergraduate students have a profile established on a SNS, with Facebook being the most commonly used site. On average, users spent more than an hour on SNS each day. However, most social media technology users claimed to have found a balance between physical and virtual social capital. Even so, many of them recognized that their social media technology usage has had an impact on their ability to complete a task or assignment.

Discussion

On a demographic level, most social media technology users in this study appeared to be female, around the age of 21, and were studying a major within the College of Agriculture, Food, and Environmental Sciences. Nearly all of the subjects had a profile established on a SNS. Facebook was the most popular, followed by Linked In, Twitter, and MySpace. A majority of users spent between one and two hours per day on SNS. The most extensive users spent five and a half hours per day on SNS. As for smart phone usage, more than half of the subjects indicated that they had a smart phone with active internet capability. The most frequently used applications were email, internet browsers, SNS, and games. On average, users logged onto each of these applications for less than an hour each day. The least frequently used applications were video, mapping, and messaging. On average, users logged onto each of these applications less than daily. Very few users logged onto any of these applications for more than two hours each day. Nearly half of the social media technology users in this study indicated that they agree that their social media technology usage impacts their ability to complete a task. Furthermore, in indicating which areas were most affected by social media technology

usage, agreement was highest with the impact on ability to complete assignments on time and the impact on ability to meet new people online. Agreement was lowest with the impact on motivation to exercise. In terms of finding a balance between physical and virtual social capital, most users indicated that they spend a majority of their time in physical social settings. Only three users signified that they spend a majority of their time in “mostly” or “entirely” virtual social settings.

Previous research has suggested that Internet users are divided into two categories based on purpose and time spent online: passive and active (Jackson, 1999). Assuming that passive users spend less than an hour online each day—while active users spend more than an hour—a majority of this study’s subjects are active users. Based on the premise that net addiction can occur in active users that spend more time online than they do in a physical social setting, very few subjects are considered to be at risk for net addiction. However, another sign of net addiction is the inability to effectively complete one’s daily tasks and duties due to overactive Internet use. Subsequently, a majority of subjects indicated that their SNS use impacts their ability to complete tasks, suggesting a form of net addiction in most SNS users. Gangadharbatla (2008) suggested four factors influencing SNS adoption: Internet self-efficacy, need for cognition, need to belong, and collective self-esteem (p. 2). Considering all but one subject of this study had a SNS profile, it can be deduced that these four factors are prevalent in college-age users. Furthermore, subjects indicated that their social media technology usage impacted their ability to meet new people online, suggesting a need to belong and for collective self-esteem.

The limitations of this study did have an impact on the results. Given that the instrument was not previously tested for validity and reliability, results could have been skewed. Since the researcher utilized convenience sampling methods, the ability to generalize the findings was limited. Furthermore, the relationship of the respondents to the researcher had a significant impact on the generalization of the findings. As most of the subjects were Recreation, Parks, and Tourism Administration students, the impact of college major on social media technology use may not be a reliable variable in this study. As the issue of net addiction and physical versus virtual social capital can be a sensitive issue, social desirability bias could have affected subjects' responses. The actual amount of time spent online could be significantly more than respondents indicated, thus skewing the results.

Given the results of this study, it can be deduced that social media technology is very influential on personal leisure time allocation. SNS usage is prominent among college-age subjects; most users spend an hour or more on their profiles each day. Likewise, the 52.38% of subjects who own a smart phone with active internet capability primarily utilize the email, Internet browser, SNS, and gaming applications on a regular basis. This supports existing research that "the Internet provides multiple leisure spaces that support a variety of leisure activities, suggesting changes in the interactional, spatial, and temporal experience of leisure" (Bryce, 2001, p. 9). Increasingly, people are turning to social media technology as a tool for occupying leisure time and fulfilling social capital needs. This study has helped to shed light on the impact of social media technology—social networking sites, in particular—among college-age subjects. Notably, the average amount of time spent on SNS is cause for concern with regards to risk of net

addiction; SNS usage has a definite impact on users' ability to complete tasks. Particular attention needs to be paid to leisure time spent on SNS; while users are currently finding a balance between physical and virtual social capital, an increase in time spent online could negatively impact physical social capital. This could lead to unhealthy changes in lifestyle, self-esteem, and cognition much like the subjects of MTV's *True Life: I Live Another Life on the Web* (May 2008). While this study has helped to define the correlations between social media technology and impacts on task completion, future studies need to be conducted to better understand the necessary measures needed to prevent the risks associated with social media technology use.

