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MySpace Use as a Potentially Dysfunctional Internet Behavior

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Dedication

The following Master's thesis is dedicated to family, friends, and faculty members for their unconditional support in continuing my education.

MySpace Use as a Potentially Dysfunctional Internet Behavior

By

Linda Maria Anderson, BA

THESIS

Presented to the Faculty of the Graduate School of

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Acknowledgements

Abstract

As Internet use has increased, the use of social networking websites such as MySpace and Facebook has become widespread. This study examined the prevalence of dysfunctional Internet-related behaviors in a sample of 302 undergraduates with MySpace accounts. Dysfunctional Internet behaviors were assessed by a Dysfunctional Internet Use Scale (DIUS) developed by Morahan-Martin and Schumacher (2000), and dysfunctional Internet behaviors specifically related to MySpace were assessed by a separate instrument modeled on the DIUS, the Dysfunctional MySpace Use Scale (DMUS). According to criteria suggested by Morahan-Martin and Schumacher, the prevalence of dysfunctional Internet use in the present sample was 39.7%, and the prevalence of dysfunctional MySpace use was 34.1%. These numbers were substantially higher than would be expected based on prior studies (Morahan-Martin & Schumacher, 2000; Niemz, Griffiths, & Banyard, 2005) suggesting that dysfunctional Internet may have increased during the past ten years. Dysfunctional Internet behaviors exhibited slight but significant correlations with introversion and neuroticism (all r's < .20). Factor analyses of the DIUS, DMUS, and other measures of internet use, revealed the presence of five dimensions of Internet behavior, including four pathological dimensions (Negative Feelings About MySpace Use, Compulsion to Use MySpace, Criticism Regarding MySpace Use, and Interference with Occupational or Academic Performance) and one non-pathological dimension (Social Use of MySpace).

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Chapter 1: Introduction

MySpace began in 2003 as an attempt by Chris DeWolfe and Tom Anderson to promote musicians. It soon boomed into an international phenomenon. The idea was to create a website to allow an artist's music to be heard worldwide. This was done by posting the musician's music on the Internet and allowing members to download the songs for free. MySpace has now become so popular that musicians are not only posting their songs on their MySpace profile but some have also written songs about MySpace.

The character of MySpace has changed and expanded substantially since it was first introduced. It is now devoted primarily to free online social networking. Currently there are an estimated 60 million members of MySpace worldwide. This number continues to increase every day.

MySpace caters to just about anyone from online gamers to music searchers, and people use MySpace for various reasons. A commonly heard reason for initially getting a MySpace account is to stay in contact with friends both locally and those who have moved away. However, once people join MySpace they frequently find themselves becoming involved in other activities and opportunities it offers, such as blogging, posting bulletins, watching online movie clips, playing online games, and surfing for new musical talents.

One of the most prominent differentiating characteristics of MySpace in comparison to other social networking sites is the ability to customize the profile. Other websites such as Friendster, Facebook, and Hi5 do not allow such freedom to individualize one's profile page. See Figure 1.1.
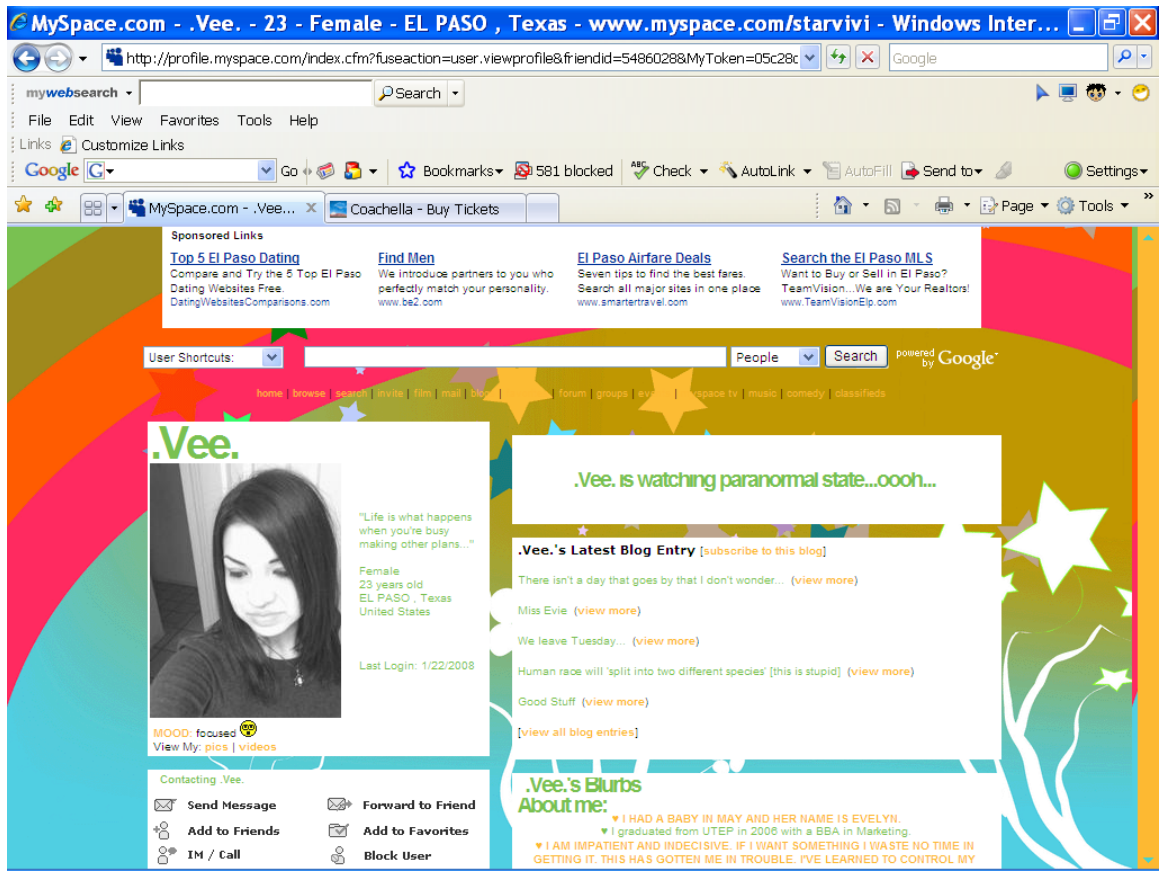
Figure 1.1: Example of a Customized MySpace Profile

There are options to limit who may view a profile. Some people set their profiles viewable only to those who are 18 years old or older. Other individuals choose to set their profile to "public." This allows anyone (even those without MySpace accounts) to view the profile. Lastly, "private" is another option to set a profile. Only those who are the confirmed "friends" on their MySpace account will be granted access to the profile.

Though practically anyone can become a member of MySpace, there are some restrictions: the site is prohibited to those under fourteen, although no proof of age is required. MySpace also forbids the use of "personally identifiable information," though it permits such information as the person's name, hometown, and birthday. Although MySpace is not the first of

its kind (similar sites include Friendster, Hi5, Facebook, etc.), it is considered the top social-networking site on the Internet.

It is not uncommon for members to incorporate MySpace into their "real" (vs. online) lives, spending a large amount of time actively logged in. Some members even go so far as to refer to their "MySpace addiction." The question arises whether the involvement of such people in MySpace may be so extensive, and with such negative consequences, as to be considered a pathological behavior or an addiction.

1.1   Defining Addiction

Substance Related Addiction. Substance Dependence, as defined by the DSM-IV-TR, is a "maladaptive pattern of substance use, leading to clinically significant impairment or distress." Other DSM-IV-TR characteristics include (occurring at any time in the same 12-month period):

a) the substance is often taken in larger amounts or over a longer period than was intended.

b) there is a persistent desire or unsuccessful efforts to cut down or control substance use.

c) a great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.

d) important social, occupational, or recreational activities are given up or reduced because of substance use.

e) the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

In addition to a diagnosis of substance dependence, the diagnosis can be specified as either "with physiological symptoms" or "without physiological symptoms." This clarifies whether or not a person with a substance dependence exhibits tolerance and/or withdrawal symptoms.

Non-substance related addiction. Not all addictions are substance related. The DSM-IV now recognizes other "Impulse-Control Disorders Not Elsewhere Classified" that have important characteristics in common with substance abuse addictions. Some disorders that fall under this category are Kleptomania, Pyromania, Pathological Gambling, and Trichotillomania.

For instance, Pathological Gambling is defined as an impulse control disorder in which a person persistently gambles despite the negative consequences of the behavior (i.e. financial loss and social impairments). The criteria for the disorder in the DSM-IV-TR are:

a) is preoccupied with gambling

b) needs to gamble with increasing amounts of money in order to achieve the desired excitement

c) has repeated unsuccessful efforts to control, cut back, or stop gambling

d) is restless or irritable when attempting to cut down or stop gambling

e) gambles as a way of escaping from problems or of relieving a dysphoric mood after losing money gambling, often returns another to get even

f) lies to family members, therapist, or others to conceal the extent of involvement with gambling

g) has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling

h) has jeopardized or lost a significant relationship, job, or educational or

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educational or career opportunity because of gambling

j) relies on others to provide money to relieve a desperate financial situation

caused by gambling

In order to be diagnosed with Pathological Gambling one must possess at least five of the above listed criteria. The behavior also cannot be better explained by a Manic Episode.

Although there is not an "Internet Addiction" or "Pathological Internet Use" listed in the DSM-IV, Young (2004) has suggested that such a disorder could be conceptualized as having features analogous to those of Pathological Gambling. Specifically, Pathological Internet Use (PIU) could be defined as an impulse-control dysfunctional behavior causing significant daily living impairments. The criteria for pathological gambling can be modified to provide a set of diagnostic criteria for PIU:

a) is preoccupied with the Internet

b) needs to log onto the Internet for longer sessions in order to achieve the desired

excitement

c) has repeated unsuccessful efforts to control, cut back, or stop logging onto the

Internet

d) is restless or irritable when attempting to cut down or stop logging onto the

Internet

e) goes online as a way of escaping from problems or of relieving a dysphoric mood

f) lies to family members, therapist, or others to conceal the extent of

involvement with the Internet

g) has jeopardized or lost a significant relationship, job, or educational or

educational or career opportunity because of Internet use

1.2   Studies on Dysfunctional Internet Use

Although it is debatable whether dysfunctional use of the Internet should be classified as a diagnostic category, several authors have discussed the more limited issue of whether Internet use can be so excessive and maladaptive for some individuals as to be considered pathological. Over the past several years, there has been an increase in research regarding this topic. Shaffer, Hall, and Bilt (2000) have suggested that the concept of Internet addiction be based on three major components: "craving or compulsion, loss of control, and persistence." Noting that the media have devoted considerable coverage to so-called "Internet addiction," Nichols and Nicki (2004), argued that there was a need to develop a psychometrically sound Internet addiction scale in order to classify such behavior. They created the 36-item Internet Addiction Scale (IAS) and demonstrated its high internal reliability (Cronbach's $\alpha = .95$) in a student sample.

In a review article, Young (2004) has proposed several potential contributing factors to university students' Internet pathology: Internet access, unstructured time, new absence of parental control, lack of censorship, institutional encouragement to use the Internet, social intimidation and estrangement, and drinking ages. Young (2004) characterizes higher drinking ages as a contributing factor to internet pathology because undergraduates are generally under the legal drinking age thus minimizing social interactions at bars and facilitating a substitution for the absence with the Internet. Other researchers have also developed scales to assess dysfunctional or pathological behavior on the Internet.

In 2000, Morahan-Martin and Schumacher developed a scale to assess negative behaviors and emotions associated with Internet use. This scale, which the authors published without a name, will be referred to in the present thesis as the Dysfunctional Internet Use Scale (DIUS). The DIUS is a self-report questionnaire with 13 items, such as "I have been told I spend too

much time online" and "I feel guilty about the amount of time I spend online." In a sample of 277 undergraduates at a Rhode Island college, Morahan-Martin and Schumacher assigned participants who endorsed four or more items to a Pathological Internet Use (PIU) group. Those who endorsed one to three items were assigned to a Limited Symptom (LS) group, and the remaining participants, who did not endorse any symptoms, were assigned to a No Symptom (NO) group. Results of this research indicated that most (64.7%) undergraduate Internet users endorsed at least one symptom and 8.1% fell into the PIU category of four or more symptoms. Morahan-Martin and Schumacher concluded that undergraduate college students are a high-risk population for engaging in pathological Internet behavior. This study was conducted several years prior to the appearance of MySpace and therefore may not reflect current levels of pathological Internet involvement.

Researchers have also been trying to identify personal characteristics that might be more common among those who use the Internet excessively. In the study by Morahan-Martin & Schumacher (2000) already described, the UCLA Loneliness scale was administered to the 277 participants. According to this scale, pathological users (those participants who endorsed four or more symptoms based on the DIUS) were significantly more lonely than both those who exhibited limited symptoms (1-3 symptoms) and no symptoms.

Campbell, Cumming, and Hughes (2006) conducted a study of 188 volunteer online and 27 offline participants ranging in age from 14 to 58. The online participants were recruited through a generated website ("Psyberspace") linked to the University of Sydney, School of Behavioural and Community Health Sciences website. Offline participants were undergraduate students. Participants completed an array of questionnaires including the Zung Depression Scale (ZDS), Depression, Anxiety and Stress Scale (DASS), Eysenck Personality Questionnaire-

Revised Short Scale (EPQ-R Short), Fear of Negative Evaluation Scale (FNE), Internet Use Questionnaire (IUQ), and Internet Effects Questionnaire (IEQ). The IUQ and the IEQ were created by the authors specifically for this study to assess how an individual's time is spent online and attitudes towards personal Internet use and those of others.

Campbell et al. (2006) split participants into two groups: "Chat User" (n= 137) and "Non Chat" (n=51). This was to differentiate those who primarily use the Internet for social needs and those who use it for information. Chat users were younger (M=28.6 vs. M=32.6) and spent more time online (M=3.6 vs. M=2.41 hours) than non chat users. Campbell et al. (2006) showed chat users scored significantly lower on the FNE and the EPQ-R Short Lie scale, suggesting they were less socially fearful and less likely to present a false, socially desirable exterior to others. Based on the Internet Effects Questionnaire (IEQ), 86% of the overall sample agreed the Internet can be addictive.

Based on a study conducted at Nottingham Trent University in Nottingham, United Kingdom with a sample of 371 students (undergraduate and postgraduate), Niemz, Griffiths, and Banyard (2005) attempted to replicate the findings of Internet use pathology reported by Morahan-Martin and Schumacher (2000). Participants were divided in three groups depending on their field of study: hard sciences, soft science, or liberal arts. All participants were given the DIUS, the General Health Questionnaire-12 (GHQ-12), the Rosenberg Self-Esteem Scale, and a social confidence and socially liberating scale taken from Morahan-Martin and Schumacher as well. Niemz et al. found 18.3% of the overall participants could be categorized as Internet pathological users (4 or more symptoms endorsed on the DIUS), followed by 51.2% experiencing limited symptoms (endorsing 1-3 symptoms). Participants who spent relatively more weekly time on the Internet had significantly higher DIUS scores than participants who

spent relatively less time. The hard science group also had significantly higher scores than the soft science group. Pathological users demonstrated lower self-esteem than the limited symptom and no symptom groups.

Ebeling-Witte, Frank, and Lester (2007) researched the relationship of Internet use with shyness and personality factors in a sample of 88 undergraduate students from the Richard Stockton College of New Jersey in Pomona, New Jersey. Participants completed a demographic page, the Revised Cheek and Buss Shyness Scale, the Online Cognition Scale, the Yang and Lester Computer Usage Scale, the Eysenck Personality Questionnaire Revised (short version), and the Abbreviated Duke Social Support Index. The Online Cognition Scale (OCS) was used to measure problematic use of the Internet. Results showed a significant negative correlation between Extraversion and the OCS ($r = -0.32$, $p = 0.05$). A significant positive correlations, $r = 0.41$, was reported between the OCS and shyness as measured by the Revised Cheek and Buss Shyness Scale. The OCS was not significantly correlated with neuroticism or psychoticism.

