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Laura Mackie
The Who, How and Why of
Facebook Use: The Relationship
Between Level of Use and
the Big Five Personality Traits

ABSTRACT

The purpose of this quantitative study was to investigate the relationship between personality traits and level of Facebook use. It was hypothesized that certain personality characteristics such as extraversion and low levels of conscientiousness would be more strongly correlated with higher levels of Facebook use. In addition, the study explored whether agreeableness and openness were significantly correlated to use/non-use of the site as had been found in previous research. Data was collected using an online survey, which included questions regarding demographic criterion, the Big Five Personality Inventory, whether participants utilized Facebook and if so how frequently, and what their reasons were for either using or not using the site. Results demonstrated no significant relationship between any of the five personality traits and level of Facebook use; however, differences in use were found according to age and gender. These findings were similar to some of the work of past researchers, which contributes to the exploration about the nature of the interconnectedness between technology and the psychological self.

**THE WHO, HOW AND WHY OF FACEBOOK USE: THE RELATIONSHIP BETWEEN
LEVEL OF USE AND THE BIG FIVE PERSONALITY TRAITS**

Laura Mackie

Smith College School for Social Work

2012

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CHAPTER I

Introduction

The extent to which individuals in modern society rely upon technology in daily life is undeniable. Technologies, including the Internet, serve the purpose of streamlining activities, and expanding our exposure to a range of information about the greater world. It is important to examine the ways in which interaction with such technology shapes our relationship with the external world, and we must also acknowledge the interrelated nature between technology and the self. Exploring measures related to users and non-users of the website Facebook (<http://www.facebook.com>) is but one way to look more closely at such phenomena. Looking at the “who, how and why” of Facebook use can help to shed light on the interconnection between the online world and the internal world of the individual.

The following study will look at both non-users of Facebook and those who utilize the site to varying degrees. Correlated with usage levels will be measures of the *Big Five* personality characteristics (John & Srivastava, 1999). Finally, an exploration into participants’ reasoning for either using or not using the site will be included. Such information will contribute to greater understanding of the relevance of online social media in daily life, and will deepen knowledge regarding an emerging concept known as *cyberpsychology*. In a general sense this term is used to explain the study of the human mind and behavior in light of interactions between human beings and technology. Furthermore, much of the research in this realm focuses on the effects of the Internet and cyberspace on the psychology of individuals as well as groups. The

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implications of future findings may contribute to the development of this new realm of psychological understanding, and will inform the field of social work and clinicians about the ways in which social media impact social and individual spheres of being

CHAPTER II

Literature Review

Past research has approached the subject using a variety of lenses, many of which have been inspired by the expanding popularity of social media in recent years. The website Facebook.com launched in 2004, and although it was originally created for use by college students, as of March 2012 over 900 million users ranging from ages 13 and up use the site from all over the globe (*Key facts about facebook*). The social networking site allows users to create an individualized profile page on which they can post data and information about themselves. In addition; applications such as status updates, posts, the “wall”, and the interconnection with other users’ pages allows for interactions amongst users and self-expressions to occur in cyberspace.

Self-Presentation and Identity Construction

One phenomenon that has been explored is the extent to which individuals utilize online social media as a way to selectively self-present, or create an idealized identity of themselves in a public forum. Researchers such as Mehdizadeh (2010); Stefanone, Lackaff, & Rosen (2011); Gonzales & Hancock (2011); and Ong, Ang, Ho, Lim, Goh, Lee, & Chua (2011) have explored such themes. Mehdizadeh (2010), for example, explored the relationship between offline personality and online self-presentation. The study measured narcissism and self-esteem in relation to self-presentation online. The results indicated a positive correlation between both

narcissism and self-esteem measures, and the number of times participants checked the site daily, as well as the amount of time spent online per visit. In addition a significant correlation was found relative to narcissism and self-promotional content (including: main profile photo, view photos, status updates and notes). Finally there was a correlation between self-esteem and self-promotion in terms of the profile picture, and males were more likely to display self-promotion in the “about me” and “notes” sections, while females did so when choosing their main photo. Most importantly, Mehdizadeh (2010) noted that: “Identity construction has been studied as a public process that involves both ‘identity announcement’ made by the individual claiming the identity and ‘identity placement’ made by others who endorse the claimed identity” (Mehdizadeh, 2010, p. 357). This study contributes to growing understanding of who uses Facebook and the ways in which the functions of the site can reflect self-presentation and online identity construction.

Stefanone, et al. (2011) described social networking behaviors such as *promiscuous friending* and the *content creator* uses of Facebook as attributable to what they term “new media behaviors” (Stefanone, et al., 2011, p. 41). They discussed adolescent and young adults’ past exposures to “old media” (for example, reality television) and how a cultural fascination with celebrity has developed as an evolution from such media. They state: “Recall that the shift from people consuming online content to producing it was paralleled by a cultural shift toward visibility, transparency, and celebrity” (Stefanone, et al., 2011, p. 44). They connected this common behavior to the concept of Contingencies of Self-Worth (CSW), which they explained as an indicator of self-esteem. Their study found that young females posted the most photos online, and that an increase in friends and family members noted was correlated with an increased number of photos posted as well. They concluded in discussion of their findings that

self-worth is connected to one's internal motivation to create an image of the self as competent and project that to the outside world. They felt that by selecting and posting certain images, individuals were able to craft their outward appearance, which then reflected in their measurements of self-worth.

Gonzales & Hancock (2011) conducted an experiment in which individuals utilized Facebook to different degrees, while others used a "traditional" self-awareness stimulus of looking at themselves in the mirror. The researchers discussed their findings in terms of the theories of *objective self-awareness*, and the *hyperpersonal model*. In description of the objective self-awareness theory they explained: "However, people become the 'object' of [their] own consciousness when they focus attention on the self, which can have both positive and negative effects" (Gonzales & Hancock, 2011, p. 79). They found that overall Facebook use had a positive effect on self-esteem compared to looking into the mirror. They also found that while looking at one's own Facebook page had a positive effect on self-esteem, that only looking at one's own page increased self-esteem (more than freely browsing others' pages as well), and finally that the most positive effect resulted from looking only at one's own page and having the ability to edit it. In discussing the potential for an identity shift because of the use of online social media, they stated: "...online self-presentations can become integrated into how we view ourselves, especially when the presentations take place in a public, digital space" (Gonzales & Hancock, 2011, p. 80).

Ong et al. (2011) conducted a study of adolescents in Singapore in which they studied self-presentation on Facebook and how such presentation related to measures of narcissism and extraversion. The researchers found while investigating what they coded as "self-generated content" such as profile picture, and status updates rather than "system-generated content" such

as network size and photo count, that narcissism ratings were more significantly correlated with self-generated content. The results also indicated that narcissists were more likely to be extraverts, but that narcissism rather than extraversion ratings increased self-ratings of profile picture attractiveness, as well as the frequency of status updates. The researchers compared and contrasted two hypothesis: the “social-compensation hypothesis” which supposed that introverts would gain most from online social networking use because of how computer-mediated communication compensates for weaker social skills, and the “rich-get-richer” hypothesis that implied that extraverts’ already existent social skills would translate into an online format. The study’s results seem to support the latter, although limitations in the measures of the study indicate need for continued examination of this topic.

Motivations, Implications of Use

While it is helpful to understand how users may be utilizing social networking sites such as Facebook, it is also important to look at factors driving its use, and also the implications resulting from different levels of exposure/interaction with the site. Some of the authors who have included discussion in this realm include Kalpidou, Costin, & Morris (2011); Kujath (2011); Wilson, Fornasier & White (2010); Valkenburg, Peter, & Schouten (2006); Bonds-Raacke, J, & Raacke, J (2008); Ehrenberg, Juckes, White, & Walsh, (2008); Sheldon, Abad, & Hinsch (2011); and Reich (2010).