Conclusions

Based on the findings of this study, the following conclusions are drawn:

1. Age, gender, and college major could be determining factors in whether people choose to utilize social media technology to pursue their leisure time.
2. Average smart phone usage indicates that there is a slight positive correlation between time spent on applications and an impact on users' ability to complete a task.
3. For most users, there does not appear to be a significant relationship between social media technology use and a decrease in physical social capital.

Recommendations

Based on the conclusions of this study, the following recommendations are made:

1. A campaign could be launched to encourage SNS users to limit their daily time online.
2. Future research should examine differences between college majors associated with this population.
3. Future research should examine specific user motivations for utilizing social media technology.
4. Future research should limit convenience sampling methods.
5. A larger sample size could allow for a more detailed study.

REFERENCES

REFERENCES

- Bryce, J. (2001). The technological transformation of leisure. *Social Science Computer Review*, 19(1), 7-16. Retrieved from <http://ssc.sagepub.com>
- Bumgarner, B. A. (2007). You have been poked: Exploring the uses and gratifications of Facebook among emerging adults. *First Monday*, 12(11), 3-4. Retrieved from <http://firstmonday.org>
- Coleman, D., & Iso-Ahola, S. E. (2001). Leisure and health: The role of social support and self-determination. *Journal of Leisure Research*, 25(2), 111-128. Retrieved from <http://www.nrpa.org/jlr>
- Cotten, S. R. (2008). Students' technology use and the impacts on well-being. *New Directions for Student Services*, 124, 55-70. doi: 10.1002/ss.295
- Coyle, C. L., & Vaughn, H. (2008). Social networking: Communication revolution or evolution? *Bell Labs Technical Journal*, 13(2), 13-18. doi: 10.1002/bltj.20298
- Dholakia, U. M., Bagozzi, R. P., & Pearo, L. K. (2003). A social influence model of consumer participation in network and small group-based virtual communities. *International Journal of Research in Marketing*, 21(2004), 241-263. doi: 10.1016/j.ijresmar.2003.12.004
- Foley, C., Holzman, C., & Wearing, S. (2007). Moving beyond conspicuous leisure consumption: Adolescent women, mobile phones, and public space. *Leisure Studies*, 26(2), 179-192. doi: 10.1080/02614360500418555
- Gandossy, T. (2007, March 29). Technology transforming the leisure world. *CNN*. Retrieved from <http://www.cnn.com>
- Gangadharbatla, H. (2008). Facebook me: Collective self-esteem, need to belong, and internet self-efficacy as predictors of the iGeneration's attitudes toward social networking sites. *Journal of Interactive Advertising*, 8(2), 5-15. Retrieved from <http://jiad.org>
- Jackson, E. L. (1999). Leisure and the Internet. *JOPERD: The Journal of Physical Education, Recreation, & Dance*, 70(9), 18. Retrieved from <http://www.aahperd.org/publications/journals/joperd>
- Joinson, A. N. (2008). 'Looking at', 'looking up' or 'keeping up with' people? Motives and uses of Facebook. *Association for Computing Machinery*. Retrieved from <http://www.acm.org/publications>

Sirulnick, C. H. (Writer), & Stieglitz, L. (Director). (2008). I live another life on the web [Television series episode]. In M. Eisen (Producer), *True Life*. New York City: MTV Networks.