Cao & Su (2006) conducted a study to examine the prevalence of Internet addiction among 2,620 Chinese high school students. They used a translated version of the Diagnostic Questionnaire for Internet Addiction (YDQ), which is an 8-item dichotomous answer ("yes" or "no") scale created by Young (1996). Participants also completed a children's edition of the Eysenck Personality Questionnaire, the Time Management Disposition Scale, and a Strengths and Difficulties Questionnaire. The average weekly use for the sample was 3.8 (SD=5.8) hours. Of the 2,620 students, 64 were categorized as Internet "addicted." Average weekly use for the Internet addicted students was 11.1 (SD=8.6) hours. Results showed the Internet addicted students (n=64) had significantly higher neuroticism and psychoticism scores, as well as significantly lower scores on the Time Management Disposition Scale, than a control group of

students who were classified by the YDQ as showing normal Internet use (n=64). However, no significant difference in introversion/extraversion was found between the Internet addicted group and the control group.

1.3   Purpose of the Present Study

The primary purpose of this study was to research the potentially pathological involvement of undergraduates in the Internet social networking website known as MySpace. The study examined a sample of MySpace users, to describe the kind of activities they engaged in while being logged on, and any social, occupational or academic impairments caused by being involved with MySpace.

A secondary purpose of this study was to examine Internet and MySpace dysfunctional behavior in relation to the Big Five personality characteristics (Introversion/Extraversion, Neuroticism, Agreeableness, Conscientiousness, and Openness to Experience). Based on prior research by Ebeling-Witte et al. (2007) and Cao & Su (2007), it was predicted that Introversion and Neuroticism scores would be positively correlated with the number of dysfunctional Internet behaviors reported by participants.

Another purpose of the study was to examine the relationship between amount of time spent online and dysfunctional Internet behaviors. Based on findings by Niemz et al. (2005), it was predicted that participants who spent more time on MySpace would be more likely to report more dysfunctional Internet behaviors.

Finally, a purpose of the present study was to examine the factor structure, item characteristics, and concurrent validity of several measures of dysfunctional and non-pathological Internet use.

Chapter 2: Method

The original sample of participants consisted of 307 UTEP students enrolled in lower level Psychology courses who participated in the study for course credit.   Participants had to have an existing MySpace account to be included in the study. To verify accounts, participants were asked by the experimenter to log onto their MySpace account during the study.

Five participants were deleted from the original sample of 307. Reasons for deletion included random responding, missing data, MySpace account not confirmed, only use MySpace for school assignments, and someone else set the account for the participant. Of the remaining 302 participants, 63.2% were females and 36.4% were males. Participants were 84.8% Hispanic, 7.0 % Non-Hispanic White, and 3.0% African American. The remaining participants were predominantly of mixed ethnicity. Ages ranged from 17 to 46, with a mean of 19.89 ($SD = 3.12$) and a median of 19.

Procedure. The study was approved by the Institutional Review Board (IRB) of the University of Texas at El Paso and was conducted primarily in the David B. Vinson laboratory for Psychological Research and Data Analysis, which is located in the Psychology building on the University of Texas at El Paso campus. This location was chosen because it has 26 available computers for use. Occasionally, experimental sessions were conducted in Dr. James Wood's laboratory (also located in the Psychology building of the University of Texas at El Paso campus). All data were collected in March and April of 2008.

When participants arrived at the laboratory, they were greeted and asked to sit at a computer. Once all participants arrived, the purpose of the study was explained to them. Next a packet of materials was passed out to each participant. This packet included an informed consent form (see Appendix A), a demographics sheet (see Appendix B), the MySpace Questionnaire

(see Appendix C), the Goldberg Personality Questionnaire (see Appendix D), the Dysfunctional

Internet Use scale (see Appendix E), and the Dysfunctional MySpace Use scale (see Appendix

F). The experimenter discussed the packet with students to explain how it was to be filled out.

Participants were also reminded that the experimenter was going to come around and ask the

participant to log onto their MySpace individually. The experimenter also explained that if

participants did not understand the meaning of a word used in one of the tests, they could ask the

experimenter for clarification or consult an Internet dictionary (i.e. www.dictionary.com).

Participants then filled out all the sheets in the packet and returned it to the experimenter.

Upon verification of the participant's MySpace account and completion of the packet, the

participant was excused. Each participant received one hour credit for completion of the study.

During the study, the experimenter individually asked each participant to confirm his or

her MySpace account. The participant was asked to log onto his or her MySpace account in front

of the experimenter. The experimenter then recorded that the participant's MySpace account had

been confirmed. This information was recorded on the last page of the MySpace Questionnaire,

which had a box marked for experimenters only (see Appendix C). The experimenter also asked

the participant to access his/her blog page so that the experimenter could confirm and record the

date when the MySpace account was created.

Materials. Each participant was given an informed consent form, a demographic

questionnaire, a MySpace questionnaire, the Goldberg Personality questionnaire, the

Dysfunctional Internet Use Scale (DIUS), as well as the Dysfunctional MySpace Use Scale

(DMUS).

Measures: Informed Consent. This informed consent form conformed with the standards

of the University of Texas at El Paso IRB and described the purpose, procedures, and benefits of

the study. It also discussed confidentiality issues and provided contact information should the participant have further questions regarding the study or participants' rights (see Appendix A).

Demographics Sheet. This demographic sheet requested information regarding participants' age, gender, ethnic group, birth date, and University classification. After the experimenter entered the date of birth and age into a computer file data, this information was excised from the demographics sheet and discarded, to protect confidentiality of participants. See Appendix B.

MySpace Questionnaire. This questionnaire was created for the present study and included 47 items (see Appendix C). Most of the questions used a 5-point Likert-type format, although some used other response formats. The questions on the Myspace Questionnaire focused on three topics: (1) frequency of MySpace use, (2) activities engaged in on MySpace, and (3) significant impairments or dysfunctions in daily living that have been caused by use of MySpace.

Some of the impairments investigated by this questionnaire were social, occupational, and academic. For instance, social impairment caused by MySpace was assessed by the question: "Do you miss out on social events because you are logged on MySpace?" Problems in the workplace stemming from MySpace use were measured by the question: "Do you get into trouble (or warned) at work or school because you are logged on MySpace?"

Compulsive urges and distress associated with MySpace use were also assessed by the questionnaire. For instance, compulsive urges were examined by the question, "Do you feel the urge to check your MySpace account whenever you're near a computer with Internet access?" Distress was assessed by questions such as, "Do you feel distressed when the system is down and you cannot log onto your MySpace account?"

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MySCAGE Scale. Three questions on the MySpace Questionnaire were modeled on the CAGE, a brief screening questionnaire for alcoholism used in medical settings (Watson, Detra, Fox, Ewing, Gearhart, & DeMotts, 1995). The acronym CAGE is derived from the key terms in the four assessment questions. Those questions are; Have you ever felt you should **c**ut down on your drinking? Have people **a**nnoyed you by criticizing your drinking? Have you ever felt bad or **g**uilty about your drinking? and Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (**e**ye opener)? (National Institute on Alcohol Abuse and Alcoholism, 2003, p. 334). Three of the CAGE alcoholism items were modified for the present study to assess MySpace use: "Do you feel that you should cut down on your MySpace usage? "Do people annoy you by criticizing your MySpace usage? Do you feel bad or guilty about your MySpace usage?" These three modified questions were then formed into a new scale and renamed the MySCAGE (see Appendix C).

MASIA One-Item Scale. Another scale was created based on an item from the MySpace Questionnaire. This was named the MySpace Addiction Single Item Assessment (MASIA). It is one item that asked (in respect to the past three months): "How often have you felt that you were addicted to MySpace?" (see Appendix C).

Goldberg Personality Questionnaire. This questionnaire assesses the "Big Five" personality factors: Surgency (Extroversion); Agreeableness; Conscientiousness; Emotional Stability (vs. Neuroticism); and Culture, Intellect, or Openness (Goldberg, 1992; see Appendix 4). The questionnaire consists of 100 different descriptive personality words that are rated by the participant on a scale of 1 ("Extremely Inaccurate") to 9 ("Extremely Accurate"). The questionnaire thus consists of five scales, each consisting of 20 personality descriptors and measuring one of the Big Five personality factors. Previous research (Goldberg, 1992) has

reported that the internal reliability of these five scales is good, with coefficient alphas ranging from .84 - .88. Furthermore, Goldberg (1992) has presented evidence of the scales' concurrent validity, reporting their correlations with other Big 5 measures such as the NEO-PI. Results showed .30-.69 correlations between the five factors from the Goldberg Personality Questionnaire and the NEO-PI domain scales, which include Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. See Appendix D.

Dysfunctional Internet Use scale (DIUS). This scale was developed by Morahan-Martin and Schumacher (2000) to assess overall dysfunctional use of the Internet. As previously noted, although the authors published this scale without a name, in the present study it is referred to as the Dysfunctional Internet Use Scale (DIUS). The 13 yes/no questions of the DIUS inquire concerning emotional distress, occupational or academic problems, or interpersonal difficulties related to internet use (see Appendix E).

An example of a DIUS question concerning interpersonal difficulties is "I have never gotten into arguments with a significant other over being online." An example of a question assessing emotional distress is "I have used online to talk to others at times when I was feeling isolated." An example of a question concerning occupational problems is "I have gotten into trouble with my employer or school because of being online." An example of a question concerning academic problems is "I have missed classes or work because of online activities." Internet withdrawal symptoms can be gauged by; "I have attempted to spend less time online but have not been able to." The internal reliability (alpha) of the DIUS as reported by Morahan-Martin and Schumacher (2000) was 0.876.

Morahan-Martin and Schumacher (2000) established cut-off scores for the DIUS so that participants who reported 4 or more dysfunctional behaviors on the Internet were classified as

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exhibiting "Pathological Internet Use," whereas participants who reported 1 to 3 symptoms were classified as exhibiting "Limited Symptoms." The authors did not provide an explanation how they selected these cut-off scores.

       Dysfunctional MySpace Use Scale (DMUS). This scale was created for the present study and was closely modeled on the DIUS. However, instead of assessing general dysfunctional use of the Internet, the DMUS was reworded to specifically assess dysfunctional use of MySpace (see Appendix F).

Chapter 3: Results

3.1 Participants' MySpace Use

As already discussed, the sample of the present study consisted of 302 participants. The length of time that participants had had a MySpace account ranged from 1 to 45 months, with a mean of 23.23 months (SD = 10.37) and a median of 25. Table 3.1 shows the frequencies for the length of time that participants had MySpace accounts.

Table 3.1: Length of Time That Participants Had MySpace Accounts: Frequencies
_____

Months	Percentage
1-6	7.9%
7-12	12.0%
13-18	10.6%
19-24	16.9%
25-30	20.5%
31-36	26.1%
37-42	5.0%
43 or more	1.0%

_____

If a participant had created an account recently (within the previous 1-4 months), the experimenter inquired if had had a previous account before creating this one. Of the 302 participants in the study, 19 (6.3%) participants had accounts that were created within the previous 1 to 4 months (1 month = 8; 2 months = 4; 3 months = 3; 4 months = 4). Of those 19 participants, more than half (12 participants) stated they had prior MySpace accounts.

The MySpace Questionnaire inquired regarding the amount of time that participants spent on MySpace. Results for amount of time spent on MySpace "yesterday" are shown in Table 3.2. Hours spent on MySpace "yesterday" had a mean of 1.12 (SD = 1.33), a median of 1, a mode of 1, and a range of 0-10 hours.

Table 3.2: Amount of time (in hours) spent on MySpace "Yesterday"
_____

Time	Frequency	Percentage
0	78	25.8%
Less than ½ hour	20	6.9%
½ hour	36	11.9%
1 hour	91	30.1%
1 ½ hours	5	1.7%
2 hours	34	11.3%
2 ½ hours	1	0.3%
3 hours	19	6.3%
4 hours	9	3.0%
5 + hours	9	3.0%

_____

Results for amount of time spent on MySpace "last week" are shown in Table 3.3. Hours spent on MySpace "last week" had a mean of 6.86 ($SD = 12.06$), a median of 4, a mode of 3 and a range of 0-168 hours. As can be seen, results are heavily skewed, and that therefore the median is probably the best measure of central tendency.

Table 3.3: Amount of time (in hours) spent on MySpace "Last Week"
_____

Time	Frequency	Percentage
0	16	5.3%
½ hour – ¾ hour	8	2.7%
1 hour	32	10.6%
1 ½ hours	2	0.7%
2 hours	30	9.9%
3 hours	44	14.6%
3 ½ hours	1	0.3%
4 hours	33	10.9%
5 hours	29	9.6%
6 hours	16	5.3%
7 hours	15	5.0%
8 hours	11	3.6%
9 hours	5	1.7%
10 hours	16	5.3%
11-19 hours	26	8.5%
20+ hours	19	6.2%

_____

3.2   DIUS, DMUS, MySCAGE, and MASIA scales: Descriptive Statistics and Distributions of Scores

This study included several measures of dysfunctional Internet and MySpace Use: (1) Dysfunctional Internet Use Scale (DIUS), (2) Dysfunctional MySpace Use Scale (DMUS), (3) MySCAGE, and (4) MASIA. The present section provides basic descriptive statistics and distributions of scores for all these measures.

As already discussed, the DIUS and the DMUS both have 13 dichotomous items. The number of items endorsed on the DIUS ranged from 0 to 11 with a mean of 3.35 (SD=2.21). The DMUS demonstrated an item endorsement range from 0 to 12 with a mean of 3.11 (SD=2.22) (see Table 3.4).

Table 3.4: Distribution of Scores for Dysfunctional Internet Use Scale and Dysfunctional MySpace

Number of Items Endorsed	DIUS		DMUS	
	No.	%	No.	%
0	19	6.3%	23	7.6%
1	43	14.2%	52	17.2%
2	57	18.9%	61	20.2%
3	63	20.9%	63	20.9%
4	40	13.2%	35	11.6%
5	30	9.9%	25	8.3%
6	26	8.6%	19	6.3%
7	8	2.6%	12	4.0%
8	7	2.3%	3	1.0%
9	5	1.7%	4	1.3%
10	2	0.7%	3	1.0%
11	2	0.7%	1	0.3%
12	0	0.0%	1	0.3%
13	0	0.0%	0	0.0%

As already discussed, the MySCAGE is a newly created 3-item instrument based on the 4-item CAGE, which assesses alcoholism. Although the four items of the CAGE have dichotomous responses, the three MySCAGE items created for the present study had a 5-point Likert response format. The mean total score across the three MySCAGE items was 2.08 (SD = 2.24), with a median of 1. Distribution of MySCAGE scores can be seen in Table 3.5.

Table 3.5: Distribution of Scores for MySCAGE

Total Score	No.	%
0	90	29.8%
1	65	21.5%
2	58	19.2%
3	19	6.3%
4	25	8.3%
5	13	4.3%
6	12	4.0%
7	11	3.6%
8	6	2.0%
9	2	0.7%
10	1	0.3%

The MySpace Addiction Single-Item Assessment (MASIA) is a single-item scale that inquired whether or not participants felt that they were addicted to MySpace. The question asks (within the past three months); "How often have you felt that you were addicted to MySpace?" Answer options were; "Very Often," "Often," "Sometimes," "Seldom," and "Never." Out of 302 participants, 135 (44.7%) reported never feeling addicted to MySpace in the passed three months. A total of 167 (35.8%) participants indicated that at least "sometimes" they felt addicted to MySpace within the last three months ("Sometimes" 23.8% + "Often" 7.0% + "Very Often" 5.0% = 35.8%). See Table 3.6.

