THESIS

PERSONALITY TRAITS AND THEIR EFFECT ON FACEBOOK USER HABITS

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ABSTRACT

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A survey, conducted in cooperation with faculty and staff at Colorado State University, was conducted with CSU undergraduates (n = 125) to explore how personality traits affect Facebook use and levels of self-disclosure among users. The intent was to explain why individuals partake in certain activities, and at what levels they engage in self-disclosure on Facebook based on their personality traits and gender. This study employed the Big Five Personality Test and the Narcissistic Personality Inventory in the first part of a survey to test the levels of the personality traits narcissism, extroversion, openness to experience, conscientiousness, agreeableness, and neuroticism. The second half of the survey asked a variety of questions listed as scaled items concerning Facebook activities having to do with self-disclosure, and at what levels the participants engage in each activity.

While the personality traits observed were unable to predict the participants' motivations for Facebook use and levels of self-disclosure in a statistically significant manner, this study confirmed that gender was a significant predictor of whether females or males engage in a certain activity more often, and at what level. These results were used to re-examine recommendations from past theoretical literature about how to predict Facebook behavior based on personality traits.

ACKNOWLEDGEMENTS

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CHAPTER 1: INTRODUCTION

Social media has become a major venue for information distribution and consumption. According to communication technology entrepreneur Jaron Lanier, social media thrives on self-promotion as a means to market to individuals rather than groups. The phase of the internet we currently reside in, known as Web 2.0, is dependent upon a very user-centric experience rather than a more holistic one, encouraging users to self-express and self-promote, ultimately to be marketed to at an individual level (2011).

Sites like Facebook allow the user to create a personalized Web page all about him or herself, their activities, and interests, allowing a consolidation of all of their interests by "liking" certain products and brands, as well as to promote themselves by updating about their current life situations. Therefore, I have made a personal observation that individual traits and dispositions ultimately have an effect on Facebook habits.

In a study analyzing 85 Narcissism Personality Inventory (NPI-40) scores between 1982 and 2006, college students' narcissism scores significantly increased by about two narcissistic answers (Twenge, Konrath, Foster, Campbell, & Bushman, 2008). A follow-up study from 2010 discovered more increases in narcissism among college students through 2008, though the increase in later years was not quite as steep as it was in the 1990s (Ronay & Hippel, 2010). These observations are motivation for conducting this study, with the idea in mind that social media, specifically Facebook, may be used as a vehicle for these increasing levels of narcissistic tendencies.

The problem explored in this study involves how Facebook users' possession of certain personality traits will influence their behavior on Facebook, especially concerning self-

disclosure. The traits I am focusing on include narcissism and the "Big Five" (openness, conscientiousness, extroversion, agreeableness, and neuroticism). By measuring these traits within participants, I intend to determine how personality traits in individual users influence Facebook use.

There is much speculation that Facebook encourages a very self-centered means of communication. This may create an environment that fosters narcissism. According to the study by Buffardi & Campbell (2008), narcissistic traits are measured substantially higher among today's youth than ever before. Because of the interactivity available within today's media, it is worth exploring how an individual's traits may contribute to their Facebook habits. By measuring the traits included in the "Big Five," we are also gaining a more in depth look into what traits influence levels of self-disclosure besides narcissism. The results of this study can advance our understanding of public communication on Facebook, and direct future research.

Possible benefits resulting from this research includes what personality traits among narcissism and the "Big Five" influences levels of self-disclosure, as well as gender, and time spent away from Facebook.

This study functions to explain how the traits of Facebook users are related to their Facebook habits. The independent variables (personality traits) may ultimately serve to explain how individuals might possess more or less of a certain trait, influencing behavior on Facebook (dependent variables).

CHAPTER 2: LITERATURE REVIEW

Self-disclosure

Self-disclosure on Facebook is unique to other methods of interaction. Due to the fact that users are connected virtually, as well as face-to-face in many cases, implications for disclosure are immediate (Hollenbaugh & Ferris, 2013). Self-disclosure is an imperative element of relationship development and maintenance (Altman & Taylor, 1973). According to research by the Pew Internet and American Life Project (Smith, 2011), these adults say that they utilize Facebook in order to stay in contact with current friends and family, and reconnect with old friends. Based on Facebook's mission statement: "To make the world more open and connected," (Facebook.com, 2013, para. 1), the format encourages self-disclosure in its users by being open to presenting their inner thoughts and emotional states (Mazer, Murphy, & Simonds 2007).