APPENDIXES

Appendix A

Questionnaire

Cal Poly Students' Use of Social Media Technology

Created: January 18 2011, 1:19 PM
Last Modified: February 07 2011, 1:42 PM
Design Theme: Aquarium
Language: English
Button Options: Labels
Disable Browser "Back" Button: False

Cal Poly Students' Use of Social Media Technology

Page 1 - Heading

Part I: Social Networking Sites (SNS)

Page 1 - Question 1 - Yes or No

Do you have a profile set up on a social networking site (e.g. Facebook, Twitter)? If no, skip to PART II on the next page.

- Yes
 No

Page 1 - Question 2 - Choice - Multiple Answers (Bullets)

If yes, what site(s) do you use? [check all that apply]

- Facebook
 Twitter
 MySpace
 Second Life
 Linked In
 Other, please specify

Page 1 - Question 3 - Open Ended - One Line

How much time, on average, do you spend on SNS per day?

Page 2 - Heading

Part II: Smart Phones

Page 2 - Question 4 - Yes or No

Do you have a smart phone (e.g. iPhone, Blackberry) with active internet capability? If no, skip to PART III on the next page.

- Yes
 No

If yes, what applications do you use most frequently? [check only 3]

- SNS
- Email
- Games
- Internet browser
- Video
- Other, please specify

How much time, on average, do you spend using applications on your smart phone per day?

- SNS
- Email
- Games
- Internet browser
- Video
- Other

Part III:

Indicate your level of agreement as to your use of social media technology (SNS and/or smart phones) inhibiting your ability to complete a task.

Completely Disagree (doesn't inhibit)
 D i s a g r e e
 Neither Disagree nor Agree
 A g r e e
 Completely Agree (does inhibit)

Indicate your level of agreement as to how much your use of social media technology impacts the following areas:

	Completely Disagree (doesn't impact)	Disagree	Neither Disagree nor Agree	A g r e e	Completely Agree (does impact)	N / A
Ability to meet new people online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to meet new people in-person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to complete assignments on time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motivation to exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A d e q u a t e s l e e p	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Focus at work



Page 3 - Question 9 - Rating Scale - One Answer (Horizontal)

Do you spend more time in a virtual (online) or physical (person-to-person) social setting?

Entirely Virtual **Mostly Virtual** Equally Virtual and Physical **Mostly Physical** **Entirely Physical**



Page 3 - Question 10 - Open Ended - One Line

Age:

Page 3 - Question 11 - Choice - One Answer (Drop Down)

Gender:

- Female
- Male

Page 3 - Question 12 - Open Ended - One Line

Current Major:

Thank You Page

Thank you so much for your time!

Screen Out Page

Standard

Over Quota Page

Standard

Survey Closed Page

Standard

Appendix B
Informed Consent Letter

INFORMED CONSENT TO PARTICIPATE IN A STUDY OF SOCIAL MEDIA TECHNOLOGY

A research project on social media technology is being conducted by Kelsey O'Lea as a senior project in Recreation, Parks, and Tourism Administration under the direct supervision of Dr. Jeff Jacobs. The purpose of this research is to examine social media technology use by college students.

You are being asked to take part in this study by completing an online questionnaire. Your participation will take approximately 3-5 minutes. Please be aware that you are not required to participate in this research, and you may discontinue your participation at any time without penalty. You may omit any items you prefer not to answer.

There are no risks anticipated with participation in this study.

Your anonymity will be protected through an anonymous questionnaire. Please ensure anonymity by not writing your name on the questionnaire. Potential benefits associated with the study include providing leisure professionals with a better understanding of college students' uses of social media technology so that they may predict industry trends, and limit the risks associated with social media technology use.

If you have questions regarding this study or would like to be informed of the results when the study is completed, please feel free to contact Kelsey O'Lea at kolea@calpoly.edu. If you have questions or concerns regarding the manner in which the study is conducted, you may contact Dr. Steve Davis, Chair of the Cal Poly Human Subjects Committee, at 756-2754, sdavis@calpoly.edu, or Dr. Susan Opava, Dean of Research and Graduate Programs, at 756-1508, sopava@calpoly.edu.

If you agree to voluntarily participate in this research project as described, please indicate your agreement by completing the online questionnaire. Please keep this form for your reference, and thank you for your participation in this research.