Kalpidou et al. (2011) looked at Facebook use measures such as time spent on Facebook, number of friends, and emotional as well as social connection to Facebook amongst first-year and upper-class college students. They found that increased Facebook use was negatively associated with emotional and academic adjustment for first-year students, but positively associated for adjustment as well as attachment to the institution for upper classmen. In addition

the researchers found that more time spent on Facebook was negatively related to self-esteem, and it was not the amount of time spent on Facebook, but number of Facebook “friends” which served as a stronger predictor of students’ well-being.

Kujath (2011) discussed Internet use behaviors and *computer mediated communication* (CMC) in order to examine the extent to which users of the websites Facebook and Myspace (<http://www.myspace.com>) utilized online communication as an extension to face-to-face relationships. She concluded that many consumers use more online communication in their relationships than “offline” communication. She encouraged future exploration in comparing quality of relationships offline versus online as well as a look into the effects of CMC on relationships. She noted that most often social networking behavior is geared towards maintenance of existing relationships rather than for the purpose of forming new ones.

Reich (2010), Wilson, Fornasier & White (2010), Ehrenburg et al. (2008), and Valkenburg et al. (2006) focused their research on the implications of use for youth. Reich (2010) explored whether or not websites such as Facebook and Myspace are able to provide adolescents with a psychological sense of community, and in doing so might address their developmental needs. The study looked at online activities, reasons for use, and the degree of overlap between online and offline social networks. Ultimately they determined that although Facebook might serve as a platform to support other online communities, but for the most part it promoted “networked individualism” and was used as a forum predominantly through which to maintain social connections, share experiences, and exchange resources.

Wilson, Fournasier & White (2010) explored if the characteristics within the NEO Five factor personality inventory could be used to predict Australian youths’ use of social networking sites, in addition to discovering trends about those who might exhibit addictive tendencies. They

found that conscientiousness and extraversion predicted use as well as addictive tendencies, and that lower conscientiousness and higher extraversion increased use and promoted/encouraged socialization. They discussed how low levels of conscientiousness could mean tendencies to procrastinate and utilize less self control. This was one of the few studies that mentioned variables that could lead to addiction, which is an important topic to consider in terms of implications of use.

Ehrenberg et al. (2008) looked at measures of personality and self-esteem as predictors of technology use in Australian youth. This study also discussed the possibility of addiction, but in the context of occurring as a result of reliance upon technology as a medium for communication. The researchers explored three indicators of addiction that included: experiencing withdrawal, loss of control, and salience (in terms of thoughts/behavior). Their findings about addictive tendencies concerning mobile phone and IM use are of particular import because of how each contributes to the conversation about how youth utilize communication technologies in their daily lives. This will continue to be explored in discussion of future findings.

Valkenburg et al. (2006) looked at the consequences of friend networking sites for Dutch adolescents' social self-esteem and well-being. Among variables considered, they found that feedback on one's profile had the power to influence measures of self-esteem and well-being the most. They found that self-esteem and well-being were greatly related, and that while positive feedback could enhance these measures, negative feedback could also decrease them. They discussed the importance of such feedback in light of how vulnerable adolescents can be while forming a greater sense of self. They described *imaginative audience behavior* as common amongst youth because of how

they tend to overestimate the extent to which others are watching and evaluating and, as a result, can be extremely preoccupied with how they appear in the eyes of others. On friend networking sites, interpersonal feedback is often publicly available to all members of the site. Such public evaluations are particularly likely to affect the development of adolescents' social self-esteem" (Valkenburg, et al., 2006, p. 585).

The work of Bonds-Raacke, J, & Raacke, J (2010) is one of the few studies to explicitly investigate both dimensions and gratifications for users of friend networking sites. They divided dimensions of use into three domains: the information domain, the friendship domain, and the connection domain. Participants rated reasons for use, which were classified as belonging under the three dimensions of use. These included: to post social functions, to learn about events, to share information about yourself, for academic purposes, to post/look at photos (the information dimension component); to keep in touch with old friends, to keep in touch with current friends, to locate old friends (the friendship dimension component); for dating purposes, to make new friends, and to feel more connected (the connection dimension component). While they found statistical loadings of 21.97%, 43.93% and 63.24% for the three dimensions respectively, differences amongst genders occurred. In particular males were significantly more likely to use the site for dating purposes, to share information about themselves, and had more "friends" linked to their accounts. Women were found to be more likely to set their profiles to private. One limitation acknowledged about the study was that the sample size was somewhat small ($n=201$) and only included first year-college students.

Sheldon et al. (2011) conducted a study in which the researchers controlled differences in use patterns in order to determine how use was impacted by components such as psychological needs, behavioral motives, and coping mechanisms. Interestingly, they found that use was

reflective of two different processes; one that leads users to report more feeling of connection, and one that results in reports of a sense of disconnection. It is through the feeling of disconnection that the researchers felt that Facebook became used as a coping strategy, and that those feeling connection were receiving positive feedback from the site, which further encouraged use. The researchers came to these conclusions based on findings of multiple experiments within the larger study. Their first experiment found that measures of Facebook use simultaneously correlated with measures of both connection and disconnection. In order to find an explanation for the two contrasting processes, they conducted studies in which they restricted use and studied the impact on levels of connection. Based on the behaviors and measures of participants before and after this process (where some found connection, others disconnection), the researchers discussed potential motivations and reinforcements provided by the experience with Facebook.

Attributes of Self

As past research discussed thus far has focused on the “how” and the “why” of Facebook use, it may also be important to explore the parameters of “who” is most likely to use the site. The conceptualization of “who” (both users and non-users of Facebook) can be defined using many different frameworks, beginning from identifying demographic criteria, to borrowing from psychological theories of personality and the self. Past researchers have focused on various aspects of the above and will be discussed as they have contributed to current understandings and how they influenced the perspective of the current study. One interesting area of focus has investigated traits of narcissism and self-esteem in relation to Facebook use. Researchers such as Acar (2008) and Buffardi & Campbell (2008) included such concepts in their studies.

Acar (2008) included several variables when studying which factors might both precede as well as result from online social networking behavior. In this study, 451 college students' offline and online social networks were explored in consideration of themes such as self-esteem, personality, body image, and anxiety. Statistical analysis found that the average offline social network size was 125, while online was 217, and that one's social network size was significantly related to measures of self-esteem and extraversion. Females were found to have larger networks, and to spend more time on the site, and interestingly there was no relationship found between online network size and self-esteem, body image, or anxiety.

Buffardi & Campbell (2008) focused on indicators of narcissism on social networking sites. They explored not only how narcissism might present itself in this realm, but also how others would be able to perceive it in someone else. Their prediction was that narcissistic individuals would use social networking sites because of the idea that "First, narcissists function well in the context of shallow (as opposed to emotionally deep and committed) relationships" and that

Past research shows that narcissists, for example, are boastful and eager to talk about themselves (Buss & Chiodo, 1991), gain esteem from public glory (Wallace & Baumeister, 2002), are prevalent on reality television (Young & Pinsky, 2006), and enjoy looking at themselves on videotape and in the mirror (Robins & John, 1997). Personal Web pages should present a similar opportunity for self-promotion (as cited in Buffardi & Campbell, 2008, p. 1304).

Buffardi and Campbell's (2008) experiment explored degrees of social activity online as well as self-promoting content. The first stage of the study was to have participant users self-report about their narcissism overall, and then the content of the user's profile page was coded.