Unique to social media, especially Facebook, individuals are more likely to engage in self-disclosure (and at higher levels) when the personal risk or cost in doing so is low (Andrare, Kaltcheva, & Weitz, 2002). It has also been shown that the heightened levels of self-disclosure is a method in which Facebook users can compensate for the environment being largely textual (Walther, 1992). The depth of information disclosed is also taken into account with the lack of nonverbal cues, causing an increase of intimate information to be disclosed by the user (Walther, 1996).

Motives for Facebook use, as they relate to self-disclosure, are often linked to an individual's real-world communication experiences. In one study concerning Facebook and self-disclosure by Special and Li-Barber (2012), it was shown that those who used Facebook for an entertainment outlet tended to disclose more information. Those that were even more prone to

disclosure used Facebook primarily as a means to pass time (Special & Li-Barber, 2012). Individuals who felt that they could disclose their "true selves" online were more likely to utilize Facebook to establish new relationships, as well as to maintain romantic relationships (Tosun, 2012). It is important to take into account predictor variables such as personality traits, sociological variables, and demographics which could lead to having an impact on self-disclosure on Facebook.

Personality Traits

Personality traits as they relate to Facebook self-disclosure have been measured via the "Big Five" personality traits scale. These are neuroticism, agreeableness, openness, conscientiousness, and extroversion (John, Donahue, & Kentle, 1991). Relating the "Big Five" to Facebook, Ross, Orr, Sisic, Arseneault, Simmering, & Orr, (2009) found that those participants displaying higher levels of extroversion were more likely to join Facebook groups. Those that were highly open indicated a need to be more open on Facebook. Participants low in neuroticism shared more photos, while those that were highly neurotic frequented the Wall function (2009). Another study on Australian Facebook users revealed that Facebook users in general are more likely to be extroverted and narcissistic than those who do not use Facebook. The study showed that those scoring high on exhibitionism preferred to share photos and partake in status updates, while those who were more neurotic preferred the Wall function (Ross et al., 2009).

In another study, levels of neuroticism and extroversion with internet use were observed. It was shown that those high in neuroticism were emotionally unstable, anxious, and insecure (Hamburg, 2007). These individuals identified with their true self through the Internet. Those high in extroversion identified their true selves with face-to-face interaction. Thus, the internet can be used as a tool to escape social anxiety and discomfort (Peter & Valkenburg, 2006). When

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individuals are high in agreeableness, they will compromise in order to maintain a harmonious relationship (Hamburg, 2007). These individuals may exhibit more friends through friend requests because they often comply, whereas those high in extroversion likely will have less friends due to their need to state their opinions, rather than accepting others' (Hamburg, 2007).

Narcissism

Narcissism is a personality trait associated with a view of the self that tends to be unrealistically positive, and highly inflated. Narcissists are described as attention-seeking exhibitionists who are chronically preoccupied with their physical appearance (Vazirel, Naumann, Rentfrow, & Gosling, 2008). In addition, they generally tend to believe that they are unique and special in comparison to others (Leung, 2013).

Twenge links narcissism in the U.S. with the consumerist society, which is at an all-time high. In an individualistic culture, there exists a great amount of economic freedom, but with that is a great deal of pressure to remain hyper-independent. The focus on the self can actually increase levels of anxiety, leading to loneliness and isolation. With the pressure to remain as independent as possible, there is little energy left to focus on anyone else. There remains high expectations from childhood to be "anything you want" and "have everything you want." This is actually a difficult obstacle, and can create anxiety to live up to. Facebook becomes a means of security in an increasingly isolated world. A vicious cycle develops as individuals resort to narcissism to relieve these pressures, which create insecurity in turn. In an online environment, this is magnified (2003).

Research from Bergman, Fearrington, Davenport, and Bergman (2011) supports the idea that narcissism can be identified by comparing Facebook friends to amount people the user actually knows in real life. Based off of this, the authors speculate that this act of self-regulation

is reason to suspect that social networking sites (SNS) will increase narcissism. They further elaborate that as the self-promoting nature of the narcissist is represented in Facebook culture, these platforms will essentially activate and encourage narcissism amongst other users (2011). In other words, SNS cause narcissistic behavior to catch-on and become hip.

It is to be emphasized that narcissism is a type of personality that individuals may possess to a varying degree. Other traits associated with narcissism are a strong focus on the self, feelings of entitlement, as well as a general disregard for others. This contributes to the narcissist's inability to maintain deep relationships. Narcissistic tendencies will often result in a low interest in forming and maintaining close, interpersonal relationships. Most relationships that the narcissist engages in are to fuel his or her narcissistic tendencies by reinforcing positive views of the self via the other person in the relationship (Campbell & Foster, 2007). His or her main motivation in the relationship is whatever will be of benefit to them personally, foregoing how their actions may harm or benefit others. A seemingly meaningful relationship may exist for a period of time, long enough for the narcissist to exploit the relationship and harvest it's benefits (Campbell & Foster, 2007). As narcissists alienate others due to a lack of empathy (Paulhus, 1998), they will often do so with a view of superiority to their relationship partner. This is a display of low commitment levels (Campbell & Foster, 2002), and a continual search for new partners, especially "trophy" partners, resulting in a temporary elevation in esteem (Campbell, Foster, & Finkel, 2002).