Table 3.6: Item Endorsement Type of MASIA
_____

   Type of   Frequency   Percentage
Endorsement
_____

Never   135   44.7%
Seldom   59   19.5%
Sometimes   72   23.8%
Often   21   7.0%
Very Often   15   5.0%
_____

3.3   Intercorrelations of DIUS, DMUS, MySCAGE and MASIA Scales

As can be seen in Table 3.7, the scales measuring dysfunctional use of the Internet or MySpace were significantly intercorrelated. The DIUS and the DMUS were strongly correlated, $r = 0.748$, $p<0.01$. The MySCAGE significantly correlated with all the scales (DIUS, $r = 0.502$, $p<0.01$; DMUS, $r = 0.592$, $p<0.01$; and MASIA, $r = 0.647$, $p<0.01$). MASIA also was significantly correlated with all scales (DIUS, $r = 0.486$, $p<0.01$; DMUS, $r = 0.592$, $p<0.01$; and MySCAGE, $r = 0.647$, $p<0.01$).

Table 3.7: Intercorrelations of Scales
_____

Scale	DIUS	DMUS	MySCAGE	MASIA
DIUS	–	0.748**	0.502**	0.486**
DMUS		–	0.592**	0.591**
MySCAGE			–	0.647**
MASIA				–

_____
**. Correlation is significant at the 0.01 level (2-tailed).
N=302

3.4 DIUS, DMUS, MySCAGE, and MASIA scales: Frequency of Dysfunctional Internet and MySpace Use

Frequencies of dysfunctional Internet and MySpace use as measured by the DIUS and DMUS were assessed based on criteria proposed by Morahan-Martin and Schumacher (2000). According to these authors, endorsement of 0 DIUS items was classified as "No Symptoms", 1-3 was "Limited Symptoms", and endorsement of 4 or more items was classified as "Pathological Internet Use" or "Dysfunctional Internet Use." In the present study, these classification rules were adopted for both the DIUS and the DMUS.

As shown in Table 3.8, somewhat more participants fell into the dysfunctional category on the DIUS that on the DMUS. Specifically, on the DIUS 39.7% of participants fell into the category of "dysfunctional Internet use" (i.e., 4 or more DIUS items endorsed), whereas for the DMUS 34.1% of participants fell into the category of "dysfunctional MySpace use" (i.e., 4 or more DMUS items endorsed). Of course, it is unsurprising that dysfunctional MySpace use would be slightly less common than dysfunctional Internet use, because dysfunctional MySpace use is logically a subcategory of dysfunctional Internet use.

Table 3.8: Dysfunctional Use Frequencies based on the DIUS and DMUS
_____

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                              DIUS                    DMUS
                       _____          _____

Level of Symptoms      No.         %            No.         %
_____

No Symptoms (0)        19         6.3%          23         7.6%

Limited Symptoms (1-3) 163       54.0%          176       58.3%

Dysfunctional (4+)     120       39.7%          103       34.1%
_____
```

3.5   DIUS and DMUS Item Characteristics

The endorsement frequencies of individual DIUS items are shown in Table 3.9. As can be seen, four DIUS items were endorsed in the pathological direction by more than 40% of participants. Those items included "I have never gotten into arguments with a significant other over being online" (answered "No" by 49.3% of participants), "My work and/or school performance has not deteriorated since I started going online" (answered "No" by 49.0%), "I have used online to talk to others at times when I was feeling isolated" (answered "Yes" by 45.7%) and "I have been told I spend too much online" (answered "Yes" by 42.4%).

Table 3.9: DIUS Individual Question Endorsement

_____

Item No. & Topic	Response Category Indicating Dysfunction	Frequency of Dysfunctional Responses	
	"Yes" / "No"	No.	%
1. I have never gotten into arguments with a significant other over being online.	"No"	149	49.3%
4. My work and/or school performance has not deteriorated since I started going online.	"No"	148	49.0%
9. I have used online to talk to others at times when I was feeling isolated.	"Yes"	138	45.7%
2. I have been told I spend too much time online.	"Yes"	128	42.4%
6. I have gone online make to myself feel better when I was down or anxious.	"Yes"	111	36.8%
3. If it has been a while since I last logged on, I find it hard to stop thinking about what will be waiting for me when I do.	"Yes"	80	26.5%
8. I have routinely cut short on sleep to spend more time online.	"Yes"	68	22.5%
7. I have attempted to spend less time online but have not been able to.	"Yes"	59	19.5%
5. I feel guilty about the time I spend online.	"Yes"	57	18.9%
11. I have gotten into trouble with my employer or school because of being online.	"Yes"	14	14.6%
13. I have tried to hide from others how much time I am actually online.	"Yes"	26	8.6%
10. I have missed classes or work because of online activities.	"Yes"	21	7.0%
12. I have missed social engagements because of online activities.	"Yes"	12	4.0%

_____

The endorsement frequencies of individual DMUS items were also calculated, as shown in Table 3.10. As can be seen, three DMUS items were endorsed in the pathological direction by more than 40% of participants. Those items included "My work and/or school performance has not deteriorated since I started logging on MySpace" (answered "No" by 64.2%), "I have never gotten into arguments with a significant other over being logged on MySpace" (answered "No" by 52.6%), and "I have used MySpace to talk to others at times when I was feeling isolated" (answered "Yes" by 40.4%).

Table 3.10: DMUS Individual Question Endorsement

_____

Item No. & Topic	Response Category Indicating Dysfunction	Frequency of Dysfunctional Responses	
	"Yes" / "No"	No.	%
4. My work and/or school performance has not deteriorated since I started logging on MySpace.	"No"	194	64.2%
1. I have never gotten into arguments with a significant other over being logged on on MySpace.	"No"	159	52.6%
9. I have used MySpace to talk to others at times when I was feeling isolated.	"Yes"	122	40.4%
6. I have logged onto MySpace make to myself feel better when I was down or anxious.	"Yes"	105	34.8%
2. I have been told I spend too much time logged on MySpace.	"Yes"	80	26.5%
3. If it has been a while since I last logged on MySpace, I find it hard to stop thinking about what will be waiting for me when I do.	"Yes"	72	23.8%
7. I have attempted to spend less time MySpace but have not been able to.	"Yes"	56	18.5%
8. I have routinely cut short on sleep to spend more time MySpace.	"Yes"	46	15.2%
5. I feel guilty about the time I spend logged on MySpace.	"Yes	45	14.9%
13. I have tried to hide from others how much time I am actually MySpace.	"Yes"	24	7.9%
10. I have missed classes or work because of MySpace activities.	"Yes"	16	5.3%
12. I have missed social engagements because because of MySpace activities.	"Yes"	11	3.6%
11. I have gotten into trouble with my employer or school because of being MySpace.	"Yes"	9	3.0%

_____

A factor analysis was carried out that included all items of both the DIUS and the DMUS. The extraction method was Principal Axis factor analysis. The factors were not rotated because only one factor was extracted. The number of factors to extract was first estimated by examining the screeplot of eigenvalues, which revealed the presence of one very large general factor (see Figure 3.1).
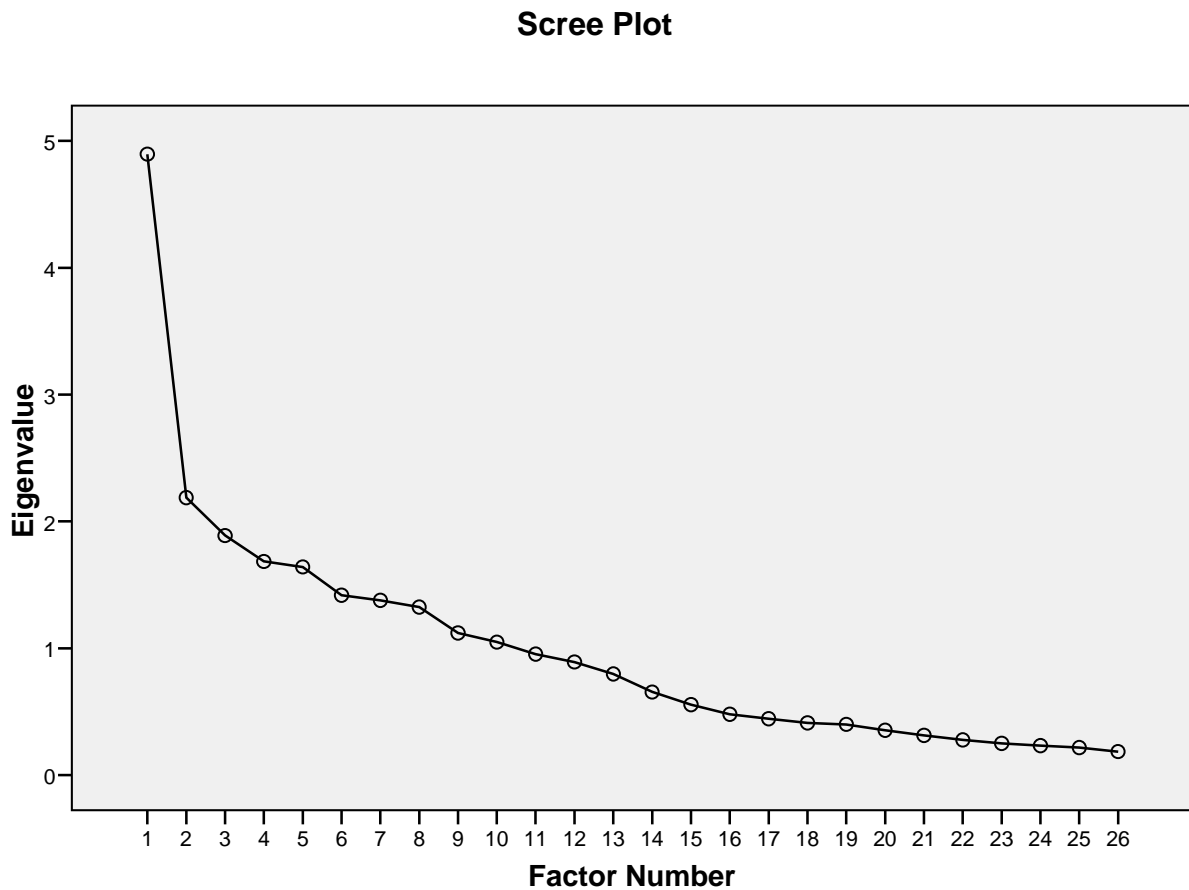
Scree Plot

Figure 3.1: Screeplot for DIUS and DMUS Factor Analysis

Based on a factor analysis of the DMUS and DIUS items, it can be seen in Table 3.11 that one factor seems to underlie the items in both measures, and that when a DIUS item and a

28

DMUS item share highly similar wording and content the items also tend to have highly similar factor loadings. The DMUS had slightly higher loadings than the DIUS on most items. As can be seen in Table 3.11, attempting to spend less time online/MySpace, feeling guilty about time spent online/MySpace, and having cut short on sleep to spend more time online/MySpace had the highest item loadings.

Table 3.11: Factor Analysis of DMUS and DIUS Items
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Item No. and Topic                                   Loading   Endorsement
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_____

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DMUS 7. Attempted to spend less time on MyS          0.617        18.5%
DIUS 7. Attempted to spend less time online          0.603        19.5%

DMUS 5. Felt guilty about time spent on MyS          0.637        14.9%
DIUS 5. Felt guilty about time spent online          0.521        18.9%

DMUS 8. Cut short on sleep for MyS                   0.541        15.2%
DIUS 8. Cut short on sleep for online                0.494        22.5%

DMUS 2. Told spend too much time on MyS              0.548        26.5%
DIUS 2. Told spend too much time online              0.465        42.4%

DMUS 13. Hide actual time spent on MyS               0.442         7.9%
DIUS 13. Hide actual time spent online               0.421         8.6%

DMUS 3. Hard to stop thinking about MyS              0.423        23.8%
DIUS 3. Hard to stop thinking about online           0.365        26.5%

DMUS 9. Used MyS when feeling isolated               0.395        40.4%
DIUS 9. Used online when feeling isolated            0.349        45.7%

DMUS 6. Logged onto MyS to feel better               0.390        34.8%
DIUS 6. Gone online to feel better                   0.337        36.8%

DMUS 12. Missed social engagements b/c of MyS        0.357         3.6%
DIUS 12. Missed social engagements b/c of online     0.343         4.0%

DMUS 10. Missed class/work due to MyS                0.236         5.3%
DIUS 10. Missed class/work due to being online       0.244         7.0%

DMUS 1. Never gotten into argument b/c MyS           0.189        52.6%
DIUS 1. Never gotten into argument b/c online        0.124        49.3%

DMUS 4. School work has not deteriorated             0.033        64.2%
DIUS 4. School work has not deteriorated             0.130        49.0%

DMUS 11. Gotten into trouble because of MyS         -0.040         3.0%
DIUS 11. Gotten into trouble because of online       0.087        14.6%
```
_____

3.6 MySCAGE Item Characteristics

The MySCAGE scale consisted of three items with a 5-point Likert format. Endorsement options included "Never"(coded as "1"), "Seldom"(coded as "2"), "Sometimes"(coded as "3"), "Often"(coded as "4"), and "Very Often"(coded as "5"). Endorsement frequencies for each MySCAGE question are shown in Table 3.12. The item assessing annoyance by criticism of MySpace use had a mean of 1.42 ($SD = 0.83$). The item assessing how often the participant felt the need to cut down on their MySpace use had a mean of 2.14 ($SD = 1.15$). The item assessing how often the participant felt bad or guilty about their MySpace use had a mean of 1.52 ($SD = 0.86$). The MySCAGE item most frequently endorsed in the pathological direction was "How often have you ever felt you should cut down on your MySpace usage?" (endorsed as "Sometimes," "Often," or "Very Often" true by 33.5% of participants).

Table 3.12: MySCAGE Individual Question Endorsement

Type of Endorsement	Annoyed by criticism of MyS use		Felt need to cut down MyS use		Felt bad or guilty about MyS use	
	No.	%	No.	%	No.	%
Never	227	75.2%	115	38.1%	200	66.2%
Seldom	38	12.6%	86	28.5%	59	19.5%
Sometimes	26	8.6%	54	17.9%	35	11.6%
Often	8	2.6%	38	12.6%	3	1.0%
Very Often	3	1.0%	9	3.0%	5	1.7%

3.7   Relationship of Big 5 With DIUS, DMUS, MySCAGE, and MASIA Scales

Intercorrelations among the Big 5 personality characteristics as measured by the Goldberg Personality Questionnaire (Goldberg, 1992) are shown in Table 3.13. As can be seen, significant positive correlations were found among all of the Big 5 personality factors, except for the correlation of Emotional Stability with Intellect ($r = 0.008$).

Table 3.13: Intercorrelations of Big 5 Personality Factors

Factor	1	2	3	4	5
1. Surgency	–	0.239**	0.154**	0.244**	0.354**
2. Agreeableness		–	0.408**	0.234**	0.388**
3. Conscientiousness			–	0.193**	0.299**
4. Emotional Stability				–	0.008
5. Intellect					–

**. Correlation is significant at the 0.01 level (2-tailed).
N = 302

A purpose of the study was to examine the relationship between the Big 5 and the DMUS (see Table 3.14). As predicted, DMUS scores had significant negative correlations with Surgency ($r = -0.167$, $p < 0.01$) and Emotional Stability ($r = -0.234$, $p < 0.01$), although the size of these correlations was small. The DMUS also exhibited a small significant negative correlation with Conscientiousness ($r = -0.138$, $p < 0.05$), although this relationship was not predicted. Agreeableness and Intellect did not significantly correlate with the DMUS scale total.

The correlations of the DIUS with the Big 5 personality factors were similar to what was observed with the DMUS scores (see Table 3.14). Specifically, the DIUS exhibited small but significant negative correlations with Surgency ($r = -0.231$, $p < 0.01$), Conscientiousness ($r = -$

0.180, $p < 0.01$), and Emotional Stability ($r = -0.229$, $p < 0.01$). In addition, the DIUS had a small but significant negative correlation with Agreeableness ($r = -0.144$, $p < 0.05$). No significant correlation was found between the DIUS and Intellect.