Next, strangers to the users viewed their profiles and rated their perception of the users' narcissism. The researchers found perceptions of narcissism to be influenced by amount of social interactions online, self-presentation as indicated in the main profile photo, and the degree of main photo attractiveness rated.

The Big Five Personality Traits

While the connection between social networking and narcissism has been a popular area for study, some researchers have explored additional measures of the self and personality. Personality variables such as the *Big Five* have been a focus of some studies exploring the internal worlds of social media and Facebook users. John & Srivastava (1999) described the history behind creation of the five factor personality model, and the many forms it has taken over time. In essence, a lexical analysis of descriptive terms in the English language was used in order to create a common language amongst those exploring personality. A grouping of traits was created after discovering trends in the language. After studying many differing levels of classification, the five factor model was created to reflect categories which could represent broader stable character traits within individuals. The current taxonomy being used includes the constructs of extraversion, agreeableness, conscientiousness, neuroticism and openness.

John & Srivastava (1999) described the five traits as follows:

...Extraversion implies an *energetic approach* to the social and material world and includes traits such as sociability, activity, assertiveness, and positive emotionality.

Agreeableness contrasts a *prosocial and communal orientation* toward others with antagonism and includes traits such as altruism, tender-mindedness, trust, and modesty.

Conscientiousness describes *socially prescribed impulse control* that facilitates task- and goal-directed behavior, such as thinking before acting, delaying gratification, following

norms and rules, and planning, organizing, and prioritizing tasks. Neuroticism contrasts emotional stability and even-temperedness with negative emotionality such as feeling anxious, nervous, sad, and tense. Finally, Openness to Experience (versus closed-mindedness) describes the breadth, depth, originality, and complexity of an individual's *mental and experiential* life (John & Srivastava, 1999, p. 121).

Landers & Lounsbury (2006) looked at the *Big Five* and *narrow* personality traits in relation to general Internet use. They found a negative relationship between the characteristics of agreeableness, conscientiousness, and extraversion as well as between the narrow traits of optimism and work drive, and Internet use. They found a positive relationship between tough-mindedness and Internet activity, and noted the importance of looking at such variables in consideration of more specific forms of Internet use.

In one of the few studies to explore use vs. non-use amongst individuals from a spectrum of society. Ryan & Xenos (2011) recruited 1,324 Internet users from Australia to explore the relationship between users and non-users of Facebook and the Big Five personality traits as well as shyness, narcissism, and loneliness. When comparing users and non-users, they found that extraverts were more likely to use the site than were introverts. They also found users to have higher levels of overall narcissism, exhibitionism, and leadership. Regarding loneliness, Ryan & Xenos found that non-users had higher levels of loneliness in the subcategory of social loneliness. However they found that Facebook users had higher levels of family loneliness, and that the lonely users were more likely to spend time utilizing specific passive Facebook applications. In light of this, the researchers expressed the need for continued development of theory in relation to the implications and gratifications of Facebook use.

Ultimately, the larger questions remain: What is the nature of the interconnection between the self and use of Facebook? Is it who we are that shapes our use, or use (of Facebook) that shapes who we are? We can continue to explore correlations in such realms to come closer to an understanding of the ways in which who we are can be related to certain behaviors. Finally, our motivations and the rewards/results we receive from our interactions using the website can help us to understand yet another layer of the process of use. It is hoped that the current study's findings can further enhance understanding of those who either use or don't use Facebook. Such an understanding may lay a foundation for future explorations.

The research questions will continue to be discussed in the context of previous research and how that has influenced the formation of the current study. The empirical results of the study will be a format through which continued discussion of such themes can highlight understanding of the complexities of the importance of technologies for human beings.

Chapter III

Methodology

The current study aimed to address questions concerning use and non-use of the website Facebook. The resulting statistical evidence and theoretical discussion will further highlight issues connected with the previous researchers' work and inform future explorations about the concepts themselves and their applicability in clinical work. Although the concepts can be operationalized in many ways, this researcher chose to use the Big Five Inventory as a measurement of self, which was correlated with measures of levels of use and reasons listed for either choosing to use or not use the site.

The research question therefore addressed the following: "Are there correlations between measures of the Big Five personality traits and level of use and non-use of Facebook? What do users and non-users describe as reasons for use/non-use?" The first hypothesis predicted that certain personality characteristics such as *extraversion* and *low levels of conscientiousness* would be more strongly correlated with higher levels of Facebook use. In addition, the study explored whether agreeableness and openness were significantly correlated to use/non-use as may have been implied by the findings in the work of Landers & Lounsbury (2006).

Because the intent was to try to uncover whether there is a relationship between use and personality traits, the research design chosen was a quantitative exploratory method. Correlations were particularly helpful in facilitating continuing conversations about the interconnectivity of the self and technology, when causation could not be quantified. Using an anonymous online

survey method for data collection was both practical and fitting in light of the subject matter of the study. For convenience, participants were recruited via snowball sampling. The initial round of recruitment included the researcher sending messages to acquaintances via email and through the message and posting functions on Facebook. In both forums the link to the online survey was provided, as well as the contact information for the researcher, should the respondents have any questions or concerns. In addition to computer-mediated communications such as email and Facebook, Craigslist and other Internet groups were utilized in order to reach a wider range of participants. The standardized message sent to all included the request that individuals consider participation in the survey, as well as to pass the invitation along to others.

Approval for the research design and study was given after review by the Smith College School for Social Work Human Subjects Review Committee (Appendix A). Risks and benefits of participation were evaluated according to the ethical principles and guidelines for the protection of human subjects of research. It was determined that minimal risks were imposed upon participants beyond levels of introspection about personality and behavior.

Sample

Snowball sampling was used as a feasible means to recruit a larger number of participants for the study. Initially, the desired minimum number of twenty participants in each of the “frequent user,” “occasional user” and “non-user” groups was set. Inclusion criteria required that participants were to be above the age of 18, utilized computers and the Internet, and were proficient in English. A variety of individuals from different racial and ethnic groups, ages, and geographic backgrounds were also desired. Sampling biases such as self-selection and accessibility may have resulted due to limitations involved in the recruitment process design, and some of those will be made evident in the report/discussion of the sample demographics.

Data Collection

Qualifying participants were directed to go to the SurveyMonkey survey website, where they were first asked screening questions to determine eligibility for participation. If they met study inclusion criteria, they were provided informed consent information, and asked to agree to participation. The survey included questions to gather basic demographic information (age, gender, race/ethnicity, geographic location), measures of the Big Five personality traits, indication of either non-use or level of use of Facebook, and reasons that individuals either chose to utilize the site or not (Appendix B). Personality characteristics were measured using the Big Five Inventory created by John, Donahue, & Kentle, (1991). On the website <http://www.ocf.berkeley.edu/~johnlab/bfi.htm>, the measure's authors indicated that permission for use of the instrument was not necessary if being used for research rather than commercial purposes. After consideration of various options of personality measures, the profession's recognition and common use of the Big Five characteristics drove this researcher to choose the Big Five Inventory partly due to reasons of accessibility. The reliability and validity involved with this measure was needed in light of a study where other aspects were in the exploratory realm.

Instrument

It must be acknowledged that although this study could have been approached through several different means, this researcher was invested at looking at the qualities of the subjects through a particular psychological lens, inspired by experiences in the profession of clinical social work. Although personality characteristics are but one aspect of what psychology defines as the self, it is important to embrace this as sufficiently describing an important quality of the

participants, as this has provided but one means through which a theoretical discussion of the findings of the study could occur.