Social networking exemplifies a relatively new phenomena for individuals to display, exaggerate, and disclose their personality traits like never before. Self-reported personality traits tend to be good predictors of how users will utilize SNS, which are presented via personal profiles (Correa, Hinsley, & de uniga, 2010). As we can plainly see, the personality trait of

narcissism fits nicely with the services offered by SNS, especially through Facebook: 1) Being able to build either a public, or semi-public profile. 2) Selectively connecting with other users in which some sort of a connection is shared. 3) Observing and keeping track of those in which the user is connected to, and likewise the other way around (boyd & Ellison, 2007). In order to maintain narcissistic tendencies, individuals must seek out methods to regularly allow themselves to feel important, special, and successful (Bergman et al., 2011).

Facebook is the ideal outlet for the narcissist to obtain this quick fix. The self-regulation of traits, abilities, beliefs, strategies, behavior, and emotions of the narcissist symbiotically predict and reinforce each other (Campbell & Foster, 2007). Foundational of this personality maintenance is a complex combination of relationship management and identity construction (Ong, Ang, Ho, Lim, Gog, & Lee, 2011). Again, Facebook is a very useful tool in successfully achieving this maintenance through full control of self-presentation.

Facebook provides the narcissist with an ideal venue because of a full control of self-presentation. Narcissists thrive on superficial relationships since their ability to upkeep a meaningful relationship means that they must forgo their narcissistic tendencies. For this reason, Facebook allows the narcissist to build a large network of shallow "friendships," of which he or she is not obligated to maintain (Ong et al., 2010). These are known as "weak ties": connections to others that give the narcissist evaluative input, but are lacking in emotional closeness (Granovetter, 1982). Narcissists are motivated to have as many "friends" as possible, and generally have more friends on Facebook than non-narcissists (Bergman, Fearrington, Davenport & Bergman, 2011; Buffardi & Campbell, 2008).

Users' levels of extroversion has repeatedly shown to be the most prominent and important trait in determining the usage of SNS (Correa et al., 2010). Narcissists are often

associated with displaying the personality trait of extroversion, but this does not make the two traits mutually exclusive (Vazire et al., 2008).

Measuring levels of narcissism is accomplished by using a model known as the Narcissistic Personality Inventory (NPI). This 223-item inventory has been refined to include three specific categories: Leadership/Authority, Grandiose Exhibitionism, and Entitlement/Exploitativeness. Leadership/Authority is a narcissistic quality usually associated with positive tendencies (Ackerman, Witt, Donnellan, Trzesniewski, Robins, & Kashy, 2011) so we will only look at Grandiose Exhibitionism and Entitlement/Exploitativeness as they relate to Facebook use.

Grandiose Exhibitionism (GE) includes self-absorption, vanity, superiority, and exhibitionism. Individuals with high levels of GE experience optimal satisfaction when they are the center of attention. They will often say things for the purpose of shocking and may inappropriately self-disclose for the sake of not being ignored. Any attention is good attention for the narcissist high in GE (Ackerman et al., 2011). As these individuals wish to gain as large an audience as possible, they will likely have an unrealistically high friend count. Since their main draw to Facebook is a broad audience and not socially interacting with existing friends, they will be prone to accepting friend requests from people they do not know. Attention is sought by those displaying GE by frequently updating statuses, posting pictures, and changing profile pictures (Carpenter, 2014).

Narcissists with high level of Entitlement/Exploitativeness (EE) are not content to settle with mere attention seeking. Those possessing EE have a need to sense of entitled respect, and are willing to manipulate others as a means for themselves. They are also lacking in empathy towards the needs of others. These individuals tend to be anti-social, and expect social support

and respect from others without reciprocating. (Ackerman et al., 2011). The main reason that someone exhibiting EE would pay attention to the statuses of those in their network would be determine what is being said about them to the level that their sense of self-worth feels they deserve (Carpenter, 2013). Those who are high in EE have a tendency to become aggressive if they feel disrespected (Bushman & Baumeister, 1998; Twenge & Campbell, 2003). On Facebook, this is seen when individuals high in EE become angry when they feel others do not pay ample attention to their status updates (Carpenter, 2013).