Similar to the DMUS, the MASIA ("How often have you felt that you were addicted to MySpace?") exhibited significant negative correlations with Surgency ($r = -0.113$, $p < 0.05$), Conscientiousness ($r = -0.144$, $p < 0.05$), and Emotional Stability ($r = -0.138$, $p < 0.05$), as shown in Table 3.14. However, the size of these correlations was small. No significant correlations were found for Agreeableness and Intellect. The MySCAGE had a small significant correlation with Surgency ($r = -0.143$, $p < 0.05$) and Emotional Stability ($r = -0.143$, $p < 0.05$), but was uncorrelated with the other Big 5 personality factors.

Table 3.14: Correlations of Big 5, DMUS, DIUS, MySCAGE, MASIA

Scale	Surgency	Agreeable ness	Conscientious ness	Emotional Stability	Intellect
DMUS	-.167**	-.078	-.138*	-.234**	-.110
DIUS	-.231**	-.144*	-.180**	-.229**	-.108
MySCAGE	-.143*	-.053	-.099	-.143*	-.055
MASIA	-.113*	-.027	-.144*	-.138*	-.088

```
**  Correlation is significant at the 0.01 level (2-tailed).
*  Correlation is significant at the 0.05 level (2-tailed).
N = 302
```

A multiple regression was performed with DMUS scores as the criterion and with the Big 5 Personality traits as predictors controlling for gender and age. Gender was coded as "0" for male and "1" for female. As seen in Table 3.15, Emotional Stability ($\beta = -.207$, $p < .01$) was the only one of the personality traits which significantly predicted dysfunctional behavior on the DMUS. This regression had a multiple R of 0.304, $R^2 = 0.092$, $p < .001$. In addition, DIUS scores were

significantly predicted by Emotional Stability ($\beta = -.162$, $p < .01$) as well as Surgency ($\beta = -.167$,

$p < .01$), with a multiple R of 0.333, $R^2 = 0.111$, $p < .001$. Gender was approaching significance

as evidenced by $\beta = .113$, $p = .054$. See Table 3.15.

Table 3.15: Multiple Regression of Big 5 Predicting Dysfunctional Behavior on the DMUS and
DIUS Scales

Personality Trait	DMUS			DIUS		
	B	SE B	β	B	SE B	β
Gender	.478	.272	.103	.518	.268	.113
Age	-.032	.040	-.044	-.005	.040	-.006
Surgency	-.202	.137	-.091	-.368	.135	-.167**
Agreeableness	.137	.164	.055	-.042	.161	-.017
Conscientiousness	-.217	.159	-.085	-.289	.156	-.114
Emotional Stability	.508	.147	-.207**	-.395	.144	-.162**
Intellect	-.173	.157	-.072	-.017	.155	-.007

**p < .01; N = 299

Additional analyses were performed to determine if personality traits were related to the

other measures of dysfunctional Internet use, also controlling for gender and age. As seen in

Table 3.16, the MySCAGE was not significantly predicted by any of the personality factors. The

MySCAGE regression had a multiple R of 0.215, $R^2 = 0.046$, $p = 0.054$. MASIA scores were

significantly predicted by Conscientiousness ($\beta = -.131$, $p < .05$) as well as with age ($\beta = -.134$, p

$< .05$). Gender was approaching significance as evidence by $\beta = -.113$, $p = .057$. The MASIA

regression had a multiple R of 0.278, $R^2 = 0.077$, $p = 0.001$. Both, the MySCAGE and the

MASIA, indicated lower predictability based on personality traits than the DMUS and the DIUS.

See Table 3.16.

Table 3.16: Multiple Regression of Big 5 Predicting Dysfunctional Behavior on the MySCAGE and MASIA Scales

Personality Trait	MySCAGE			MASIA		
	B	*SE B*	β	*B*	*SE B*	β
Gender	.228	.280	.049	.279	.146	.113
Age	−.054	.042	−.076	−.051	.022	−.134*
Surgency	−.248	.141	−.111	−.077	.075	−.065
Agreeableness	.077	.169	.031	.125	.089	.094
Conscientiousness	−.183	.163	−.071	−.178	.086	−.131*
Emotional Stability	.270	.151	−.109	−.155	.080	−.118
Intellect	−.012	.162	−.005	−.079	.086	−.061

p < .05; N = 299

3.8 MySpace Questionnaire Items: Descriptive Statistics

There were 47 items on the MySpace Questionnaire, which was created for use in the present study. Of these 47 items, 27 had a Likert response format, the remaining 20 item had varying response types, mostly fill-in-the-blank. Descriptive statistics for the 27 items with a Likert format can be seen in Table 3.17. As can be seen, the lowest endorsed items were: No.39 "In the past 3 months, have you missed class school or work because you were logged on MySpace" (92.7% endorsed as "Never"), No. 38 "How often have you missed on social events because you were logged on MySpace" (89.1% endorsed as "Never"), and No. 41 "How often

have you gotten into trouble (or been warned) at work or school because you were logged onto MySpace" (88.4% endorsed as "Never").

The highest endorsed items ("Sometimes" or more) of the MySpace Questionnaire were: No. 22 "How often have you enjoyed yourself when you were logged in on MySpace" ("Sometimes" = 45.0% + "Often" = 36.1% + "Very Often" = 7.0% = 88.1%), No. 36 "How often have you felt good about positive MySpace comments that were left on your profile" ("Sometimes" = 33.1% + "Often" = 37.7% + "Very Often" = 16.9% = 87.7%), and No.34 "How often have you felt the urge to check your MySpace account whenever you were near a computer with Internet access" ("Sometimes" = 31.1% + "Often" = 22.2% + "Very Often" = 14.9% = 67.2%).

Table 3.17: Response Frequencies for Individual Items on the MySpace Questionnaire

Item No. & Description	Type of Response				
	Never	Seldom	Sometimes	Often	Very Often
	No. %	No. %	No. %	No. %	No. %
21. How often have you thought that having many MyS friends was important	125(41.4%)	105(34.8%)	57(18.9%)	13(4.3%)	2(0.7%)
22. How often have you enjoyed yourself when you were logged in on MyS	4(1.3%)	31(10.3%)	136(45.0%)	109(36.1%)	21(7.0%)
23. How often have you found it easier to be open/expressive on MyS than in other social settings	49(16.2%)	65(21.5%)	99(32.8%)	59(19.5%)	30(9.9%)
24. How often have you felt more aware of local events because of MyS	63(20.9%)	67(22.2%)	85(28.1%)	65(21.5%)	22(7.3%)
25. How often have you felt you can relate to many people because of MyS	43(14.2%)	84(27.8%)	111(36.8%)	56(18.5%)	8(2.6%)
26. How often have you talked about MyS when you met new people	58(19.2%)	113(37.4%)	84(27.8%)	37(12.3%)	10(3.3%)
27. How often have people told you that you spend too much time on MyS	147(48.7%)	79(26.2%)	48(15.9%)	20(6.6%)	8(2.6%)
28. How often has time spent with your children decreased because of MyS	4(1.3%)	3(1.0%)	2(0.7%)	2(0.7%)	1(0.3%)
29. How often have you felt the urge to check your MyS account whenever you were near a computer with Internet access	26(8.6%)	70(23.2%)	94(31.1%)	67(22.2%)	45(14.9%)
30. How often have you kept MyS open on an extra tab or browser/window when you were using the computer	24(7.9%)	30(9.9%)	80(26.5%)	82(27.2%)	86(28.5%)
31. How often have you thought about MyS when you were not logged on	50(16.6%)	121(40.1%)	102(33.8%)	21(7.0%)	7(2.3%)
32. How often have you felt distressed when the system was down and you could not log onto your MyS account	126(41.7%)	60(19.9%)	43(14.2%)	11(3.6%)	12(4.0%)
33. How often have you urged people who do not have a MyS account to create one	109(36.1%)	82(27.2%)	52(17.2%)	25(8.3%)	12(4.0%)

Table 3.17 (*continued*): Response Frequencies for Individual Items on the MySpace Questionnaire

_____

	Type of Response				
	Never	Seldom	Sometimes	Often	Very Often
Item No. & Description	No. %	No. %	No. %	No. %	No. %
34. How often have you urged other people to become more active on MyS	125(41.4%)	94(31.1%)	62(20.5%)	18(6.0%)	3(1.0%)
35. How often have you felt good about positive MyS comments that were left on your profile	8(2.6%)	29(9.6%)	100(33.1%)	114(37.7%)	51(16.9%)
36. How often have you felt negatively affected by negative MyS comments that were left on your profile	99(32.8%)	66(21.9%)	44(14.6%)	7(2.3%)	6(2.0%)
37. How often have you been late for engagements or appointments because you continued to stay logged on MyS	215(71.5%)	45(14.9%)	33(10.9%)	5(1.7%)	4(1.3%)
38. How often have you missed out on social events because you were logged on MyS	269(89.1%)	21(7.0%)	8(2.6%)	1(0.3%)	3(1.0%)
39. Have you missed class or work because you were logged on MyS	280(92.7%)	14(4.6%)	6(2.0%)	2(0.7%)	0(0.0%)
40. How often have you failed to complete your work or schoolwork because you were logged on MyS	143(47.4%)	85(28.1%)	50(16.6%)	18(6.0%)	6(2.0%)
41. How often have you gotten into trouble (or been warned) at work or school because you were logged on MyS	267(88.4%)	28(9.3%)	5(1.7%)	2(0.7%)	0(0.0%)
42. How often have people complained about your MyS usage	210(69.5%)	56(18.5%)	29(9.6%)	4(1.3%)	2(0.7%)
43. How often have people annoyed you by criticizing your MyS usage	227(75.2%)	38(12.6%)	26(8.6%)	8(2.6%)	3(1.0%)
44. How often have you ever felt that you should cut down on your MyS usage	115(38.1%)	86(28.5%)	54(17.9%)	38(12.6%)	9(3.0%)
45. How often have you been dishonest about your MyS usage when asked	215(71.2%)	57(18.9%)	21(7.0%)	7(2.3%)	2(0.7%)
46. How often have you felt bad or guilty about your MyS usage	200(66.2%)	59(19.5%)	35(11.6%)	3(1.0%)	5(1.7%)
47. How often have you felt that you were addicted to MyS	135(44.7%)	59(19.5%)	72(23.8%)	21(7.0%)	15(5.0%)

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3.9   MySpace Questionnaire Items: Factor Analysis

A factor analysis was carried out on the MySpace Questionnaire items that were in a Likert format. However, three of these items were eliminated from the factor analysis due to very low endorsement rates. The first of these eliminated items was "How often has time spent with your children decreased because of MySpace?" This item had a low endorsement rate because most of the participants did not have children. Another eliminated item was "How often have you felt distressed when the system was down and you could not log onto your MySpace account?" This item had a low endorsement rate because most participants had not experienced the system (MySpace) being down in the past three months. The last item that was eliminated was "How often have you felt negatively affect by negative MySpace comments that were left on your profile?" This item had a low endorsement rate because most participants had not had any negative comments left on their profile in the past three months.

After eliminating these 3 items, 24 variables from the MySpace Questionnaire were then factor analyzed. The number of factors to extract was first estimated by examining the screeplot of eigenvalues, which revealed the presence of one very large general factor and perhaps as many as 6 additional smaller factors (see Figure 3.2). Table 3.18 shows the 1-factor solution for the MySpace Questionnaire items. The total number of participants who had complete data for all 24 items was 278, and all these participants were included in the factor analysis.

Scree Plot

Figure 3.2: Screeplot for MySpace Questionnaire Factor Analysis

Table 3.18: Factor Loadings for MySpace Questionnaire.
Initial Solution Using Principal Factor Analysis
Largest Loadings for Each Item Are in Bold Print. N = 278.

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Item Number and Description                    Factor Loading
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_____

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27. Been told spend too much time on MyS          .755