Chapter IV

Findings

The research questions were the following: “Are there correlations between measures of the Big Five personality traits and level of Facebook use? What do those who use the site and non-users describe as reasons for use/non-use?” My first hypothesis predicted that certain personality characteristics such as extraversion and low levels of conscientiousness would be positively correlated with higher levels of Facebook use. In addition, I explored whether agreeableness and openness were correlated to use/non-use of Facebook.

The major finding was that there were no statistically significant correlations found between measures of the Big Five personality traits and level of use of Facebook. This was explored according to varying categorizations of level of use, but no significant relationship was found in each analysis. In looking at specific traits such as extraversion and conscientiousness, no significant correlations were found between these characteristics and level of Facebook use as had been predicted in the first hypothesis. Unlike the work of Landers & Lounsbury (2006), neither agreeableness nor openness were significantly correlated to use/non-use; however, there was a positive correlation found between age and openness ($r=.210$, $p=.011$, two-tailed) which was not related to Facebook use.

A t-test analysis comparing the groups that used Facebook and those who did not found the following when comparing use level according to the five personality traits: extraversion $t(88.23)=.000$, $p=1.0$, agreeableness $t(72.510)=-.369$, $p= .713$, Conscientiousness $t(72.73)=-.152$,

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p=.880, Neuroticism $t(70.14)=-1.2$, $p=.236$, and openness $t(74.05)=-.41$, $p=.686$ (Table 1). While these results did not yield significant findings, the average extraversion score was higher for those who used Facebook, as was neuroticism. Conscientiousness, agreeableness, and openness were found to have higher scores for those in the category that did not use Facebook. Interpretations of such will be included in the following discussion.

Table 1.

The Five Personality Traits Between Facebook users and Non-users

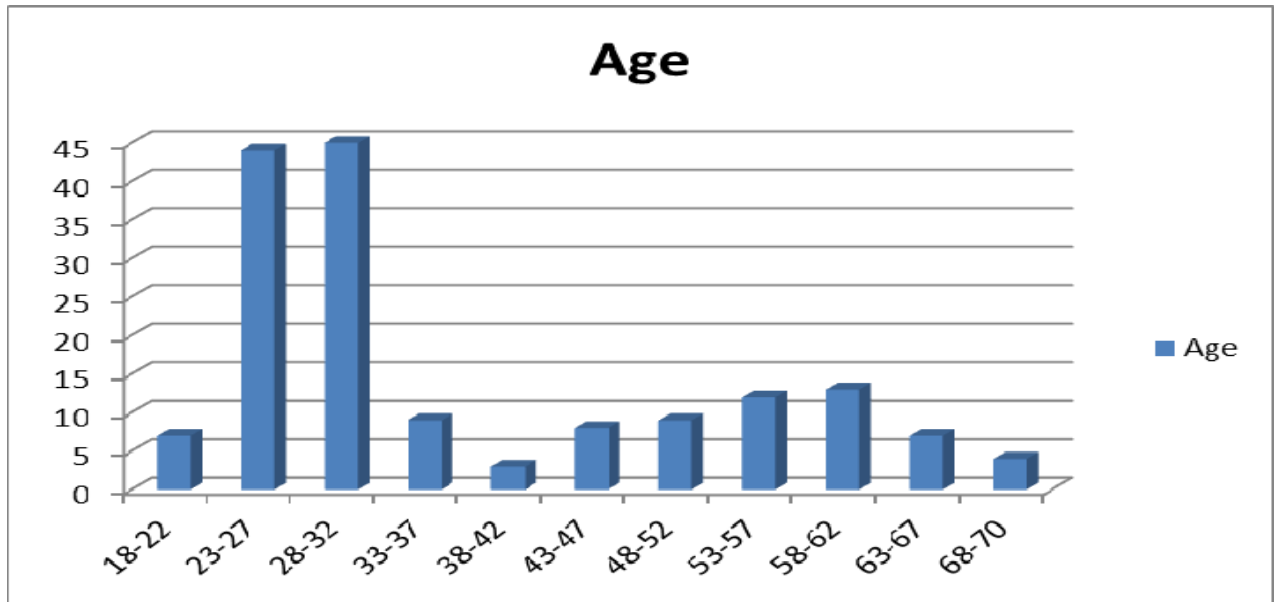
	Facebook Users		Non-Facebook Users		<i>df</i>	<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Extraversion	3.3819	.72255	3.3750	.81394	88.230	.000
Agreeableness	3.7222	.56756	3.9418	.70415	72.512	.369
Conscientiousness	3.6922	.59332	3.7884	.69380	72.726	-.152
Neuroticism	2.9137	.69937	2.6310	.80959	70.140	-1.195
Openness	3.7786	.63644	3.8619	.54724	74.053	.406

* $p < .05$

A total of one hundred forty-seven participants completed the survey in its entirety, and fifteen more participants withdrew before completion. The participants' ages ranged from 18 to 70 years of age, with a mean age of 37.35 and a median age of 30. As can be seen in figure one above, the distribution of age included two spikes between ages twenty-three and thirty-two, and fifty-three and sixty-two. While this phenomenon will be explored in the discussion section, it is important to note that about sixty percent of participants were under the age of 32.

Demographics of Participants

Figure 1.



When looking at gender, those identifying as female accounted for 70.2% of the participants ($n=113$), while 29.8 percent ($n=48$) identified as male (figure 2).

Figure 2.

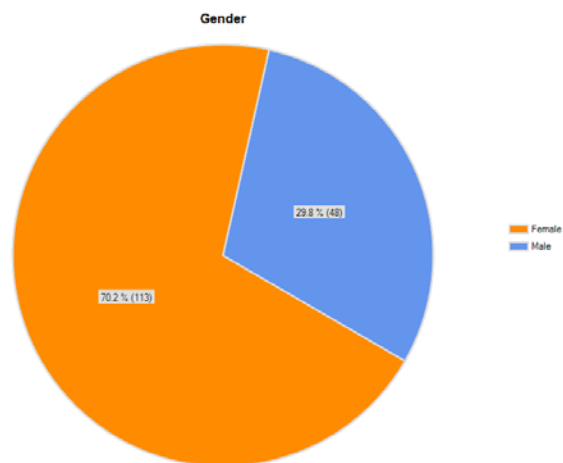
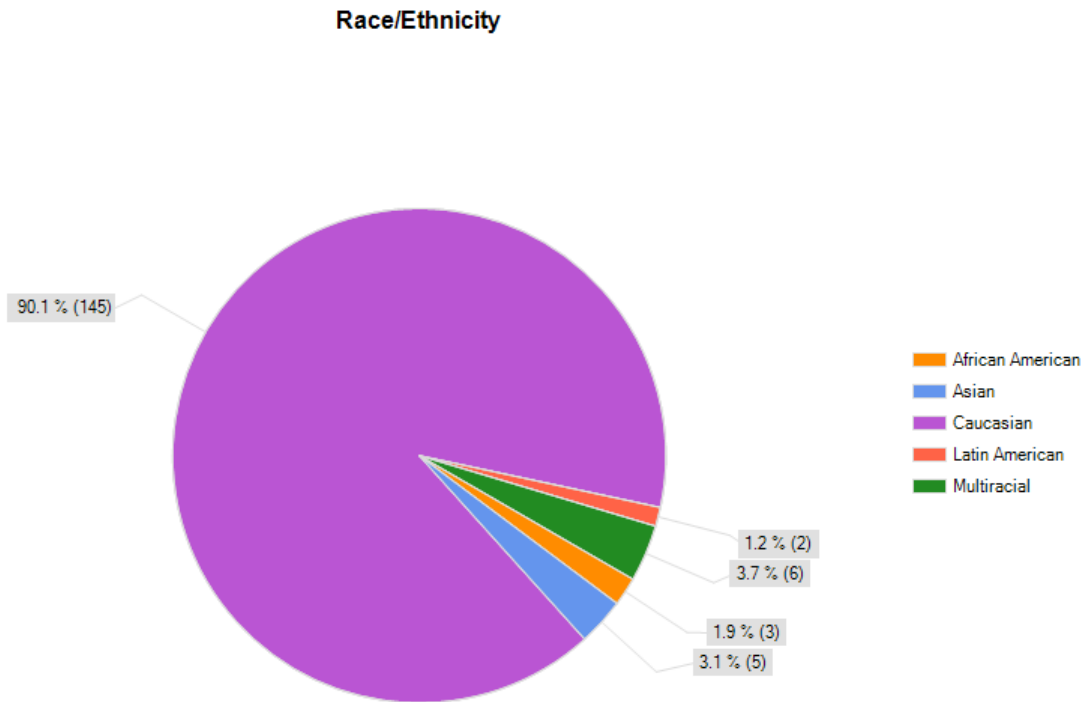