Media attention has linked self-presentation on social media with narcissism, which is a dispositional trait. A recent cross-temporal meta-analysis found that narcissism levels in American college students have risen over the previous two decades. This rise in social media and it's accessibility/opportunity for self-promotion greatly contributes to the ability for narcissists to promote themselves, although the steady increase of narcissistic tendencies in adolescents had existed prior to the mass adoption of social media and it's associated technology (Twenge, Konrath, Foster, Campbell, & Bushman, 2008).

Distinguishing narcissism on Facebook from general exhibitionists, the latter tends to be more attracted to the platform as a means to merely show affection, vent negative feelings, and gain recognition. In contract, narcissists will proclaim their views of superiority. It may be easy to confuse narcissism with a need for recognition, but the narcissist on Facebook is driven more by a need for cognition. Recognition is insignificant to the narcissist as they already view themselves as inherently unique and special. Rather, as individuals with a self-avowed disposition for leadership, their recognition is generated by the self from feelings of superiority to others (Dewall, Maner, Deckman, & Rouby, 2011).

Related to self-esteem, narcissistic techniques can be useful for those with low self-esteem on Facebook, although they may not be true narcissists, although mistaken as such. These individuals may possess a desired self that they have not been able to achieve in the offline world for one reason or another, and can "gate" their undesirable features on Facebook. SNS, especially Facebook, provides an ideal place for these types of users to compensate for the quality that they might be lacking in a face-to-face environment (Zhao, Grasmuck, & Martin, 2008). This is exemplified most potently with users' profile pictures, where the highest amount of self-enhancement is present to cover up/hide undesirable features and physical flaws (Mehdizadeh, 2010).

Hyperpersonal Model

The Hyperpersonal Model is a concept that suggests that through computer mediated communication (CMC), users are allowed a heightened self-presentation and interaction amongst a supposed similarity of users. Through these means, greater levels of intimacy between users are obtained than would be through face-to-face communication. Through CMC, messages are vastly easier to manipulate, and information may be self-censored to protect and maintain the desired image of the user. Delivery of cues between users is also manipulated to achieve a similar goal of image crafting. The Internet has afforded the Facebook user with the tools to "selectively self-present," emphasizing certain details. (Walther, 1996). The Hyperpersonal Model ties directly into the indulgence of narcissistic tendencies online, and is arguably the main method for narcissists to craft their manipulated image.

University students comprise a bulk of Facebook users, 90% of whom have a Facebook account (Cheung, Chiu, & Lee, 2010; Kirkorian, Pempek, Murphy, Schmidt, & Anderson, 2009). Psychological factors largely associated with narcissistic Facebook use includes more time spent

interacting socially online, as well as posting a more than average amount of information about the self while also checking their accounts more frequently. Narcissistic users are more prone to express themselves by posting photos and joining groups than they are by disclosing information in the "About Me" function of Facebook. Making more positive representations of the self through photos (show) as opposed to text in the "About Me" feature (tell) represents an acknowledgment from the user that they are attempting to conceal undesirable narcissistic tendencies (Zhao, Grasmuck, & Martin, 2008). It has also been revealed from a study of college students test by the NPI-40 that those who rated higher on the scale were more likely to present themselves in a self-enhancing manner via external feature (physical attractiveness) than internal features (intelligence) (Collins & Stukas, 2008).

Impression management

By constructing a Facebook profile, users are engaging in impression management (Walther, Van Der Heide, Hamel, & Shulman, 2009) in which the user actively works to create, maintain, and modify an image that reflects the idea self (Gonzales & Hancock, 2008). An online self is created to fulfill a sense of presence as well as to maintain connections with others (Lampe, Ellison, & Steinfield, 2007). This environment also allows users to conceal physical perfections, and construct an idealized version of the self (Rafaeli, Raban, & Kalman, 2005).

Warranting theory provides a good model in viewing impression management through social networks. A warrant is online information that creates a perceived link between the online and offline self, or any personal information shared online that can be used to judge what a person is like (Walther & Parks, 2002). While users may attempt to enhance their crafted image, friends of the user can keep the user in check. Friends of users have been surveyed to see how

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closely profiles hold up offline characteristics. These friends generally report slight

enhancements in the Facebook profile versus offline identities (Vazire & Gosling, 2004).

There are three main components of warranting theory: warrant credibility, the perceived

value of a warrant, and warrant diagnosity. 1) Warrant credibility is affected by the perceived

norms of a particular community. This is not limited to the online world. Communities that exist

in social networking establish a communal common ground with established norms and practices

(Ellison, Hancock, & Toma, 2012). These community members can recognize when certain cues

link to the offline self than others. 2) The perceived value of a warrant says that others rely upon

certain cues to to judge user personality (Walther, Van Der Heide, Kim, Westerman, & Tong,

2008). On Facebook, this includes status updates, wall posts, and descriptions of personal

interest. 3) Warrant diagnosticity is the predictive value of a warrant. This indicates how closely

a warrant is related to a user's offline persona.