47. Felt addicted to MyS                          .734

31. Thought about MyS when not logged on          .690

29. Urge to check MyS when by computer            .639

42. People complain about MyS usage               .617

44. Felt the need to cut down on MyS              .600

46. Felt guilty about MyS usage                   .586

30. Kept MyS open on extra tab/window             .559

40. Failed to complete work because MyS           .544

33. Urged people to create MyS account            .525

23. Easier to be open/expressive on MyS           .516

25. Felt can relate to people because MyS         .513

26. Talk about MyS to new people                  .508

45. Dishonest about MyS usage                     .507

34. Urged people to be more active on MyS         .496

43. Felt annoyed about people criticism           .476

37. Late for appointments because MyS             .474

38. Missed social events because of MyS           .472

21. Having many MyS friends are important         .409

22. Enjoyed yourself on MyS                       .375

39. Missed class/work because MyS                 .366

24. Felt more aware of local events               .304

35. Felt good about positive comment              .426

41. Gotten into trouble at work/school            .143
```
_____

Although the one-factor solution gave reasonable results, factor solutions with a larger number of factors appeared interpretable. Therefore additional exploratory factor analyses were also performed, varying the number of factors between 1 and 7. The extraction method was Principal Axis factor analysis. The factors were rotated using Promax, an oblique rotational method. It was found that for a 5-factor solution, each factor had at least two high item loadings ($\geq$ .50), and the meaning of each factor could be easily interpreted from the content of the highest-loading items. The extraction of 6 or 7 factors did not produce similar interpretable factors with at least two high item loadings. Thus the 5-factor solution appeared to be the most informative and is shown in Table 3.19. Table 3.20 shows the intercorrelations among the 5 factors. The total number of participants who had complete data for all 24 items was 278, and all these participants were included in the factor analysis.
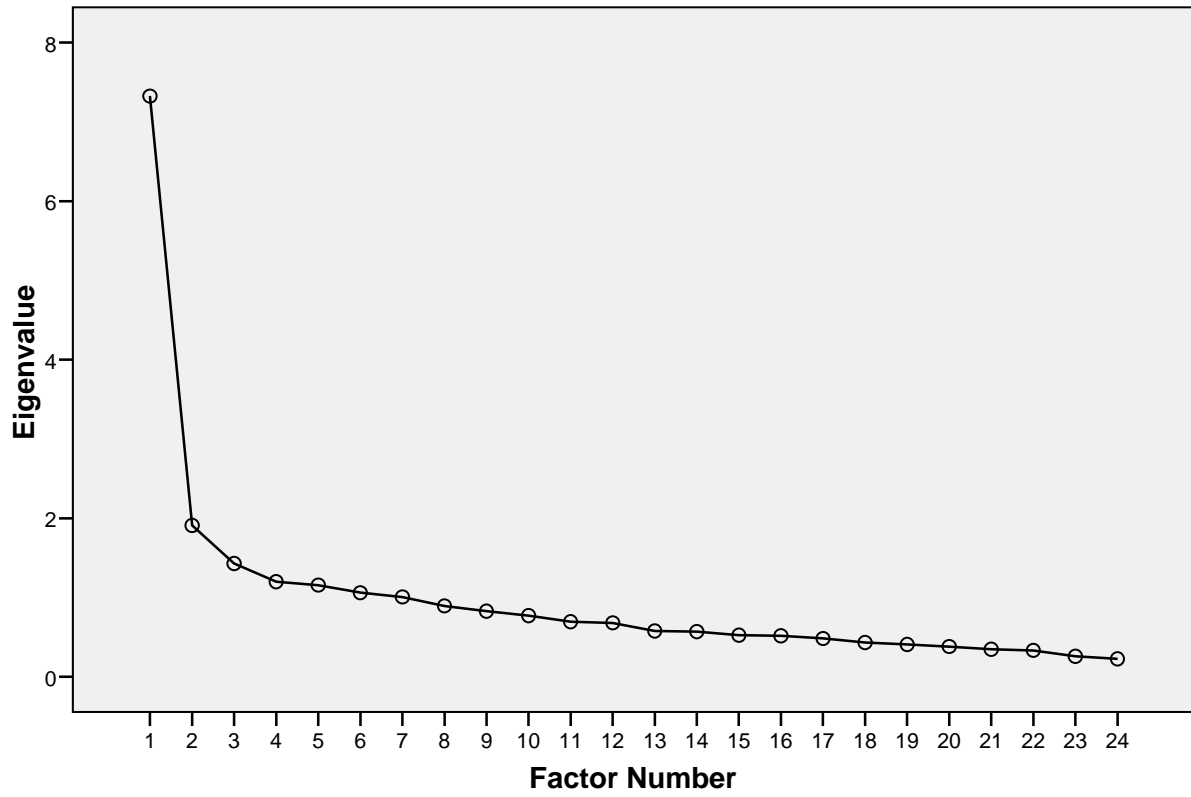
Table 3.19: Rotated Factor Loadings for MySpace Questionnaire.
Five-factor Solution Using Principal Factor Analysis and Promax Rotation.
Largest Loadings for Each Item Are in Bold Print. N = 278.

Item Number and Description	Factor				
	1	2	3	4	5
21. Having many MyS friends are important	**.559**	.113	-.158	-.043	.161
34. Urged people to be more active on MyS	**.515**	.163	-.084	.065	.048
23. Easier to be open/expressive on MyS	**.490**	-.006	.192	.052	-.038
25. Felt can relate to people because MyS	**.486**	.011	.254	.044	-.124
33. Urged people to create MyS account	**.483**	-.150	.184	.143	.047
26. Talk about MyS to new people	**.405**	-.102	.118	.194	.064
35. Felt good about positive comment	**.394**	-.065	.366	-.039	-.115
41. Gotten into trouble at work/school	**.219**	.080	-.012	-.065	-.012
44. Felt the need to cut down on MyS	-.123	**.734**	.158	.127	-.149
46. Felt guilty about MyS usage	.007	**.717**	-.089	.084	.070
45. Dishonest about MyS usage	.249	**.717**	.005	-.235	-.030
30. Kept MyS open on extra tab/window	.118	.039	**.735**	-.189	-.030
29. Urge to check MyS when by computer	.165	.080	**.516**	.009	.014
40. Failed to complete work because MyS	-.048	.135	**.448**	-.078	.227
47. Felt addicted to MyS	-.085	.393	**.395**	.131	.070
22. Enjoyed yourself on MyS	.285	-.127	**.363**	-.029	-.018
24. Felt more aware of local events	.285	.022	**.307**	-.140	-.088
31. Thought about MyS when not logged on	.182	.073	**.277**	.145	.213
42. People complain about MyS usage	-.068	-.024	-.041	**.886**	.014
43. Felt annoyed about people criticism	.093	-.001	-.263	**.840**	-.061
27. Been told spend too much time on MyS	-.006	.164	.295	**.457**	.008
38. Missed social events because of MyS	.082	.062	-.165	.021	**.756**
39. Missed class/work because MyS	-.005	-.072	.023	-.035	**.656**
37. Late for appointments because MyS	-.135	-.102	.382	-.070	**.575**

Table 3.20: Factor Correlation Matrix for MySpace Questionnaire

_____

Factor	1	2	3	4	5
1	–	.342	.452	.403	.349
2		–	.581	.606	.477
3			–	.668	.455
4				–	.572
5					–

_____

Based on the content of the items with highest loadings on each factor, the factors were tentatively named as follows: Factor 1, Social Use of MySpace; Factor 2, Negative Feelings About MySpace Use; Factor 3, Compulsion to Use MySpace; Factor 4, Criticism Regarding MySpace Use; Factor 5, MySpace Interference With Occupational/Academic Performance. As may be seen, Factor 1 was not pathological in content, but Factors 2 to 5 all reflected aspects of psychopathology (negative affect, feelings of compulsion, social conflict, and disruption of functioning).

Additional exploratory factor analysis including DIUS and DMUS. Another factor analysis was carried out on the MySpace Questionnaire items that were in a Likert format and the items from the DIUS and DMUS. The same three items that were eliminated from the MySpace Questionnaire factor analysis due to very low endorsement rates were also eliminated from this factor analysis. After eliminating these 3 items, 24 variables from the MySpace Questionnaire, 13 items from the DIUS, and 13 items from the DMUS (for a total of 50 items) were factor analyzed. Eigenvalues can be seen in the screeplot (see Figure 3.3). Table 3.21

shows the 1-factor solution for the MySpace Questionnaire, DIUS, and DMUS items. The total

number of participants who had complete data for all 50 items was 264, and all these participants

were included in the factor analysis.
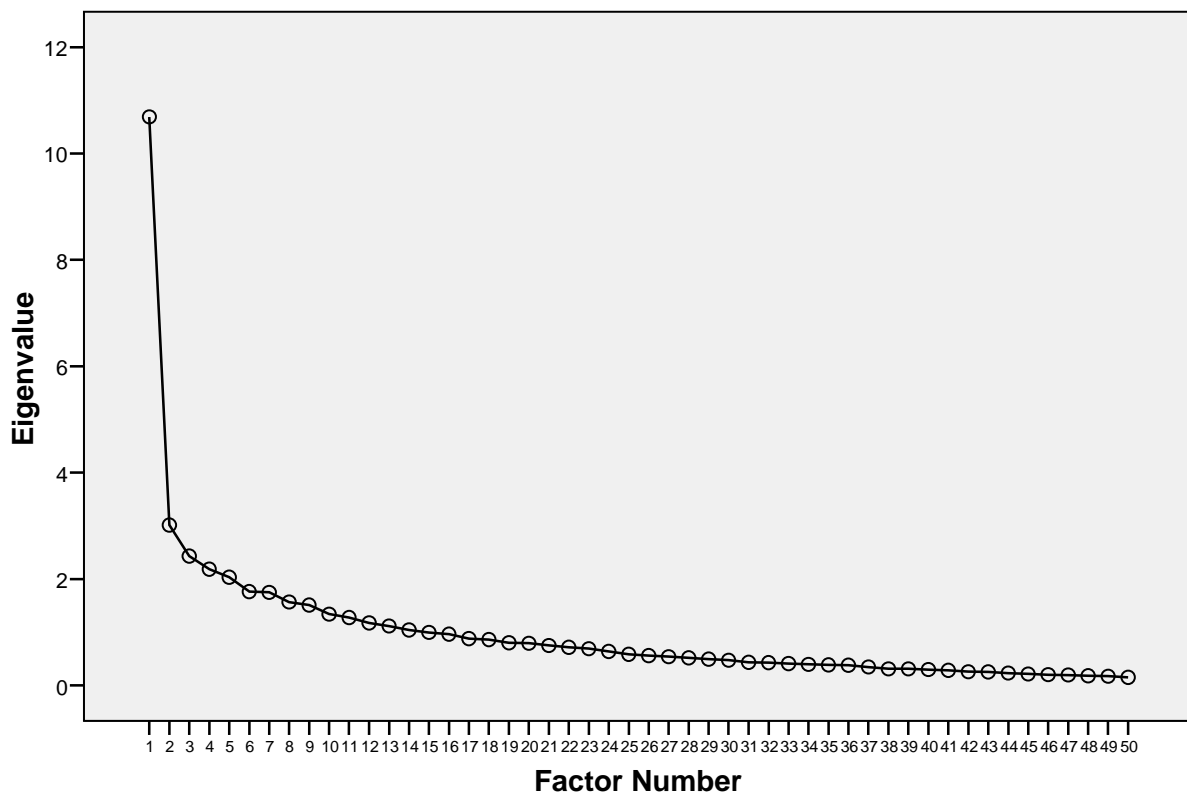
Scree Plot

Figure 3.3: Screeplot for MySpace Questionnaire, DIUS, DMUS Factor Analysis

Table 3.21: Factor Loadings for MySQ, DIUS, and DMUS.
Initial Solution Using Principal Factor Analysis and Promax Rotation.
Largest Loadings for Each Item Are in Bold Print. N = 264.

_____

Item Number and Description	Factor Loading
MyS 47. Felt addicted to MyS	.744
MyS 27. Been told spend too much time on MyS	.732
MyS 44. Felt the need to cut down on MyS	.661
MyS 46. Felt guilty about MyS usage	.658
MyS 31. Thought about MyS when not logged on	.655
DMUS 7. Attempted to spend less time on MyS	.633
DMUS 2. Told spend too much time on MyS	.616
MyS 42. People complain about MyS usage	.611
DMUS 5. Felt guilty about time spent on MyS	.580
MyS 29. Urge to check MyS when by computer	.580
MyS 40. Failed to complete work because MyS	.556
MyS 30. Kept MyS open on extra tab/window	.529
DMUS 8. Cut short on sleep for MyS	.517
MyS 25. Felt can relate to people because MyS	.508
DIUS 7. Attempted to spend less time online	.507
MyS 45. Dishonest about MyS usage	.496
MyS 33. Urged people to create MyS account	.470
MyS 43. Felt annoyed about people criticism	.459
MyS 37. Late for appointments because MyS	.456
MyS 23. Easier to be open/expressive on MyS	.455
DMUS 6. Logged onto MyS to feel better	.452
MyS 38. Missed social events because of MyS	.450
MyS 34. Urged people to be more active on MyS	.426
MyS 26. Talk about MyS to new people	.426
DIUS 2. Told spend too much time online	.421
DIUS 8. Cut short on sleep for online	.412
DIUS 5. Felt guilty about time spent online	.410
DMUS 9. Used MyS when feeling isolated	.406
DMUS 3. Hard to stop thinking about MyS	.395

Table 3.21 (*continued*): Factor Loadings for MySQ, DIUS, and DMUS
Initial Solution Using Principal Factor Analysis and Promax Rotation.
Largest Loadings for Each Item Are in Bold Print. N = 264.

_____

Item Number and Description	Factor Loading
DMUS 13. Hide actual time spent on MyS	.395
MyS 39. Missed class/work because MyS	.394
MyS 35. Felt good about positive comment	.384
DMUS 12. Missed social engagements b/c of MyS	.364
MyS 21. Having many MyS friends are important	.362
DIUS 6. Gone online to feel better	.354
DIUS 9. Used online when feeling isolated	.350
MyS 22. Enjoyed yourself on MyS	.345
DIUS 3. Hard to stop thinking about online	.319
DIUS 13. Hide actual time spent online	.304
DIUS 12. Missed social engagements b/c of online	.295
MyS 24. Felt more aware of local events	.269
DMUS 10. Missed class/work due to MyS	.253
DIUS 10. Missed class/work due to being online	.228
DMUS 1. Never gotten into argument b/c MyS	.221
DIUS 4. School work has not deteriorated	.170
MyS 41. Gotten into trouble at work/school	.154
DIUS 1. Never gotten into argument b/c online	.134
DIUS 11. Gotten into trouble because of online	.120
DMUS 4. School work has not deteriorated	.061
DMUS 11. Gotten into trouble because of MyS	-.006

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Following the same logic as described in the previous section, an exploratory factor analysis was carried out, extracting five factors. The extraction method was Principal Axis factor analysis. The factors were rotated using Promax, an oblique rotational method. Table 3.22 shows the rotated factor loadings for the MySpace Questionnaire, DIUS, and DMUS items when 5 factors were extracted. There were similarities and differences between the results of this factor analysis and the five-factor solution that included only items from the MySpace Questionnaire. For instance, both factor analyses included a factor that was related to occupational and academic problems due to MySpace use. However, social use of MySpace and compulsion to check MySpace emerged as two separate factors in the factor analysis of MySpace items only, but these two factors appeared to merge into a single factor when the DIUS and DMUS items were added to the item pool. Interestingly, two new factors emerged from the second factor analysis that included DIUS and DMUS items. One of these new factors included items which asked about any missed social engagements due to being online or being logged on MySpace. The other new factor included items which asked whether participants logged online or onto MySpace when feeling isolated or to make themselves feel better. See Table 3.22.

Table 3.23 shows the intercorrelations among the five factors in the factor analysis that included DIUS and DMUS items. The total number of participants with complete data for all 50 items was 264, and all these participants were included in the factor analysis.

Table 3.22: Rotated Factor Loadings for MySQ, DIUS, and DMUS.
Five-factor Solution Using Principal Factor Analysis and Promax Rotation.
Largest Loadings for Each Item Are in Bold Print. N = 264.

_____

Item Number and Description			Factor		
	1	2	3	4	5
DMUS 5. Felt guilty about time spent on MyS	**.846**	-.246	-.013	.012	-.038
MyS 47. Felt addicted to MyS	**.728**	.098	.099	-.090	-.070
MyS 27. Been told spend too much time on MyS	**.724**	.314	-.157	-.124	-.019
DMUS 2. Told spend too much time on MyS	**.713**	.167	-.203	-.089	.020
MyS 44. Felt the need to cut down on MyS	**.693**	-.031	.156	-.083	-.052
MyS 42. People complain about MyS usage	**.674**	.121	-.094	-.122	.049
DMUS 7. Attempted to spend less time on MyS	**.673**	-.099	.186	-.095	.034
DIUS 5. Felt guilty about time spent online	**.667**	-.209	-.133	.129	-.077
MyS 46. Felt guilty about MyS usage	**.627**	-.015	.112	.173	-.179
DIUS 7. Attempted to spend less time online	**.591**	-.180	.096	.046	.033
DIUS 2. Told spend too much time online	**.552**	.020	-.125	-.073	.023
MyS 43. Felt annoyed about people criticism	**.457**	.173	-.187	.024	.058
DMUS 8. Cut short on sleep for MyS	**.415**	.124	-.046	.109	.071
MyS 40. Failed to complete work because MyS	**.414**	.129	.045	.071	.055
MyS 37. Late for appointments because MyS	**.364**	.125	-.063	.053	.140
DMUS 13. Hide actual time spent on MyS	**.314**	-.146	.154	.257	-.002
DIUS 8. Cut short on sleep for online	**.312**	.062	-.062	.230	.045
DMUS 3. Hard to stop thinking about MyS	**.220**	.056	.176	.057	.039
DIUS 3. Hard to stop thinking about online	**.201**	.000	.191	.040	-.023
MyS 33. Urged people to create MyS account	-.017	**.635**	-.054	.128	.028
MyS 23. Easier to be open/expressive on MyS	-.023	**.580**	.101	-.016	.018
MyS 26. Talk about MyS to new people	.047	**.551**	-.025	.066	-.086
MyS 29. Urge to check MyS when by computer	.286	**.461**	.029	-.024	-.083
MyS 34. Urged people to be more active on MyS	.007	**.458**	.030	.064	.140
MyS 25. Felt can relate to people because MyS	.053	**.417**	.270	-.023	.004
MyS 21. Having many MyS friends are important	-.122	**.411**	.155	.182	.000
MyS 35. Felt good about positive comment	-.046	**.395**	.243	-.023	.001

49

Table 3.22 (*continued*): Rotated Factor Loadings for MySQ, DIUS, and DMUS Five-factor Solution Using Principal Factor Analysis and Promax Rotation. Largest Loadings for Each Item Are in Bold Print. N = 264.

Item Number and Description	Factor				
	1	2	3	4	5
MyS 24. Felt more aware of local events	.052	**.382**	.010	−.156	.029
DMUS 1. Never gotten into argument b/c MyS	−.071	**.364**	−.114	.157	.082
MyS 31. Thought about MyS when not logged on	.301	**.338**	.166	.076	−.030
MyS 30. Kept MyS open on extra tab/window	.243	**.337**	.165	−.123	.038
MyS 22. Enjoyed yourself on MyS	−.028	**.336**	.170	.038	.011
DMUS 4. School work has not deteriorated	−.096	**.316**	−.203	.112	−.006
DIUS 4. School work has not deteriorated	.046	**.306**	−.188	.049	.008
MyS 45. Dishonest about MyS usage	.213	**.256**	.129	.102	−.050
DIUS 1. Never gotten into argument b/c online	−.045	**.191**	.032	.100	−.088
DMUS 9. Used MyS when feeling isolated	−.075	−.014	**.814**	−.033	.013
DIUS 9. Used online when feeling isolated	−.070	−.062	**.757**	−.013	.005
DMUS 6. Logged onto MyS to feel better	−.013	.106	**.642**	−.028	.018
DIUS 6. Gone online to feel better	−.037	.027	**.546**	.043	.033
DMUS 12. Missed social engagements b/c of MyS	−.112	.243	−.021	**.741**	−.042
DIUS 12. Missed social engagements b/c of online	−.096	.166	−.040	**.716**	−.073
MyS 38. Missed social events because of MyS	.174	.145	−.044	**.440**	.057
DIUS 13. Hide actual time spent online	.234	−.141	.086	**.365**	−.078
DMUS 10. Missed class/work due to MyS	.140	−.116	−.010	.060	**.626**
DIUS 10. Missed class/work due to being online	.130	−.166	.059	.038	**.576**
MyS 41. Gotten into trouble at work/school	−.118	.146	.042	−.095	**.570**
MyS 39. Missed class/work because MyS	.213	−.143	.076	.242	**.488**
DIUS 11. Gotten into trouble because of online	−.087	.144	.003	−.128	**.488**
DMUS 11. Gotten into trouble because of MyS	−.169	.125	−.039	−.120	**.445**

Table 3.23: Factor Correlation Matrix for MySQ, DIUS, and DMUS
_____

Factor	1	2	3	4	5
1	–	.482	.455	.366	.201
2		–	.414	.140	.240
3			–	.220	.129
4				–	.211
5					–

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3.10   Miscellaneous Findings

In addition to the analyses already reported, several supplementary analyses were conducted.

MySpace pathology and amount of time spent online. One purpose of this study was to investigate the correlation between amount to time spent on MySpace and self-reported dysfunction. Pearson's r can be distorted by outliers so Spearman's rho is also listed in the table. As shown in Table 3.24, amount of time for "yesterday" and "last week" showed a small significant positive correlation with scores on the DIUS and DMUS. Amount of time for "yesterday" and "last week" showed slightly higher significant positive correlations with the MASIA. The MySCAGE demonstrated a high Pearson correlation with amount of time spent "yesterday" however the lowest correlation with amount of time spent "last week" However, Spearman's *rho* demonstrated a higher correlation for MySCAGE and amount of time spent logged on MySpace for "last week." (see Table 3.24).

Table 3.24: Correlations (Pearson's r and Spearman's rho) of DIUS, DMUS, MySCAGE, MASIA, and amount of time (hours) spent on MySpace

| Scale | Amount of Time | | | |
| | "Yesterday" | | "Last Week" | |
	r	rho	r	rho
DIUS	0.265**	0.239**	0.229**	0.301**
DMUS	0.299**	0.211**	0.292**	0.313**
MySCAGE	0.378**	0.301**	0.197**	0.404**
MASIA	0.387**	0.351**	0.297**	0.450**

**. Correlation is significant at the 0.01 level (2-tailed).
N=302

Big 5 and amount of time spent on MySpace. Correlations were calculated between the Big 5 Personality Factors and the amount of self-reported time spent on MySpace. Only one significant correlation was found between time spent on MySpace "yesterday" and the Big 5: Conscientiousness exhibited a low negative correlation with time spent on MySpace "yesterday, $r = -0.133$, $p < 0.05$. Time spent on MySpace "last week" had more significant correlations with the Big 5 (Surgency: $r = -0.120$, $p < 0.05$; Emotional Stability: $r = -0.124$, $p < 0.05$ and Intellect: ($r = 0.118$, $p < 0.05$). Though these correlations were significant, they were very small. See Table 3.25.

Table 3.25: Correlations of Big 5 and amount of time spent online

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_____

            Surgency   Agreeable   Conscientious   Emotional   Intellect
Time                     ness          ness        Stability
Spent
Online
_____

Yesterday    0.039       0.028       -0.133*        -0.052      -0.042
Last Week   -0.120*     -0.080       -0.095         -0.124*     -0.118*
_____
```