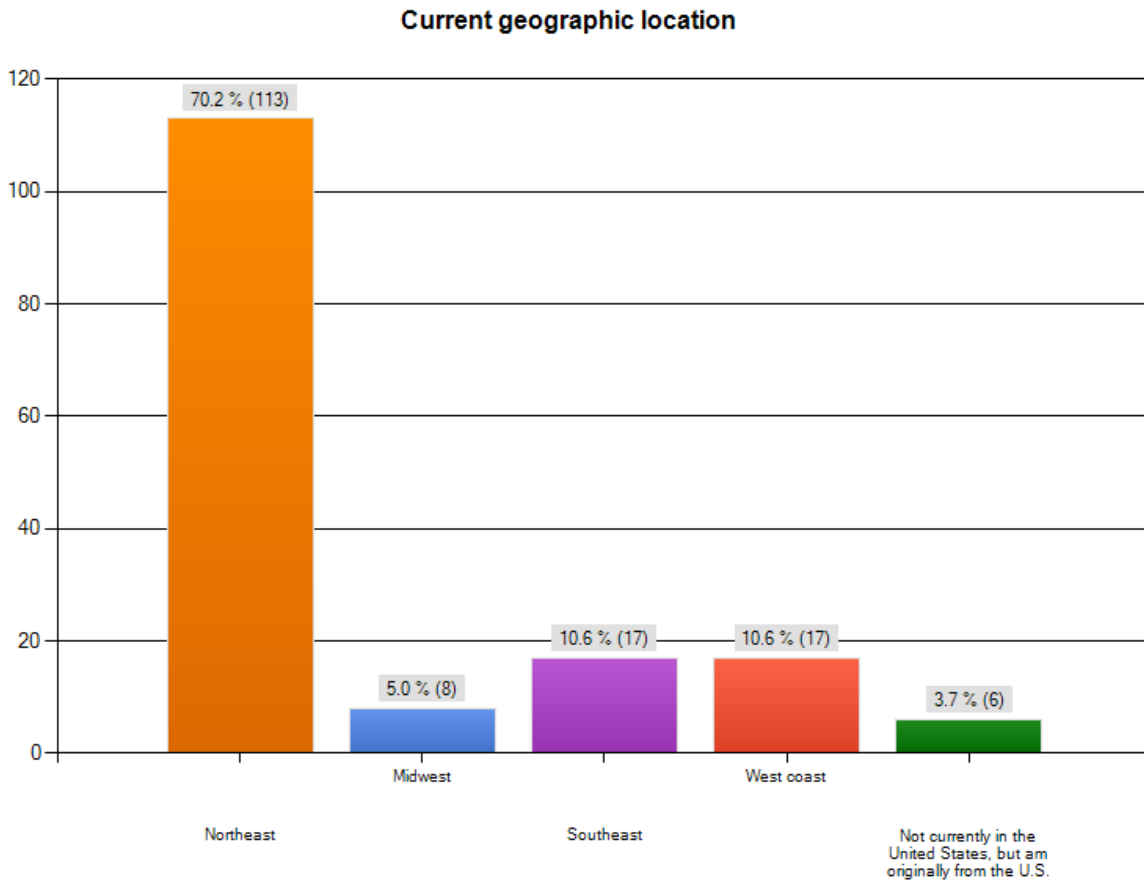
Figure three below shows the following was reported when participants were asked their race/ethnicity: 90.1% ($n=145$) identified as Caucasian; 3.7% ($n=60$) Multiracial, 3.1% ($n=5$) Asian, 1.9% ($n=3$) African American; 1.2% ($n=2$) Latin American; and 8 additional participants indicated identifying with other groups including: Middle Eastern, Not Applicable, Jewish, Native American, Puerto Rican, Asian/Latina and White.

Figure 3.



The majority of participants (70.2 %, $n=113$) were located in the Northeastern region of the United States, while 10.6% ($n=6$) were located each in the Southeast and West Coast. Five percent ($n=8$) were from the Midwest, and 3.7% ($n=6$) were originally from the United States but not currently residing in it at the time of the study.

Figure 4.



When looking at the sample group as a whole according to the five personality traits, the mean scores were the following (out of a five point scale): extraversion was 3.3810, agreeableness (3.7536), conscientiousness (3.7060), neuroticism (2.8733), and openness (3.7905). In the discussion chapter, this researcher will consider comparison of such findings to the general population.

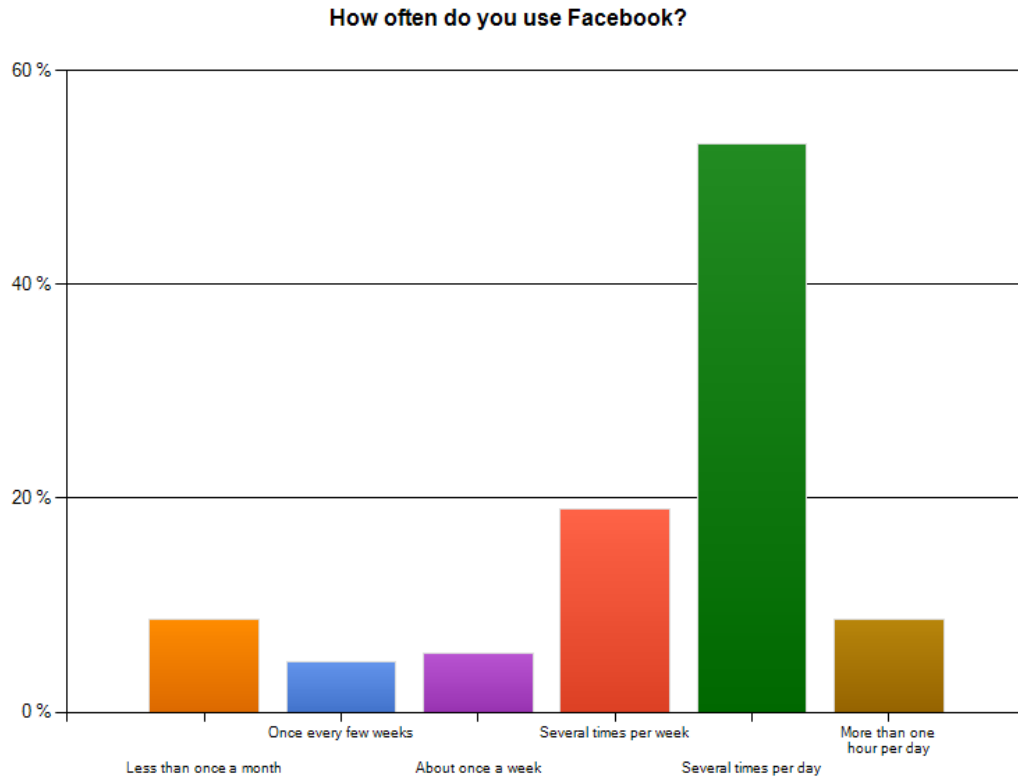
Table 2.