The Web, and especially social media, is a relatively new phenomenon. There are

comparisons to be made of online versus offline interaction. Face-to-face interaction occurs in

real-time, and includes behavior that is often not thought out extensively, but is spontaneous.

Online, users can spend hours purposefully constructing a particular impression, based on self-

presentational behavior (Toma, Hancock, & Ellison, 2008). Maintaining publicity of one's

identity, possibly due to the likelihood of future interactions, is an important factor in impression

management. Knowing that one's online persona will seep into the offline persona will motivate

individuals to manage their impressions more carefully (Leary, 1996). Research has shown that

individuals are concerned with the company they keep in formation of impressions as well. The

level of perceived attractiveness of one's Facebook friends is related to the profile owner's

physical and social attractiveness. This research also shows that the more Facebook friends a

user has, the more attractive they are perceived to be. This research concluded that a particular Facebook identity is socially desirable, yet difficult to obtain offline (Walther, 2008).

Goals are a major motivator in human behavior. Human action tends to be goal-directed while human cognition is shaped by goal-directed behavior (Berger, 2002). There are certain goals that may be seen in Facebook behavior. One of these is an interaction goal, which focuses on a desire to gain attention, emotional support, and social comparison (Dillard, 1990).

In dealing with social appropriateness, we can see how Facebook users attempt to adhere to norms to maintain a status. These high self-monitors are conscious of what others do and think of them, and are adept at keeping their identities in flux in order to adapt to social situations (Daly, 2002). This sensitivity to social awareness allows high self-monitors to change their perceived image to suit their impression goals (Snyder, 1987).

Machiavellianism is a character trait often encountered on Facebook. This is when people manipulate and fabricate their persona in order to maintain a certain impression of themselves (Christie & Geis, 1970; Leary, 1996). Those displaying high levels machiavellianism also display high levels of self-orientation and assimilation.

The need for self-presentation has been defined as one factor in motivating Facebook users of continued utilization of the SNS. Self-presentation on Facebook is a need of continuous impression management. With this idea of impression management in mind, the narcissistic user will refine an idealized representation of the self, as opposed to promoting an accurate depiction through his or her profile (Nadkarni & Hofmann, 2011). Self-presentation was tested on undergraduates at a Midwestern university in which the intended image conveyed by subjects and its relation to socially inappropriate material posted (i.e. information considered sexually appealing, wild, and/or offensive by nature) were compared. Based on the study, it was found

that those posting inappropriate material were doing so to present an image intended to impress their peers (Peluchette & Karl, 2010).

Profile pictures are generated by the owner of a Facebook profile, and are of significance because they represent the most widely seen depiction of that individual, thus making it the most important means of self-representation. These flattering images are shown when a search is done of the user, and alongside any comment or wall posting made by the user (Buffardi &Campbell, 2008; Siibak, 2009; Strano, 2008). Being that this is the case, most profile photos depict the user in an optimal way, and often conceal physical flaws (Walther, 2007). Photos can be taken in a preferable light, filtered, certain body parts may be hidden from view, or a flattering photo can be self-taken with the intention of presenting it as the profile picture (affectionately dubbed the "selfie").

By measuring narcissism as a predictor for profile picture selection, gender differences have been taken into consideration in a variety of studies. Women are most often concerned about attractive looks, whereas men wish to be portrayed as active and fun loving (Strano, 2008).

The frequency of a user to change the profile picture and cover photo can be related to the impermanent and predetermined image that the narcissist wishes to convey. The "mirror of the machine" is a concept which states that users long to see themselves as the identity they have constructed (Turkle, 1995). They want to be seen by others as their Facebook selves, resulting in the progressive confirmation of the idealized self (Zdanow, 2013).

Photos are not the ideal medium for one to display levels of power or intelligence. So, the narcissist will carefully select images which will highlight their attractiveness, personality, and connections to others. Since the narcissist has an inflated view of the self, it makes sense that he or she will display overtly flattering photos as a means to obtain admiration (Kapidzic, 2013).

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The same can be said of their representations of personalities through images, since the narcissist also hold the view that they are unique and more interesting than others (Paulhus, 1998).

Interestingly, a content analysis of Facebook profiles in revealed that the images crafted for the Facebook persona are done so while keeping in mind what is socially desirable. Users aspire to attain these identities in the offline world, but in most cases have failed to do so for a variety of reasons (Zhao, Grasmuck, & Martin, 2008).