* Correlation is significant at the 0.05 level (2-tailed).
N = 302

A multiple regression was also performed with amount of time spent on MySpace as the criterion and with the Big 5 as predictors and controlling for age and gender. As seen in the results shown in Table 3.26, Conscientiousness (β = -.159, $p < .05$) was the only one of the personality traits which significantly predicted amount of time spent on MySpace "yesterday." This regression had a multiple *R* of 0.220 ($R^2 = 0.048$, $p > .05$). Gender was approaching significance as demonstrated by β = -.116, $p = .055$. However, amount of time spent on MySpace "last week" was not significantly predicted by any of the personality traits. This regression analysis had a multiple *R* of 0.205, $R^2 = 0.042$, $p > .05$. See Table 3.26.

Table 3.26: Multiple Regression of Big 5 Predicting Amount of Time Spent Online

Personality Trait	"Yesterday"			"Last Week"		
	B	SE B	β	B	SE B	β
Gender	.323	.168	.116	1.674	1.521	.067
Age	-.017	.025	-.041	-.245	.225	-.063
Surgency	.099	.084	.074	-.717	.763	-.060
Agreeableness	.175	.101	.116	.141	.913	.010
Conscientiousness	-.243	.098	-.159*	-.615	.883	-.045
Emotional Stability	-.097	.090	-.066	-1.368	.816	-.103
Intellect	-.094	.097	-.065	-1.145	.876	-.087

p < .05. N=299

Reasons for having a MySpace account. Item 10 of the MySpace Questionnaire inquired about the reasons that participants had a MySpace account. This item listed 12 different reasons, plus an "other" category that could be filled in by the participants. Results show that participants endorsed 1 to 10 reasons for having a MySpace Account, with a mean of 4.52 reasons. As shown in Table 3.27, highest endorsements were for "stay in contact with friends" (95% endorsement), "find old friends" (76.2% endorsement), and "entertainment" (55.6% endorsement).

Table 3.27: Reasons for Having a MySpace Account: Frequency of Endorsement by Participants
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Reason for Having Account                      No.        %
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_____