The Big Five Personality Traits

	Mean	Median	SD	Variance	Min. Value	Max. Value
Extraversion	3.3810	3.5000	.73331	.538	1.75	5.00
Agreeableness	3.7536	3.7778	.59132	.350	2.00	5.00
Conscientiousness	3.7060	3.6667	.60702	.368	2.22	5.00
Neuroticism	2.8733	2.8750	.72000	.518	1.00	4.50
Openness	3.7905	3.8000	.62344	.389	1.50	4.90

In total, 85.7% ($n=126$) of the participants indicated having a Facebook account at some point, and 14.3% ($n=21$) have never had an account. Of those who have had an account, level of use included: “Less than once a month” (8.7%, $n=11$), “Once every few weeks” (4.8%, $n=6$), “About once a week” (5.6%, $n=7$), “Several times per week” (19%, $n=24$), “Several times per day” (53.2%, $n=67$), and “More than one hour per day” (8.7%, $n=11$). Together, those who used Facebook several times per day or more composed more than sixty percent of the sample group.

Figure 5.



Participants who did not use Facebook were able to choose from among multiple responses to describe their reasons for not using it. In addition, they were given the option to include reasons not listed. Those who did not have a Facebook account reported the following as reasons for not using the site: “I engage with the people I want to offline--face-to-face, via telephone, letters” (95%, $n=19$), “I prefer other electronic communications--email, Myspace, twitter” (55%, $n=11$), “I don't understand what to use Facebook for” (30%, $n=6$), and “I have access to the type of information available on Facebook through other means” (0%, $n=0$). Other reasons included themes such as they viewed Facebook as a waste of time, something fake or insincere, and concerns about privacy.

Those who have had a Facebook account were also given multiple choices to describe reasons for use and their responses included: “To keep in touch with old friends” (88.1%, $n=111$), “To keep in touch with current friends” (82.5%, $n=104$), “To make new friends” (7.1%, $n=9$), “To feel connected” (51.6%, $n=65$), “To post about events” (36.5%, $n=46$), “To learn about events” (51.6%, $n=65$), “To share information about your life” (40.5%, $n=51$), “To post or look at photos” (73.8%, $n=93$), “Professional/academic networking” (19%, $n=24$), “To procrastinate” (42.1%, $n=53$), “Because I’m bored” (49.2%, $n=62$), “To play games” (18.3%, $n=23$), “To keep up with special interests: music, companies, articles” (20.6%, $n=26$), “To “like” things” (9.5%, $n=12$), and “To see what other people are into (special interests, “like” feature)” (23.8%, $n=30$). Other reasons indicated included entertainment, keeping in touch with children/family members, to share and keep up with news and politics, to receive coupons and discounts, “everybody has a Facebook”, to be in touch with those who don’t use email anymore, and to see what people are “tagging” them in.

After reviewing the initial findings, this researcher next explored whether there were differences in levels of Facebook use according to age and gender. This was done in order to continue exploration into the traits of individuals that may have a relationship with level of Facebook use. The relationships amongst such characteristics were the next step of what the researcher used in hopes of continuing to illuminate the connection between the “who” and the “how” of Facebook use. Looking at the relationship of use patterns and gender was inspired by the previous work such as that of Medizadeh (2010), Acar (2008) and Bonds-Raacke, J & Raacke, J (2010). A Chi Square analysis found a significant difference by gender according to three levels of Facebook use ($df=2$, $n=146$)= 7.312 , $p=.026$). The three levels in this case were “never to every few weeks”, “once to several times per week” and “several or more times per

LEVEL OF FACEBOOK USE AND THE BIG FIVE

day”. The female participants indicated use at 19.2%, 22.1%, and 58.7%, respectively. In contrast, the male participants’ use was distributed more evenly amongst the higher and lower ends of the use spectrum with 40.5%, 19%, and 40.5%.

Table 3.

Chi Square Analysis: Gender and Facebook Use in Three Levels

		Facebook_3 Groups			Total	
			Never through every few weeks	Once to several times per week	Several or more times per day	
Gender	Female	Count	20	23	61	104
		% within Gender	19.2%	22.1%	58.7%	100.0%
		% within facebook_3groups	54.1%	74.2%	78.2%	71.2%
	Male	Count	17	8	17	42
		% within Gender	40.5%	19.0%	40.5%	100.0%
			45.9%	25.8%	21.8%	28.8%
Total	Count	37	31	78	146	
	% within Gender	25.3%	21.2%	53.4%	100.0%	
	% within facebook_3groups	100.0%	100.0%	100.0%	100.0%	

T-test analysis found a difference in the mean age of participants according to two levels of use ($t(69.85)=5.276, p=.000$) (Table 4). The mean age of “never to once per week” users was found to be 45.89 years while the “more than once per week” group averaged at 33.06 years.

Table 4.

T-test: Age and Facebook use in Two Levels

	Level of Use	N	Mean	Standard Deviation	Standard Error Mean
Age	Never to once per week	44	45.89	14.154	2.134
	More than once per week	102	33.06	11.773	1.166

A one-way analysis of variance (Anova) also found a significant difference in age by groups ($F(2,143)=16.51, p=.000.$) (Table 5).

Table 5.

Analysis of Variance: Age and Facebook use in Three Levels

Age					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5191.411	2	2595.706	16.511	.000
Within Groups	22480.760	143	157.208		
Total	27672.171	145			

A Tamhane post hoc test found a significant difference between age such that the “never to every few weeks” group had a mean age of 46.05 years and the “several or more times per day group” had a mean age of 31.86 years. The implications of such findings will continue to be explored in the discussion section.

LEVEL OF FACEBOOK USE AND THE BIG FIVE

Table 6.

Tamhane post hoc: Facebook use in Three Levels

					95% Confidence Level	
Facebook Use Level	Facebook Use Level	Mean Difference (I-J)	Std. Error	Sig	Lower Bound	Upper Bound
Never to Every few weeks	Once to Several times per week	7.280	3.569	.131	-1.48	16.04
	Several or more times per day	14.195*	2.574	.000	7.86	20.53
Once to Several times per week	Never to Every few weeks	-7.280	3.569	.131	-16.04	1.48
	Several or more times per day	6.915	2.993	.076	-.53	14.36
Several or more times per day	Never to Every few weeks	-14.195*	2.574	.000	-20.53	-7.86
	Once to Several times per week	-6.915	2.993	.076	-14.36	.53

Chapter V

Discussion and Conclusion

The purpose of the present study was to examine the relationship between personality traits and level of Facebook use. Similar to the work of Ross et al. (2009), there were no significant correlations found between the Big Five Personality traits and the level of use. As Ross et al. (2009) suggested, perhaps

...personality defined by the Five-Factor approach may be too broad and not be the best way to understand specific Internet behaviors. For example, it may be that other more specific personality characteristics not defined by the Five-Factor Model such as narcissism or other traits such as shyness (e.g., Orr et al., in press) are more influential in activities related to Facebook use” (Ross et al., 2009, 582).

It is also possible that, as Butcher, Graham, and Ben-Porath (1995) highlighted, small effect sizes pose methodological challenges in personality research, particularly when convenience sampling is used (as cited in Ross et al., 2009, p. 581). As this researcher utilized convenience sampling to recruit participants, it is possible that a major challenge to the findings is that the study participants were those most similar to the researcher and thus there was a limitation in both diversity and representativeness of the general population.