Affinity Seeking

Affinity seeking on deals with an individual's need to be accepted and included. Regardless of the level of awareness present in online identity construction, affinity seeking remains ever present on Facebook to one degree or another (Leary, 1996). There is an inherent need in people to be liked and accepted, so they will various affinity seeking strategies will be used to achieve this (Rubin, Rubin, & Martin, 1993). Self-presentation tactics as well as impression management are examples of this, in an effort to make a desired impression on an audience.

Social Identity and Online Groups

The social identity framework supports the idea that group identification is very effective at influencing the self-concept, attitudes, and behaviors of individuals. The group is relied upon by the individual to complement and reinforce their own identities (Brown, 2000). Categorizing oneself into a specific group helps the individual to describe themselves and their crafted identity depending on their group memberships, whether that be an in-group or out-group. When in-group or out-group membership is firm, individuals will resort to self-stereotyping in favor of the in-group social category. Individuals will generally focus on similarities to the in-group and difference for the out-group (Turner, 1991). What is often observed through a Facebook group

discussion are individuals who work to sustain a group identity. This is done by resorting to language strategies in order to shield the group from criticism and strengthen already present in-group biases (Mullen, Brown, & Smith, 1992). In the context of Facebook, if there is a dominant idea being presented on Facebook, and a dissenting voice speaks out against the in-group, that individual will be swarmed with defense of the dominant idea. A common strategy employed to accomplish this is to use polarizing language in order to distinguish between the in-group and out-group. In order to keep up with group affiliation, individuals of a group will distance themselves from the out-group, and assume a stereotypical identity of the in-group, again, often seen through the use of polarization (Morin & Flynn, 2014).

Operationalization of Key Concepts

In a study conducted by Mehdizadeh, by administering the NPI-16 to college undergraduate Facebook users, the author correlated a relationship between high levels of narcissism with low levels of self-esteem. When observing the "about me" section, "notes" section, and "status updates" amongst these undergraduates, he reported that these students exhibiting this correlation were likely to spend at least an hour a day on Facebook. Further, these individuals were prone to posting self-promoting images of themselves that were digitally enhanced by the software program, Photoshop (2010).

Ong et al., in observance of the relationship between narcissism and extroversion by adolescents between the ages of 12 and 18, found that after first accounting for extroversion, narcissism was the factor in how self-generated content was presented. Self-generated content includes profile pictures, status updates, "friend" count, and photo count (2011).

There has been no significant correlation between levels of self-esteem and narcissism in the context of amount of time spent and number of friends on Facebook. Impression

management, however, is a concept that the two personality traits do have in common. Both work to display information in order to influence others' opinions of oneself (Goffman, 1959). This is accomplished on Facebook by having certain friends, "checking in," displaying certain photos, and removing/adding tags to photos (Skues, Williams & Wise, 2012).

How Claims have Withstood Testing

Determining what came first: the chicken (narcissism) or the egg (Facebook) and Facebook's influence on narcissism might be explained by considering McKinney et al.'s 2012 study. They conclude that Facebook seems to be an outlet for adolescents to be open about their day-to-day lives rather than to exhibit narcissism. On the other hand, they view Twitter as a more desirable platform for the narcissist to utilize. From this, they surmise that technology does not generate narcissism, but rather, those with narcissistic tendencies seek a technology to practice narcissism.

Key Criticisms

McKinney, Kelly, & Duran (2012) are critical of the claims that narcissism plays such a dominant role in SNS. The authors argue that the basis for these claims are lacking in empirical evidence, and that it needs to be taken into consideration that sites such as Facebook and Twitter are communication tools first and foremost. According to the authors, Facebook users are merely using the platform for its intended use, not to be confused with narcissism. They dispute the findings of Buffardi & Campbell's 2008 study which used the NPI, relating higher numbers on the scale to number of Facebook interactions. It was revealed that there existed no relation between quantity of information posted regarding the self and that profile owner's level of narcissism. Rather, narcissism was positively related to self-promoting posts as well as profile photo attractiveness. Mckinney et al. were also skeptical of the results found by Buffardi &

Campbell claiming that since the study author performed the ratings of self-promoting content, there exists a potential bias affecting the study's results.

Empirical Basis for Criticisms

Conducting their own study, Mckinney, Kelly, & Duran (2012) found that narcissism is not related to a user's frequency of posting about oneself, but rather the amount of self-reported Facebook friends as well as self-focused status updates and photos. They conclude that excessive posting about oneself is not a narcissistic tendency, but an attitude of enthusiasm to share information with a broad array of friends.

According to a 2011 study by Hampton, Goulet, Rainie, & Purcell, the majority of activity by users on Facebook consists of commenting on friends' posts, updates and photos. This outnumbers the amount of status updates about oneself, supporting the idea of Facebook as a tool for intimacy rather than self-centeredness.