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Stay in contact with friends                   287     95.0%
Find old friends                               230     76.2%
Entertainment                                  168     55.6%
Boredom                                        160     53.0%
Check out new music                            136     45.0%
Make new friends                               133     44.0%
Stay updated with people's lives/profile       113     37.4%
To be more social                              59      19.5%
Dating                                         26       8.6%
Other                                          25       8.3%
School assignments                             19       6.3%
Business purposes                              6        2.0%
Play MySpace games                             2        0.7%
```
_____

MySpace activity involvement. The MySpace Questionnaire included 10 items that assessed the type of MySpace activities in which participants actively engaged during the previous month. These items had a free response, fill-in-the blank response option in which the participant was to record how many times in the prior month they participated in the listed MySpace activities. As shown in Table 3.28, the most frequent MySpace activities were leaving comments on friends' profiles (M=26.92, SD=33.99), sending MySpace messages (M=20.43, SD=32.78), and searching for music on MySpace (M=11.70, SD=18.74). The least frequent activities were participating in MySpace groups (M=0.14, SD=0.86), writing MySpace blogs (M=0.36, SD=1.09), and arranging to meet someone in person that the participant had first met on MySpace (M=0.43, SD=3.31).

Table 3.28: Number of Times During Prior Month That Participants Engaged in Different Types of MySpace Activity

_____

MySpace Activity	M	SD	MIN	MAX	Median	Mode
Left MyS comments on friend's profiles	26.92	33.99	0	250	15	20
Sent MyS messages	20.43	32.78	0	261	10	10
Searched for music on MyS	11.70	18.74	0	130	5	0
Left MyS picture comments on profiles	8.59	14.03	0	120	4	0
Searched for new friends on MyS	3.99	13.48	0	200	0	0
Posted MyS bulletins	3.25	6.46	0	50	0	0
Read MyS Blogs	3.06	6.08	0	50	1	0
Arranged to meet someone in person when first met them on MyS	0.43	3.31	0	50	0	0
Written MyS Blogs	0.36	1.09	0	10	0	0
MyS Groups	0.14	0.86	0	5	0	0

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MySpace account settings: Private vs. Public. MySpace provides the option of having an account set for public or private viewing. An account that is not set on private enables the profile page to be viewed by everyone, including individuals who do not have a MySpace account. A private account allows only those that are listed as that person's "friends" access to view their profile page. More participants reported that they had their profiles set on private (53.7%) than on public (42.7%) viewing.

Perceptions of excessive time spent online. Participants were asked to specify how long they thought was too long for them to be logged on MySpace each day. Results are shown in Table

3.27. For 30.1% of participants, 1-2 hours was rated as "too long". For 21.2%, 2-3 hours was to

long, and for 18.5%, 4 or more hours was too long.

In addition, participants were asked to specify how long they thought was too long for

someone else to be logged on MySpace each day. As shown in Table 3.29, the highest

endorsement for someone else was 4+ hours at 33.1% followed by 1-2 hours at 23.2% and 2-3

hours at 22.8%.

Table 3.29: Too much time spent each day on MySpace considered for self and someone else

_____

	Self		Someone Else	
	_____		_____	
Time	No.	%	No.	%
_____				
0-30 minutes	10	3.3%	3	1.0%
30-60 minutes	39	12.9%	16	5.3%
1-2 hours	91	30.1%	70	23.2%
2-3 hours	64	21.2%	69	22.8%
3-4 hours	42	13.9%	44	14.6%
4+ hours	56	18.5%	100	33.1%

_____

Time spent with children decreased due to MySpace use. One of the MySpace Questionnaire

items asked if time spent with the participant's children in the past three months had decreased

due to MySpace use. Most participants reported not having children, however this item was

applicable to 12 participants. Of these 12 participants, 5 (41.7%) reported decreased time spent

with their children "Sometimes" or more ("Sometimes" = 2, "Often" = 2, "Very Often" =1) due

to their MySpace use.

MySpace system failure distress. Another one of the MySpace Questionnaire items assessed

how often in the past three months a participant felt distressed when the system was down and

they were unable to log onto their MySpace account. Fifty participants reported that the system

had not been down in the past three months. Of the remaining 252 participants, 126 of those

participants reported never feeling distressed and 66 (26.3%) participants reported feeling

distressed "Sometimes" or more ("Sometimes" = 43, "Often" = 11, "Very Often" =12) when the

system was down and they could not log onto MySpace.

Chapter 4: Discussion

Five findings of the present study are particularly noteworthy. First, scores on two different instruments suggested that more than one-third of the MySpace users could be categorized as exhibiting dysfunctional behavior on the Internet and MySpace. Secondly, consistent with the findings of prior studies, introversion and neuroticism were found to exhibit small but significant positive correlations with dysfunctional Internet/MySpace use. Third, also consistent with the findings of prior studies, a modest correlation was found between the amount of time spent logged on MySpace and the level of dysfunctional MySpace use.

Fourth, moderate to strong correlations were found among the four measures of dysfunctional Internet/MySpace use in the present study, thus providing evidence of these measures' concurrent validity. Fifth and finally, factor analyses of the MySpace questionnaire revealed at least five distinguishable dimensions of the subjective experience of Internet/MySpace Use. Each of these five findings will be discussed in detail in the following sections.

4.1 Prevalence of Dysfunctional Internet and MySpace Use

Participants in the present study demonstrated higher dysfunctional Internet use than was expected based on previous research. Morahan-Martin and Schumacher (2000) conducted a study in which participants were 277 undergraduate students who had experience using the Internet and were enrolled in courses that required the use of the Internet. Results from that study indicated that 8.1% of participants could be classified as exhibiting pathological Internet use, with 4 or more self-reported symptoms on the DIUS. Morahan-Martin and Schumacher also reported that 64.7% of their participants fell in the Limited Symptom category (i.e., 1-3 self-reported symptoms).

Niemz et al. (2005) measured dysfunctional Internet behaviors among 371 British undergraduate and postgraduate students. Students were recruited through an email which had a link to complete an "Internet Survey." This study used the same instrument (the DIUS) and the same criteria for identifying dysfunctional behavior that were used by Morahan-Martin and Schumacher (2000). Niemz et al. found that 18.3% of their participants could be categorized as pathological Internet users, with 4 or more self-reported symptoms on the DIUS. An additional 51.2% exhibited limited symptoms, with 1-3 symptoms.

Table 4.1 compares the findings of these earlier studies with the findings of the present study. As can be seen, in the present study, 39.7% of participants fell into the category of pathological Internet use (4 or more symptoms on the DIUS), and an additional 54.0% of participants fell into the Limited Symptom category (1-3 symptoms). Thus the present study found a prevalence of dysfunctional Internet use that was nearly five times as high (39.7% versus 8.1%) as the rate reported by Morahan-Martin and Schumacher (2000), and more than twice as high (39.7% versus 18.3%) as the rate reported by Niemz et al. (2005).

Consistent with these findings, participants in the present study also reported more hours online than has been previously found. The average number of hours that participants reported spending on MySpace during the previous week was 6.86, which was nearly twice the amount of time (3.45 hours) that the participants of Morahan-Martin and Schumacher (2000) reported spending on the Internet each week.

Specifically pertaining to MySpace use, 34.1% of participants in the present study fell into the dysfunctional category (4 or more items endorsed on the DMUS), and an additional 58.3% showed limited symptoms (1-3 symptoms). Earlier researchers have not specifically

examined dysfunctional MySpace use, so a comparison of these findings with earlier results is not possible.

Table 4.1: Pathological Internet Use Across Studies

_____

	Endorsement Category		
	No Symptom (0)	Limited Symptoms (1-3)	Pathological (4+)
Study			
Morahan-Martin & Schumacher (2000)	27.2%	64.7%	8.1%
Niemz et al. (2005)	30.5%	51.2%	18.3%
Current Study (2008)	6.1%	54.0%	39.7%

_____

Many students in the present study were bilingual in Spanish and English. Because double negative sentences have a different meaning in Spanish than in English, the question might arise whether the differences in DIUS scores between the present sample and prior samples may have been due to confusion among the present participants regarding the two reversed DIUS items (i.e., Item 1, "I have never gotten into arguments with a significant other over being online," and Item 4, "My work and/or school performance has not deteriorated since I started going online").

To explore this possibility, the endorsement rates of each individual item of the DIUS were compared between the Morahan-Martin and Schumacher study of 2000 and the present study. As can be seen in Table 4.2, almost all of the DIUS items -- not just the reversed items -- had substantially higher endorsement rates in the present study than in the study by Morahan-Martin and Schumacher in 2000. Thus, the overall higher DIUS scores observed in the present study cannot be attributed primarily, if at all, to participants' confusion about the reversed items.

Table 4.2 DIUS Item Endorsement Across Studies

_____

Item No. & Topic	Frequency of Dysfunctional Responses	
	2000 (%)	2008 (%)

_____

1. I have never gotten into arguments with a significant other over being online.	49.7%	49.3%
2. I have been told I spend too much time online.	9.2%	42.4%
3. If it has been a while since I last logged on, I find it hard to stop thinking about what will be waiting for me when I do.	11.3%	26.5%
4. My work and/or school performance has not deteriorated since I started going online.	32.9%	49.0%
5. I feel guilty about the time I spend online.	5.9%	18.9%
6. I have gone online to make myself feel better when I was down or anxious.	4.4%	36.8%
7. I have attempted to spend less time online but have not been able to.	7.8%	19.5%
8. I have routinely cut short on sleep to spend more time online.	4.7%	22.5%
9. I have used online to talk to others at times when I was feeling isolated.	10.0%	45.7%
10. I have missed classes or work because of online activities.	2.9%	7.0%
11. I have gotten into trouble with my employer or school because of being online.	2.9%	14.6%
12. I have missed social engagements because of online activities.	1.9%	4.0%
13. I have tried to hide from others how much time I am actually online.	5.2%	8.6%

_____

The question arises why the rate of dysfunctional Internet use was so much higher in the present study than was reported by Morahan-Martin and Schumacher (2000) and by Niemz et al. (2005). There are several possible explanations for this difference. First, the samples studied by Morahan-Martin and Schumacher (2000) and Niemz et al. (2005) consisted of undergraduate and graduate students who used the Internet, whereas the sample in the present study consisted of undergraduate students who not only used the Internet but also had an active MySpace. Thus the participants in the present study may represent a special subgroup of Internet users whose Internet use is unusually intense and who have a particularly high likelihood of developing dysfunctional Internet behaviors.

Although this difference in sample characteristics may partially explain why the prevalence of dysfunctional Internet use was higher in the present study than in earlier studies, this explanation probably cannot account entirely for the differences in prevalence rates. The author of the present study conducted an informal survey of undergraduate students enrolled in two of the undergraduate classes from which her participant sample was drawn. Of 201 students in these classes, 149 (74.1%) reported they had an active MySpace account, and an additional 21 students reported that they currently did not have an account but had a MySpace account in the past. If it is very conservatively assumed that the prevalence of dysfunctional Internet use is 0% among the 25.9% of students who do not currently have a MySpace account, and that the prevalence of dysfunctional use is 34.1% among the 74.1% of students who currently, have a MySpace account, then the overall prevalence rate of dysfunctional use among Introductory Psychology students can be estimated as approximately 25.9% (= [0 * .259] + [.341 * .741]), which is approximately three times higher than the rate reported by Morahan-Martin and Schumacher (2000), and almost 40% higher than the rate reported by Niemz et al. (2005).

Furthermore, it must be recognized that the rate of 25.9% almost certainly underestimates the prevalence of dysfunctional Internet use among Introductory Psychology students, because the prevalence of dysfunctional use among the students without a MySpace account is probably greater than 0%, for instance because at least some of these students are likely to have internet accounts on other social networking websites, such as Facebook or Hi5.

A second possible explanation for the higher prevalence rates observed in the present study is that social networking websites have become increasingly popular over the past eight years. MySpace had not been created in 2000, the year when Morahan-Martin and Schumacher published their study. Increased use of social networking websites may account for higher prevalence of dysfunctional Internet use. However, it should be noted that other types of Internet use have also increased during the past decade and may partially or completely account for the apparent increase in dysfunctional Internet behavior. On the other hand, the present study indicated that the rate of dysfunctional MySpace use was 34.1%, whereas the total rate of dysfunctional Internet use was only slightly higher at 39.7%. These numbers suggest that, at least among MySpace users, MySpace probably accounts for most dysfunctional Internet use.

Before turning from the subject of dysfunctional Internet use, it might be helpful to comment on the use of the MySCAGE and MASIA to identify dysfunctional Internet use. The MySCAGE and MASIA scales do not have any pre-designated cutoffs. However, it can be noted that the DMUS identified approximately one-third (34%) of participants as falling into the dysfunctional category. If the dysfunctional cut-off for the MySCAGE is set at 3 or higher, then slightly fewer than one-third (29.5%) of participants in the present study would be classified in the dysfunctional category. Similarly, if the cut-off for the MASIA is set so that individuals who say they "Sometimes/Often/Very Often" feel addicted to MySpace are classified as

dysfunctional, then about one-third (35.8%) of participants in the present study would be classified in the dysfunctional category. Because these cut-offs all yield approximately the same prevalence of dysfunction, it is suggested that in future research, the cut-off for the MySCAGE might reasonably be set at 3 or higher, and the cut-off for the MASIA be set at "Sometimes" or more.

When the findings from the DIUS, DMUS, MySCAGE, and MASIA are considered as a whole, the question arises whether it is appropriate to classify approximately one-third of MySpace users as Internet "addicts." The DSM-IV makes a distinction between substance *abuse* (limited but clinically significant problems associated with substance use) and substance *dependence* (a more pervasive and serious pattern of dysfunction). It might be helpful to apply a similar distinction to dysfunctional Internet use, distinguishing between Internet Abuse and Internet Dependence.

Although there is no clear dividing line between Internet Abuse and Internet Dependence, a reasonable distinction might be derived by noting that on the MASIA, 23.8% of participants in the present study reported "Sometimes" feeling addicted to MySpace, and an additional 15% reported "Often" or "Very Often" feeling addicted. It would be reasonable, to interpret a response of "Sometimes" on the MASIA as suggestive of Internet Abuse, and a response of "Often" or "Very Often" as suggestive of Internet Dependence. From the MASIA results, therefore, it could be estimated that approximately 15% of participants in the present study might be exhibiting a level of dysfunctional Internet use that is pervasive enough to be considered Internet Dependence.

The estimated 15% base rate can be used to derive tentative cut-offs between abuse and dependence for the remaining three measures of dysfunctional Internet use. For the MySCAGE,

a cut-off of 5/6 yields the following prevalences: 10.6% Internet Dependence (MySCAGE 6 or higher); 18.9% Internet Abuse (MySCAGE 3 to 5). For the DIUS, a cut-off of 5/6 yields the following prevalences: 16.6% Internet Dependence (DIUS 6 or higher), 23.1% Internet Abuse (DIUS 4 to 5). For the DMUS, a cut-off of 5/6 yields the following prevalences: 14.2% MySpace Dependence (DMUS 6 or higher), 19.9% MySpace Abuse (DIUS 4 to 5).

The cut-offs suggested here are highly tentative and might well need to be adjusted after appropriate cross-validation research is carried out. However, they can provide some guidance for future studies that use these instruments.

4.2 Time Spent Online and Dysfunction

Morahan-Martin and Schumacher (2000) found that individuals with dysfunctional Internet use as measured by the DIUS spent significantly more time online (M=8.48 hours per week) than those with limited symptoms (M=3.18 hours per week) or no symptoms (M=2.47 hours per week). Niemz et al. (2005) found similar results using the DIUS in a different sample.

Consistent with these earlier findings, the current study found significant positive correlations between time spent on MySpace and endorsement of Internet dysfunctional behavior. Time was separately assessed in terms of "yesterday" and "last week." All measures of dysfunctional Internet behavior demonstrated higher correlations with time spent on the Internet "yesterday" than with time spent on the Internet "last week." The MASIA (which measured self-reported feelings of addiction to MySpace) had the strongest correlation with time spent "yesterday" ($r = 0.387$), followed by the MySCAGE ($r = 0.378$), DMUS ($r = 0.299$), and DIUS ($r = 0.265$).

These findings provide support for the construct validity of these four measures, since in theory dysfunctional Internet use should be correlated with higher Internet use, just as, for

example, Alcohol Abuse and Alcohol Dependence are correlated with higher levels of alcohol use. However, these findings also suggest that the number of hours spent on the Internet is not a particularly strong indicator of dysfunctional Internet use but only a single component of the overall problem. Thus, spending a great deal of time online is a necessary but not sufficient condition for dysfunctional Internet use.

4.3   Dysfunctional Internet/MySpace Behavior and Personality Traits

Some previous research investigating personality traits and problematic Internet use has reported a relationship of dysfunctional Internet use with Introversion/Extroversion and Neuroticism (e.g., Ebeling-Witte et al., 2007, Cao & Su, 2007). Consistent with these earlier findings, the present study found that introversion/extroversion and neuroticism were significantly related to dysfunctional Internet use and dysfunctional MySpace use, although the correlations tended to be small. The largest correlation was in a negative direction between the DMUS and Emotional Stability ($r = -0.234$). That is, participants who endorsed more dysfunctional MySpace behaviors also tended to report somewhat higher levels of neuroticism. The second strongest correlation was also in a negative direction between the DIUS and Surgency ($r = -0.231$). That is, participants who reported more dysfunctional Internet behaviors also tended to describe themselves as somewhat more introverted. As with the DMUS, the DIUS was significantly and negatively correlated with Emotional Stability ($r = -0.229, p = 0.01$).

It is unsurprising to find that dysfunctional Internet or MySpace use is somewhat higher in individuals with a tendency to neuroticism and introversion. Neuroticism includes characteristics such as nervousness, being tense, insecurity, and moodiness (Goldberg, 1992). These types of individuals may feel more secure being on the Internet, or specifically MySpace, than interacting in the real world. Introversion includes characteristics such as being shy, quiet,

reserved, and untalkative (Goldberg, 1992). MySpace may be providing introverted type people the opportunity to interact with other people and express themselves, even though they are generally too reserved to do so outside of an Internet interaction.

4.4   Time spent online and the Big 5

In exploratory analyses, the present study investigated the relationship of amount of self-reported time spent on MySpace with the Big 5 Personality Factors. Only a few significant correlations were found, and these were small. For example, a significant negative correlation was discovered between time spent on MySpace "yesterday" and Conscientiousness ($r = -0.133$). Time spent on MySpace "last week" was negatively correlated with Surgency ($r = -0.120$) and Emotional Stability, ($r = -0.124$) and positively correlated with Intellect ($r = 0.118$). These findings suggest that there is at best a weak relationship between personality factors and the amount of time that participants spend on MySpace.

4.5   Concurrent Validity: Intercorrelations of Scales Measuring Dysfunctional Behavior

All the scales used in this study to measure Internet dysfunction or MySpace dysfunction were found to be significantly intercorrelated, as reported in Table 7. These intercorrelations provided support for the concurrent validity of the scales. The DIUS and the DMUS demonstrated the strongest correlation ($r = 0.748$). This is an expectable finding, given the fact that the DMUS is modeled after the DIUS. The two scales are measuring highly overlapping constructs, so that if a participant is scoring high on the DMUS, there should be a relationship to his/her score on the DIUS.

Although the MySCAGE significantly correlated with all the scales, its strongest significant correlation was with the MASIA ($r = 0.647$). In addition, the MASIA significantly correlated with all scales measuring dysfunctional behavior (DIUS, $r = 0.486$; DMUS, $r = 0.591$; and

MySCAGE, $r = 0.647$). This relationship is important because it indicated that the higher the self-reported endorsement of feeling addicted to MySpace, the higher the participant's DMUS and MySCAGE scores.

4.6   Factor Analysis of the MySpace Questionnaire

The MySpace Questionnaire was specifically created for this study to investigate frequency of MySpace use, the types of MySpace activities participants engaged in, and the level of potential dysfunction related to the participant's MySpace use. An exploratory factor analysis was performed on 24 (out of a total 47) questions that were in Likert form. Five main factors emerged: Factor 1, Social Use of MySpace; Factor 2, Negative Feelings about MySpace Use; Factor 3, Compulsion to Use MySpace; Factor 4, Criticism Regarding MySpace Use; Factor 5, MySpace Interference With Occupational/Academic Performance. The first factor reflected a healthy aspect of MySpace use, but the remaining four factors all reflected some aspect of psychopathology or dysfunction.

The MASIA was a single item on the MySpace Questionnaire that assessed how much an individual feels addicted to MySpace. The MASIA was included in the factor analysis of MySpace Items but did not load on a single factor. Instead, the MASIA loaded .395 on Factor 3 (Compulsion to Use MySpace) and .393 on Factor 2 (Negative Feelings about MySpace Use). This suggests that subjective feelings of "Internet addiction" were related to both (a) the degree to which individuals experienced their Internet use as compulsive and (b) the degree to which they experienced negative feelings (such as guilt) concerning their Internet use.

Chapter 5: Practical Implications of the Present Study

The present findings support the conclusion that, like other pathological behavior patterns identified in the DSM-IV-TR (e.g. pathological gambling), excessive use of the Internet and/or MySpace can sometimes lead to interpersonal problems or interfere with functioning. For instance, about half of the participants in the present indicated that they had had an argument at some time with a significant other about being online (49.3%) or using MySpace (52.6%). Apparently use of the Internet and MySpace can sometimes contribute to tension in relationships. In addition, some caution must be regarded with this interpretation. The item was assessed using a double negative, which may have confused some of the English/Spanish bilingual participants in this study.