Facebook Use Levels and Personality Traits

In looking at the trends despite statistical significance, it is worthy to note that there were some differences in mean scores for the personality traits according to level of Facebook use.

While extraversion and neuroticism were slightly higher in those individuals with Facebook accounts in comparison to those without, conscientiousness, agreeableness, and openness were lower. These findings are interesting in that they reflect some of the trends found in previous literature. As previously noted, Ryan & Xenos (2011) had found that extraverts were more likely to use social networking than introverts. Wilson, Fornasier, & White (2010) had found a similar trend between extraversion and use of Facebook, but had also found that conscientiousness was negatively correlated with use. This finding inspired the study's second question, as Wilson had discussed that the combination of higher levels of extraversion and lower levels of conscientiousness may further enhance one's tendency towards socialization and exhibiting less self-control. As many users had indicated reasons for use including procrastination and boredom as well as social connection, it would be worth continuing to explore the influence of these traits on use patterns and how users interact with the site. The finding that agreeableness and openness were lower in those who did not have a Facebook account differed somewhat with the findings of Landers and Lounsbury (2006). The spectrum of relationship between personality traits and Facebook use perhaps suggests that which was discussed by Ross (2009) above. Continuing to explore such in larger samples reflective of the general population is all the more important in order to understand the reliability of correlating personality traits with Facebook use.

Differences in Use According to Gender

Similar to the findings of past researchers, the present study found differences in level of Facebook use according to gender. Medizadeh (2010), for example, had found differences in use and how males and females differed in their displays of self-esteem and narcissism through specific Facebook functions. While Medizadeh had found a correlation between both self-esteem and narcissism and self-promotional content, this was seen for females in the choosing of

their main profile photo, and for males in their “about me” and “note” sections. Acar (2008) had found in general that females were more likely to have larger networks and to spend more time online. (In addition, they found that network size was positively related to self-esteem and extraversion.) Finally, Bonds-Raacke, J & Raacke, J (2010) found that among first-year college students, males were more likely to use social networking for dating and sharing info about oneself. In addition, they found that males had more friends linked to their accounts, and that females were more likely to set their profiles to private. This highlights the significance of continuing to explore how different groups utilize the specific functions of the site in differing ways. While it may be possible to theorize that higher levels of use for females could be related to the idea that women maintain larger social networks and are socialized to communicate most, it would be important to continue to study the trends about use in order to further determine possible reasons for this phenomenon.

In general it was interesting to see the difference in distribution over the levels of use according to gender (Table 3). The idea that the male users were evenly distributed between the higher and lower end of the use spectrum, but that almost sixty percent of females used the site “several times or more per day” was quite fascinating. Those who were using the site most often therefore may have been the female users.

Differences in Use According to Age

The differences found according to age and levels of use are interesting, but perhaps not so surprising. As Facebook originated as a way to connect college students and was initially only available to approved institutions, the younger age spike found in the sample group is of the generation that first had access to Facebook during their college experience. Their initiation to the site therefore was more immediate and catered to their experience. As Facebook is also a

technology and phenomena that has spread over time, it is understandable that younger generations may embrace it quicker since they are more likely to feel comfortable embracing new technologies. Other reasons for the spikes in the two age groups may be that the researcher is twenty-eight and thus has many acquaintances in this age range.

The spikes in age may also be because one of the initial rounds of emails was sent to the researchers' colleagues and thus may be those who were represented in the second age spike. This trend therefore may be more demonstrative of the researcher's social network rather than being generalizable. In addition, the finding between age and openness may be because many of the individuals from the higher end of the age spectrum were from the mental health profession. Again, this may represent a trend specific to the current sample group rather than reflecting phenomena on a larger scale. Interestingly, however, there has been discussion as to whether the Big Five personality traits remain stable over time. When attempting to compare the current study's findings to those of a more general population sample, the data were difficult to find. Srivastava, John, Gosling, & Potter (2003) did conduct a study exploring the five personality traits across the lifespan, and discussed the idea of plasticity in personality over time. While they published the measures they found in relation to age, at the time of this writing an accepted "norm" for measures in the general population does not exist.

Of importance to note, however, is that due to the complexity of obtaining permission to study human subjects under age 18, individuals between the ages of thirteen and seventeen were omitted from inclusion in the present, as well as many other studies. This demographic is a significant portion of the population utilizing technologies such as social networking sites. The average age of users identified in this sample was therefore similar to those studied in the Pew Internet and American Life Project (2011). The researchers of that project described:

In this Pew Internet sample, 79% of American adults said they used the Internet and nearly half of adults (47%), or 59% of Internet users, say they use at least one of SNS (*social networking sites*). This is close to double the 26% of adults (34% of Internet users) who used a SNS in 2008. Among other things, this means the average age of adult-SNS users has shifted from 33 in 2008 to 38 in 2010. Over half of all adult SNS users are now over the age of 35. Some 56% of SNS users now are female (Hampton, Sessions, Goulet, Rainie & Purcell, 2011, p. 3).

While the findings of the current study reflect similar trends amongst age and gender as well as engagement with social media (i.e. Facebook), it is important to recognize that these statistics are not recognizing a very important part of the population of social network users, which may have impacted the current findings. In addition, although many studies have focused on college-aged populations in the United States, according to statistics from Facebook, approximately 80% of the 900 million plus active monthly users are located outside of the United States and Canada. (*Key facts about Facebook*).

Another concept proposed by Ross et al. (2009) is that of computer-mediated-communication knowledge which is strongly influenced by accessibility to particular technologies. A limitation of the present study may have been that the recruitment efforts were designed with underlying assumptions about access to the survey, which may have restricted the scope of reaching those from a wider population who may have been eligible for the study.

While the limitations of the sample size, and recruitment type have been discussed, it is also significant to note the relative lack of diversity found in the categories of gender, race/ethnicity and geography. Hargittai (2007) conducted a study exploring differences in use patterns among several social networking sites. That study found that predictors of use of specific sites could be related to factors such as gender, race and ethnicity, and parental educational background, and in addition that

access to the Internet as well as experience and ability to be autonomous with use influenced individual's behaviors. The idea that different groups may be engaging with different sites should continue to be explored. This was one of the few studies discussing trends of use in light of factors such as race and ethnicity. While this researcher desired more diversity in the sample population of the current study, unfortunately this did not occur.

Implications for Clinical Practice

As this researcher has mentioned throughout the study, it is important to embrace the significance of Facebook in many individuals' daily lives. As more than half of the study participants with an account indicated that they utilize the site several times or more per day, it is significant for clinicians to understand the degree of interaction with the site, and the ways in which users are using the site not only to engage with others, but perhaps to an extent with themselves as well. As many researchers have discussed the interconnection between narcissism and self-esteem in relation to Facebook use, it is very important for those in the mental health field to be aware of the potential rewards/benefits/implications of use.

The understanding that the field of communication itself is also evolving as a result of interaction with technology informs our ability to understand how concepts such as self-expression and human relationships on Facebook are changing and should continue to be explored and questioned. For those working with adolescents and college-aged populations, it may be all that more important to understand the scope of things such as identity development, social norms and even possibly addiction occurring in relation to Facebook use. As Kalpidou (2011) had discovered, for example, emotional and academic adjustment to college-life was reflected in relation to Facebook use amongst first and fourth-year college females.

One very important initiative has resulted due to an unfortunate trend identified regarding individuals utilizing Facebook to communicate suicidality. According to an article by

Curry (2012) Facebook and some other Internet companies are developing measures to support users in need. In collaboration with suicide prevention specialists, they have developed processes through which users and their connections can report concerns and receive help. One feature, for example, allows users to chat online with an expert for support. This is but one way that understanding technology use behavior can and should be used to inform interventions with vulnerable populations.