Identification of Gaps/"Holes" in Explanatory Power

In literature attempting to explain the psychological effects of narcissism on Facebook, studies will only test one or two psychological variables at a time, as opposed to observing simultaneous effects of variable in interaction with each other (i.e., the effect of narcissism in the presence of psychopathy) (Skues, Williams & Wise, 2012).

Communication Behavior/Effects/Phenomena Left Unexplained

According to Leung's 2013 study, generational differences in content generation in social media by measuring narcissism, causality of these tendencies are yet to be concluded. Leung also maintains that cultural backgrounds may be an important factor in determining varying roles of

narcissism, and that future studies ought to consider empirical studies from a diversity of languages, ethnicities, and cultures.

Parts that Need More Development

Studies examining the correlation between extroversion and narcissism among Facebook users are minimal in the context of SNS. Narcissists are often extroverts, but extroverts do not necessarily have to be narcissists. This may explain the lack of research done in this area, as extroverts are not necessarily as concerned with self-presentation as narcissists tend to be (Ong et al., 2010).

Garcia & Sikström reveal in their 2013 study of Facebook that no quantitative studies of status updates had been performed to date. Their study instead focused on the semantic representation of status updates represents personality traits. It might be useful to conduct a quantitative study which observes how people present themselves on Facebook.

RQ1: Is there a relationship between time spent on extracurricular activities and the frequency of self-expressive Facebook posts?

RQ2: Is there a relationship between time spent maintaining one's social life away from social media, and the frequency of Facebook use?

RQ3: How will demographic information such as gender, ethnicity, age, and occupation have an effect on Facebook use?

RQ4: Will individuals scoring high in extroversion disclose higher levels of self-generated content on Facebook (status updates, photos)?

RQ5: Will individuals scoring high in neuroticism post status updates more often?

RQ6: Will individuals scoring high in narcissism also score high in extroversion?

Hypothesis 1: Participants who score higher on the NPI-40 will also be more likely to disclose information, customize, and self-express on Facebook.

CHAPTER 3: METHOD

Research Design Summary

To examine the research questions and hypothesis, a sample of college students via a two-part survey was conducted in which participants were asked to assess their various personality traits as well as their Facebook habits. The independent variables were represented by gender, levels of narcissism via the Narcissism Personality Inventory, and the "Big Five" personality test. The dependent variables represented were Facebook user habits.

Data was collected following approval of the study by Colorado State University's Institutional Review Board following federal guidelines for conducting human subjects research.

Participants

The population for the survey consisted of Colorado State University college undergraduate students enrolled in JTC 300: Professional and Technical Communications. Each section contains approximately 100 students. By drawing from this group of participants, a thorough and representative sample of the college population will be examined. All CSU students must complete an advanced writing course, JTC 300 being among the choices. This way, conclusions drawn were representative from a variety of backgrounds and interests, providing a reasonably representative cross-section of undergraduate college students at Colorado State University.

Although this convenience sample of students provided insights into the Facebook habits among college students, there were some limitations. The survey's findings can not to be generalizable to the public at large. The survey does not take into account individuals outside of the average undergraduate age group, those with no college experience, or graduate students. In

addition, because this study was exclusive to Colorado State University, its findings are not necessarily applicable to other universities or geographic locations.

Recruiting

Recruiting for this study took place immediately upon the proposal defense, and IRB approval. Participants could not be those who attended the researcher's own recitation periods, as this presented a conflict of interest. In coordinating with two JTC 300 lecture professors, the researcher attended lecture periods on March 25 and March 30, 2015 to recruit participants. Upon approval from these JTC 300 lecture professors, students willing to participate in this study received ten extra credit points for their participation. All students present on the day of the study were eligible to receive the extra credit. Those who chose not to complete the questionnaire were given an alternative task for the extra-credit points. The assignment was a two part questionnaire, measuring the effects of personality traits on Facebook habits. Confidentiality was granted to participants, in which all surveys were tagged with numbers corresponding to subjects' consent forms.

Instrumentation: Questionnaire Overview

For this study, a two part survey was administered, via a ten-page questionnaire, to collect information. The first part collected general demographic information such as gender, age, ethnicity, and college major. The first part of the survey contained the 40-question Narcissistic Personality Inventory, as well as the 25-question "Big Five" personality test, measuring extroversion, neuroticism, agreeableness, conscientiousness, and openness to experience. Also addressed in part one of the survey were moderating variables such as extracurricular activities, and social life.

The second part of the survey examined Facebook user habits such as frequency of Facebook use, sharing/responding, reasons for use, levels of self-expression, self-disclosure, and customization.