The results also showed that for nearly half (49.0%) of participants, work/school performance had declined since going on the Internet. Even more participants (64.2%) reported deterioration in work/school performance since logging onto MySpace. Once again, some caution may be appropriate in interpreting this finding, since this item was assessed using a double negative and thus may have confused some bilingual participants. Notable but less frequent were reports by some participants that they had missed class or work because of the Internet (7.0%) or MySpace (5.3%).

Some substance dependent individuals have a tendency to self-medicate, that is, to use alcohol or illegal drugs to cope with psychological discomfort. Results from the present study showed that something similar can happen with Internet use. A substantial number of participants reported using the Internet when they were feeling isolated (45.7%), or going online to feel better when they were feeling down (34.8%). Nearly a fifth of participants also reported that in the past they had unsuccessfully attempted to decrease the amount of time they spent

online (Internet: 19.5%; MySpace: 18.5%). The occurrence of such behaviors emphasizes the similarity between dysfunctional Internet use and the diagnostic criteria for Substance Dependence and Pathological Gambling in the DSM-IV-TR.

The present findings also strongly suggest that dysfunctional Internet behaviors have increased among college students during the past decade. This increase, if it is genuine, may represent a genuine emerging problem in behavioral health. Further research is recommended to examine the nature and seriousness of dysfunctional Internet behaviors.

Chapter 6: Limitations of the Present Study

There are several limitations to this study. First, all the participants were university students. Thus the results may not generalize to other populations, such as adults in their late 20s or older, or young adults who do not attend college.

 Secondly, several questionnaire items included in the present study appeared to be problematic for some participants. Most importantly, the DIUS and the DMUS included some reversed items ("I have never gotten into arguments with a significant other over being online") that tended to confuse some of the participants due to the use of a negative statement ("have never") with a "Yes" or "No," response option. It is likely that at least a few respondents responded to this item inaccurately because of confusion caused by its wording.

In addition, the Goldberg Personality Questionnaire included self-descriptive adjectives that seemed unfamiliar to some participants in the study. Some of the participants may have had a limited English vocabulary, so that they did not understand the meaning of all the words. In order to address this problem, the experimenter allowed the participants to use the Internet to look up the definitions of words on the Goldberg Questionnaire or to ask the experimenter what the words meant. However, in retrospect it might have been better if the study had used a different questionnaire with a lower reading level to measure the Big 5.

Since the time this study was run, MySpace has added another feature known as "Applications." Now individuals with MySpace accounts can participate in elaborate role-playing and trivia games (e.g. "Mafia Wars," "Name That Movie") by adding them as particular applications to their accounts. For instance, Mafia Wars is a game that allows members to recruit their MySpace friends into a "mafia family" or "mob" and battle other mafias to build an

empire. The addition of this and other new features may affect MySpace use and the findings of future studies, specifically regarding the types of activities that MySpace users engage in.

Another limitation of the present study is that some participants may not have understood the time frame for Internet use that was being assessed. Although the MySpace Questionnaire states in bold and enlarged font the time frame being assessed (usually "the past three months"), participants may not have paid attention to this. More importantly, the DIUS and DMUS do not give any indication what time frame is being inquired about. It would probably be desirable to change the instructions for the DIUS and DMUS to specify the time frame that is being assessed. For example, the instructions might ask about Internet behaviors "during the past three months" if current Internet dysfunction is being assessed, or about Internet behaviors "at any time in the past" if lifetime prevalence of Internet dysfunction is being assessed.

In addition, participants may not have understood what the item was assessing when it asked how long they were "actively" logged on MySpace. This was evidenced by the skewed range for time spent on MySpace for "last week." The question was meant to investigate how much time they engage in activities (such as blogging, leaving comments, reading messages, etc.) on MySpace not just merely log onto it.

Another limitation of the present study was its use of a retrospective, self-report question to measure the amount of time that participants spent online. Participants in this study may have had difficulty accurately estimating how much time they spent on MySpace due to errors or bias in free recall. Future studies might attempt to measure Internet use that do not depend on retrospective reports, perhaps by having participants keep daily logs of their time online.

Chapter 7: Future Directions

It would be interesting for this study to be replicated in different regions of the United States to see whether dysfunctional Internet use is generally as prevalent as observed in the present study. Due to the fact that this study involved only university students, some of whom were unemployed, future research might examine Internet use in samples of older individuals who are already in the workforce. Also, it would be interesting to have a bigger sample of participants who are parents, to get an accurate picture of decreased time spent with children because of parents' MySpace use.

A comparison of the present findings with previous research (Morahan-Martin & Schumacher, 2000; Niemz et al., 2005) suggests that the prevalence of dysfunctional Internet use among college students may have increased substantially during the past ten years. However, for reasons already discussed, it is not possible to draw firm conclusions on this issue. To explore whether dysfunctional Internet use has been on the rise, it might be beneficial to return to the same universities where earlier researchers carried out their studies and examine current levels of dysfunctional Internet use there. To explore the possibility that dysfunctional Internet use is still on the rise, it might be helpful to carry out a prospective study at one or more colleges, where prevalence of dysfunctional Internet use can be sampled on an annual basis for several years in a row.

Based on this study, the Big 5 personality traits did not seem to predict dysfunctional Internet use well. Future research should try to identify more powerful predictors other than those offered in this study. Other social variables may prove to be stronger predictors of dysfunctional Internet use. For example, one potential predictor could be the number of close friends or peers who use MySpace.

Although the present findings suggest that dysfunctional Internet behaviors are widespread, it is unclear how severe and persistent they are over time. For instance, it may be that Internet Abuse and Internet Dependence (as tentatively described earlier) may have far less serious consequences for functioning or emotional health than do Alcohol Abuse and Alcohol Dependence, Pathological Gambling, and other similar disorders. Similarly, it may be that dysfunctional Internet use tends to be transitory and time-limited, rather than a long-lasting pattern of problematic behavior. Future research should therefore examine the severity and duration of dysfunctional Internet behavior and its consequences for daily functioning and levels of subjective distress.

Another potential topic for future research is the development of new versions of the DIUS and the DMUS. As already discussed, both scales contain some items with reverse/negative wording that tend to confuse some participants. These questions should probably be rewritten so that the direction of dysfunctional endorsement is clear. Another recommendation is to expand the dichotomous answer format of the DIUS and DMUS to a 5-point Likert format. In addition to providing participants with more than a "Yes" or "No" option, the Likert format may make it easier to endorse an item if a frequency option is available. For instance, if an item asks if the individual has ever had an argument with a significant other, a participant may respond "No" in the dichotomous format. However, the individually may seldom get into arguments, which is different from not getting into any arguments at all.

Furthermore, the DIUS and DMUS could also benefit from specifying the time frame in which symptoms have occurred, for example, by stating in the directions that the questions are concerned with behaviors and feelings that have occurred "in the past three months." As the

DIUS and DMUS are currently written, it is unclear whether the dysfunctional behaviors may have occurred yesterday, three months ago, or even three years ago.

Also, when assessing time spent online, the item should be more explicit. Perhaps by stating beforehand: "The following two questions concern the amount of time you spend actively logged into MySpace -- that is, the amount of time that you personally spend at the computer, reading or interacting with MySpace."

Another possible line of research is to extend the MySpace Questionnaire. Five factors were identified within the MySpace Questionnaire. New items could be created for each factor, to create separate scales for each factor.

As a final suggestion: This study was restricted to students who had an active MySpace account. Future research may include investigating the overall level of Internet pathology among all university students, not just MySpace users. In addition, research can extend to the comparison of all social networking websites not only MySpace, but also Facebook, Hi5, and other popular social networking websites.

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Appendix A

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

PURPOSE OF THE STUDY

        I am being asked to participate in a research study that will contribute to a better understanding of college students' behavior associated with the internet and with MySpace. My participation will involve a single session that will take 45 to 60 minutes. I will not be called back for any further participation. This study has been approved by the Institutional Review Board of the University of Texas at El Paso.

PROCEDURES

        At the session I will complete a packet consisting of five paper and pencil questionnaires and a demographics sheet. The questionnaires are designed to investigate my activities on MySpace, including negative and positive impacts of MySpace on my life. If I feel anxious, uncomfortable or embarrassed about answering anything, I do not have to answer that question.

BENEFITS

        My participation will contribute to the better understanding of about Americans' experiences with the Internet. In addition, it will help investigate personality factors associated with active engagement on MySpace. I will receive one hour of experimental credit. There are no risks involved. If I decide not to participate, I can contact my Psychology professor for information on how to satisfy the research credit by other means.

CONFIDENTIALITY

        My identity in this study will be kept confidential. My questionnaire packet will be assigned an identification number that will be known only by the researchers. No other identifying information will be recorded.

QUESTIONS

        If I have any questions about this study, I may contact Linda Anderson at (915) 747-8660, Dr. James Wood at (915) 747-6570, or Lola Norton, IRB Administrator, at (915) 747-8841 or irb.orsp@utep.edu, to answer questions regarding research participants' rights.

CONSENT

Before signing this consent form, I acknowledge that the study has been explained to me. I have read the entire consent form and have spoken to the investigator or his/her representative and have had my questions answered to my satisfaction. My signature on this form indicates I voluntarily consent to participate in this study.

_____

Participant's Signature   Date

_____

Investigator's Signature   Date

Appendix B

Demographic Questionnaire

Sex: M   F

Major: _____

University Classification:
       Freshman   Sophomore   Junior   Senior

Ethnicity:
       Hispanic   African-American   Native-American
       Non-Hispanic White   Asian-American
       Other_____

Place of Birth: _____
       City   **State**   **Country**

Date of Birth: _ _ / _ _ / _ _ _ _   **Age**: _____

MySpace Questionnaire

This questionnaire asks about the activities you engage in on MySpace. Please answer the following questions as accurately as possible.

1. Approximately how much time (in hours) did you spend on MySpace?
   a. Last week? _____hours
   b. Yesterday? _____hours

2. In the last month, how many days out of the week did you typically log onto MySpace?
   _____

3. In the last month, how many days each week did you typically check your MySpace
   account before you went to work/school)?_____

4. What's the longest time you ever spent <u>actively</u> involved with MySpace, without logging
    out? _____

5. Is the MySpace website blocked at your place of employment?
   a. Yes   b. No   c. Not Employed

6. Is your MySpace profile set on "private"?
   a. Yes   If so, why? _____
   b. No   If not, why? _____

7. Is your MySpace account set up to alert your mobile phone when you receive new messages, friends
   a. Yes
   b. No

8. What do you consider to be too much time for *you* to spend on MySpace each day?
   a. 0-30 minutes
   b. 30-60 minutes
   c. 1-2 hours
   d. 2-3 hours
   e. 3-4 hours
   f. 4+ hours

9. What do you consider to be too much time for *someone else* to spend on MySpace each day?
    a. 0-30 minutes
    b. 30-60 minutes
    c. 1-2 hours
    d. 2-3 hours
    e. 3-4 hours
    f. 4+ hours

10. What are your main reasons for having a MySpace account? (Circle all that apply)
    a. Make new friends
    b. Stay in contact with friends
    c. Find old friends
    d. To be more social
    e. Stay updated with people's lives/profile
    f. Check out new music
    g. Play MySpace games
    h. Business purposes
    i. School assignments
    j. Dating
    k. Entertainment
    l. Boredom
    m. Other _____

Please answer the following questions regarding the <u>past month</u>.

In the past month, approximately how many times have you

    11. Participated in MySpace groups? _____

    12. Written blogs on MySpace? _____

    13. Read blogs on MySpace? _____

    14. Sent MySpace messages to people? _____

    15. Left MySpace comments on your friend's profiles? _____

    16. Left MySpace picture comments on your friend's profiles? _____

    17. Posted bulletins on MySpace? _____

    18. Searched for music on MySpace? _____

19. Searched for new friends on MySpace? _____

20. Arranged to meet someone in person after first meeting him or her through MySpace?
   _____

Please answer the following questions regarding your <u>overall MySpace experience in the past 3 months</u>.

21. How often have you thought that having many MySpace friends was important?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never

22. How often have you enjoyed yourself when you were logged in on MySpace?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never

23. How often have you found it easier to be open / expressive on MySpace than in other social settings?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never

24. How often have you felt more aware of local events because of MySpace?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never

25. How often have you felt you can relate to many people because of MySpace?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

26. How often have you talked about MySpace when you met new people?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

27. How often have people told you that you spend too much time on MySpace?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

28. How often has time spent with your children decreased because of MySpace?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never
    f. Don't have children

29. How often have you felt the urge to check your MySpace account whenever you were near a computer with Internet access?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

30. How often have you kept MySpace open on an extra tab or browser/window when you were using the computer?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

31. How often have you thought about MySpace when you were not logged on?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

32. How often have you felt distressed when the system was down and you could not log onto your MySpace account?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never
    f. The system has not been down in the past 3 months

33. How often have you urged people who do not have a MySpace account to create one?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never
    f. Not necessary, everyone I talk to already has a MySpace account

34. How often have you urged other people to become more active on MySpace (i.e. check their account)?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

35. How often have you felt good about positive MySpace comments that were left on your profile?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never
    f. Don't receive positive MySpace comments

36. How often have you felt negatively affected by negative MySpace comments that were left on your profile?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never
   f. Don't receive negative MySpace comments

37. How often have you been late for engagements or appointments because you continued to stay logged on MySpace?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never

38. How often have you missed out on social events because you were logged on MySpace?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never

39. In the past 3 months, have you missed class or work because you were logged on MySpace?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never

40. How often have you failed to complete your work or schoolwork because you were logged on MySpace?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never

41. How often have you gotten into trouble (or been warned) at work or school because you were logged onto MySpace?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

42. How often have people complained about your MySpace usage?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

43. How often have people annoyed you by criticizing your MySpace usage?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

44. How often have you ever felt that you should cut down on your MySpace usage?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

45. How often have you been dishonest about your MySpace usage when asked?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

46. How often have you ever felt bad or guilty about your MySpace usage?
    a. Very often
    b. Often
    c. Sometimes
    d. Seldom
    e. Never

47. How often have you felt that you were addicted to MySpace?
   a. Very often
   b. Often
   c. Sometimes
   d. Seldom
   e. Never

Please do not write in this section

Confirmed: Yes / No   Experimenter initials: _____

MySpace account was created? Month_____ Year_____

GOLDBERG PERSONALITY QUESTIONNAIRE

How Accurately Can You Describe Yourself?
Please use this list of common human traits to describe yourself as accurately as possible. Describe yourself as you see yourself at the present time, not as you wish to be in the future. Describe yourself as you are generally or typically, as compared with other persons you know of the same sex and of roughly the same age.

Before each trait, please write a number indicating how accurately that trait describes you, using the following scale:

Inaccurate					Accurate			
Extremely	Very	Quite	Slightly	Neither	Slightly	Quite	Very	Extremely
1	2	3	4	5	6	7	8	9

_____Active	_____Extraverted	_____Negligent	_____Trustful
_____Agreeable	_____Fearful	_____Nervous	_____Unadventurous
_____Anxious	_____Fretful	_____Organized	_____Uncharitable
_____Artistic	_____Generous	_____Philosophical	_____Uncooperative
_____Assertive	_____Haphazard	_____Pleasant	_____Uncreative
_____Bashful	_____Harsh	_____Practical	_____Undemanding
_____Bold	_____Helpful	_____Prompt	_____Undependable
_____Bright	_____High-strung	_____Quiet	_____Unemotional
_____Careful	_____Imaginative	_____Relaxed	_____Unenvious
_____Careless	_____Imperceptive	_____Reserved	_____Unexcitable
_____Cold	_____Imperturbable	_____Rude	_____Unimaginative
_____Complex	_____Impractical	_____Self-pitying	_____Uninquisitive
_____Conscientious	_____Inconsistent	_____Selfish	_____Unintellectual
_____Considerate	_____Inefficient	_____Shallow	_____Unintelligent
_____Cooperative	_____Inhibited	_____Shy	_____Unkind
_____Creative	_____Innovative	_____Simple	_____Unreflective
_____Daring	_____Insecure	_____Sloppy	_____Unrestrained
_____Deep	_____Intellectual	_____Steady	_____Unsophisticated
_____Demanding	_____Introspective	_____Sympathetic	_____Unsympathetic
_____Disorganized	_____Introverted	_____Systematic	_____Unsystematic
_____Distrustful	_____Irritable	_____Talkative	_____Untalkative
_____Efficient	_____Jealous	_____Temperamental	_____Verbal
_____Emotional	_____Kind	_____Thorough	_____Vigorous
_____Energetic	_____Moody	_____Timid	_____Warm
_____Envious	_____Neat	_____Touchy	_____Withdrawn

Appendix E

Internet Use Scale

This scale is used to assess the amount of individual involvement in the Internet. Please answer accurately and to the best of your knowledge.

1. I have <u>never</u> gotten into arguments with a significant other over being online. Yes / No

2. I have been told I spend too much time online.   Yes / No

3. If it has been a while since I last logged on, I find it hard to stop thinking about what will be waiting for me when I do.   Yes / No

4. My work and/or school performance has not deteriorated since I started going online. Yes / No

5. I feel guilty about the amount of time I spend online.   Yes / No

6. I have gone online to make myself feel better when I was down or anxious.   Yes / No

7. I have attempted to spend less time online but have not been able to.   Yes / No

8. I have routinely cut short on sleep to spend more time online.   Yes / No

9. I have used online to talk to others at times when I was feeling isolated.   Yes / No

10. I have missed classes or work because of online activities.   Yes / No

11. I have gotten into trouble with my employer or school because of being online. Yes / No

12. I have missed social engagements because of online activities.   Yes / No

13. I have tried to hide from others how much time I am actually online.   Yes / No

Which websites do you visit most while being online? Please list.

Appendix F

MySpace Use Scale

This scale is used to assess the amount of individual involvement in the MySpace. Please answer accurately and to the best of your knowledge.

1. I have <u>never</u> gotten into arguments with a significant other over being logged on MySpace.   Yes / No

2. I have been told I spend too much time logged on MySpace.   Yes / No

3. If it has been a while since I last logged on MySpace, I find it hard to stop thinking about what will be waiting for me when I do.   Yes / No

4. My work and/or school performance has not deteriorated since I started logging on MySpace.   Yes / No

5. I feel guilty about the amount of time I spend logged on MySpace.   Yes / No

6. I have logged onto MySpace to make myself feel better when I was down or anxious.   Yes / No

7. I have attempted to spend less time on MySpace but have not been able to.   Yes / No

8. I have routinely cut short on sleep to spend more time on MySpace.   Yes / No

9. I have used MySpace to talk to others at times when I was feeling isolated.   Yes / No

10. I have missed classes or work because of MySpace activities.   Yes / No

11. I have gotten into trouble with my employer or school because of being on MySpace.   Yes / No

12. I have missed social engagements because of MySpace activities.   Yes / No

13. I have tried to hide from others how much time I am actually on MySpace.   Yes / No

Curriculum Vitae

Linda Maria Anderson was born on July 2nd, 1982 in Aschaffenburg, Germany. She moved to El Paso, Texas when she was 14 years old. She graduated from J. M. Hanks High School located in El Paso in May 2000. She continued her education at the University of Texas at El Paso where she received a Bachelor of Arts in Psychology in May 2004. Thereafter, she pursued her Master of Arts degree in Clinical Psychology also at the University of Texas at El Paso. She completed 450 hours of internship in the Drug Abuse Program located in the Federal Correctional Institution La Tuna as well as in the Mental Health Unit, a special unit of the El Paso County Public Defender's Office. While working on her Master's Degree, she was employed at Aliviane Inc. (female residential substance abuse treatment facility) and as the Undergraduate Academic Advisor for the Psychology Department.

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