Future Studies

The significance of what occurs when technology meets the self and then is used for other means has a huge range of possibilities for future research. It seems that rather than looking at Facebook use in general, perhaps researchers should hone in more on specific behaviors of Facebook use to begin to understand more defined nuances about how individuals use the site. It would also be fascinating to further explore the motivations behind such use, and the more specific traits defining the individuals that may drive behaviors. Such information may provide greater understanding and have therapeutic implications that will serve mental health clinicians. For example, informed by research, mental health clinicians may come to better understand for whom Facebook may be beneficial or harmful, and how it could enhance or hinder factors such as self-esteem and social connection. On a larger scale we can ponder: Does motivation drive the behavior or desire to restrict use, or rather does the anticipated end result? Is the result social connection, or does the website foster a self-serving purpose? Is it really about connecting socially with others, or is it about affecting the way we feel about and make sense of ourselves? Exploration of such in future studies will contribute enormously to the continued growth of *cyberpsychology* as an emerging discipline.

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Appendix A



School for Social Work
Smith College
Northampton, Massachusetts 01063

March 8, 2012

Laura Mackie

Dear Laura,

Very nice job and you clearly put a great deal of thought into the changes. Your project is now officially approved by the Human Subjects Review Committee.

Please note the following requirements:

Consent Forms: All subjects should be given a copy of the consent form.

Maintaining Data: You must retain all data and other documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

I can't wait to see what you find! Best of luck with your project!

Sincerely,

A handwritten signature in black ink that reads 'David L. Burton'. The signature is written in a cursive style with a long horizontal line extending from the end.

David L. Burton, M.S.W., Ph.D.
Chair, Human Subjects Review Committee

CC: Michael Murphy, Research Advisor

Appendix B

***1. Are you 18 years of age or older?**

Yes

No

***2. Do you use computers and the internet?**

Yes

No

***3. Are you fluent in English?**

Yes

No

LEVEL OF FACEBOOK USE AND THE BIG FIVE

Dear Participant,

My name is Laura Mackie and I am a graduate student at Smith College School for Social Work. I am conducting a study comparing those who use and do not use the website Facebook. I will also be comparing this in relation to measurements of personality factors. Previous studies have collected information about college-age Facebook users, but few have compared those who use the site and those who do not in a wider population of the United States. Your participation in this survey could contribute to greater understanding of the ways in which psychology and technology meet in the modern age. The data collected in this study will be reported in my MSW thesis and possible publication or presentation.

If you agree to participate, you will complete an anonymous online survey that will take no more than twenty-minutes. Involvement in this study requires that you be at least 18 years of age or older, currently reside or have resided in the United States, be fluent in English, and be able to use the Internet. Your help is needed whether you do or do not use Facebook or other social media sites.

Your participation in the study is voluntary. You may choose not to answer any questions, and the survey can be left incomplete and un-submitted at any time prior to submission. You may exit the survey without submitting it and all your responses will be eliminated. After you complete and submit your survey, it cannot be withdrawn but your information will remain anonymous.

Potential risks of participating for you would include general discomfort that may result after being asked about your online behaviors and how you think or feel about yourself. Any such discomfort is likely to be minimal. I cannot offer you compensation for your participation, but I thank you for your contribution to my work.

Because of the nature of the online survey and the encryption process the survey website uses, your anonymity will be ensured. Only I as the researcher, my thesis advisors, and the Smith College data analyst will have access to the encrypted data, and none of us will have any information about your identity. Demographic information provided will only be utilized in describing trends amongst the groups, and any further information will be disguised using coding as necessary. Data from the surveys will be kept secure for three years as required by Federal guidelines, after which point they will be destroyed.

If you should have any concerns about your rights or about any aspects of the study, please contact me at lmackie@smith.edu or call the Chair of the Smith College School for Social Work Human Subjects Review Committee at (413) 585-7974.

BY CHECKING "I AGREE" YOU ARE INDICATING THAT YOU HAVE READ AND UNDERSTAND THE INFORMATION ABOVE AND THAT YOU HAVE HAD AN OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.

THANK YOU!

Please print or save a copy of this letter for your records

***4. Do you agree to participate in the study?**

- I Agree (Yes)
- I decline participation (No)

***5. Age**

***6. Gender**

Female

Male

Other (please specify)

***7. Race/Ethnicity**

African American

Asian

Caucasian

Latin American

Multiracial

Other (please specify)

***8. Current geographic location**

Northeast

Midwest

Southeast

West coast

Not currently in the United States, but am originally from the U.S.

Big Five Inventory

Directions: The following statements concern your perception about yourself in a variety of situations. Your task is to indicate the strength of your agreement with each statement, utilizing a scale in which 1 denotes strong disagreement, 5 denotes strong agreement, and 2, 3, and 4 represent intermediate judgments. In the boxes after each statement, click a number from 1 to 5 from the following scale:

1. Strongly disagree
2. Disagree
3. Neither disagree nor agree
4. Agree
5. Strongly agree

***9. I see myself as someone who...**

	1.Strongly disagree	2.Disagree	3.Neither disagree nor agree	4.Agree	5.Strongly Agree
1)...Is talkative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2)...Tends to find fault with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3)...Does a thorough job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4)...Is depressed, blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5)...Is original, comes up with new Ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6)...Is reserved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7)...Is helpful and unselfish with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8)...Can be somewhat careless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9)...Is relaxed, handles stress well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10)...Is curious about many different things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11)...Is full of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12)...Starts quarrels with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13)...Is a reliable worker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14)...Can be tense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15)...Is ingenious, a deep thinker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16)...Generates a lot of enthusiasm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17)...Has a forgiving nature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18)...Tends to be disorganized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19)...Worries a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20)...Has an active imagination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21)...Tends to be quiet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22)...Is generally trusting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

LEVEL OF FACEBOOK USE AND THE BIG FIVE

23)...Tends to be lazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24)...Is emotionally stable, not easily upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25)...Is inventive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26)...Has an assertive personality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27)...Can be cold and aloof	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28)...Perseveres until the task is finished	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29)...Can be moody	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30)...Values artistic, aesthetic experiences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31)...Is sometimes shy, inhibited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32)...Is considerate and kind to almost everyone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33)...Does things efficiently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34)...Remains calm in tense situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35)...Prefers work that is routine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36)...Is outgoing, sociable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37)...Is sometimes rude to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38)...Makes plans and follows through with them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39)...Gets nervous easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40)...Likes to reflect, play with ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41)...Has few artistic interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42)...Likes to cooperate with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43)...Is easily distracted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44)...Is sophisticated in art, music, or literature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45)...Is politically liberal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

***10. Do you currently or have you ever had an account with the website Facebook? (<http://www.facebook.com>)**

- Yes
- No

***11. Reasons for not using Facebook (please click all that apply)**

- I engage with the people I want to offline - face-to-face, via telephone, letters
- I prefer other electronic communications- email, myspace, twitter
- I don't understand what to use Facebook for
- I have access to the type of information available on Facebook through other means

Other (please specify)

***12. How often do you use Facebook?**

- Less than once a month
- Once every few weeks
- About once a week
- Several times per week
- Several times per day
- More than one hour per day

***13. What are your reasons for using Facebook? (please click all that apply)**

- To keep in touch with old friends
- To keep in touch with current friends
- To make new friends
- To feel connected
- To post about events
- To learn about events
- To share information about your life
- To post or look at photos
- Professional/academic networking
- To procrastinate
- Because I'm bored
- To play games
- To keep up with special interests: music, companies, articles
- To "like" things
- To see what other people are into (special interests, "like" feature)

Other (please specify)

Thank you for your participation.