Gender identification was answered as either male/female. Ethnicity offered users a set of options, or a "write in" under "other." Age was set up on a 7-point Likert scale. All other questions on each part of the survey will consist of options on a Likert-type scale. The exception is the Narcissistic Personality Inventory, which asks participants to choose between the two most relevant responses.

Data Collection

Student participants were utilized for a survey in which data was collected in two separate, one-hour sessions separate from normally scheduled class time. Two lecture halls were scheduled on separate days, allowing flexibility for students to choose a convenient time. The test administrator gave a statement outlining the purpose of the study:

You are here today to participate in a study on Facebook user habits. After I hand out the questionnaire and ask you to begin, please read and follow the instructions on the questionnaire. Be sure to read and sign the front page regarding informed consent before you begin. Please complete the questionnaire at your own pace. When finished, turn the questionnaire over and wait for collection. Once completed, do not open the questionnaire to change any answers.

Following the briefing statement, questionnaires were distributed. Each participant received a questionnaire from the top of the stack. To ensure willingness to participate, and in order to assign extra credit, students completed a one-page consent form, which was attached to the front of the questionnaire. To assure anonymity and confidentiality, each student brought his

or her completed questionnaire to the front of the classroom. Students were asked to separate the

informed consent form from the questionnaire. The students later will then put the informed

consent form in one box and the questionnaire in another box. The questionnaires were stored in

a locked cabinet separately to assure anonymity of the results.

Upon completion of the questionnaire, subjects received a debriefing. Students were

asked not to discuss experience for at least 48 hours.

Demographic Information

The first part of the survey began by asking participants demographic information, which

were the independent variables in the study. This was in the context of "pre-survey" questions.

These include: gender, ethnicity, age, occupation, and college. Participants selected either male

or female for "what gender do you identify as?" For ethnicity, the major ethnic groups were

listed, and the participants selected one, or filled in the black for "other." Age was presented on a

7-item Likert-scale. College major was a write-in response.

Part-One of Survey

Personality Traits

All data being analyzed in part-one of the survey represented independent variables.

Narcissism was be measured by utilizing the Narcissistic Personality Inventory, or NPI-40,

developed by Westmoreland (2009). Prior to taking the 40-item test, instructions were given to

choose the most relevant response from the two-items presented "that best matches you (even if

it's not a perfect fit)"

Personality traits were measured by utilizing the "Big Five" Personality Test, which uses

the Big-Five Factor Markers from the International Personality Item Pool, developed by

Goldberg (1992). This test consists of 25 statements. Each statement was rated on how much the

participant agrees that that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree.

Extracurricular Activities/Social Life

Finally, part one of the test included three moderating variables. Willingness to disclose gave participants a multiple choice response on levels of willingness to disclose personal information. Time spent on extracurricular activities was measured on a 8-point Likert scale. Time spent maintaining one's social life outside of social media was measured on a 8-point Likert scale.

Part-Two of Survey

Facebook User Habits

Part two of the test examined Facebook user habits as the dependent variable. All items were measured on a 8-point Likert scale, and assessed frequency of use as well, levels of disclosure, and customization. Frequency of Facebook use was measured by asking participants how many hours a day, on average, they spend on Facebook. Frequency of sharing on Facebook was assessed by asking "On average, how many times a day do you share an item on Facebook (article, photo, video, etc.)?" Frequency of responding on Facebook was assessed by asking participants "On average, how many times a day do you respond to others' Facebook statuses by using the "comment" feature?" The response portion asked about frequency of "liking" others' statuses.

The variable of "reason for Facebook use" was measured by asking participants their motivation for utilizing Facebook. Participants rated their levels of importance of the the following items: Announcing notable events/activities in my life, sharing photos, engaging in social discourse (debate, discussion, argument), browsing satirical articles/photos/memes,

seeking news stories, keeping in touch with family/friends. Each of these items was measured by utilizing a 7-point Likert scale on levels of importance: 1) not important at all 2) not all that important 3) somewhat important 4) neutral 5) somewhat important 6) important 7) very important.

Levels of self-expression were assessed by asking participants "On average, how many times a day do you post a status update about your daily life?" This was measured on a 7-point Likert scale of hours in the day. Self-expression was also assessed by asking "On average, how many times a week do you post photos of yourself?"

Levels of self-disclosure was assessed by asking "How much information about yourself do you choose to share on Facebook?" and then giving a list of items to rate regarding self-disclosure on Facebook. These included: "Significant events (birthdays, new job, move, etc)," "Whenever I feel that my Facebook friends might find something about me interesting (what I ate, what I wore, what music I listen to, what is currently on my mind)," and "I post status updates so that my Facebook friends know most of the current events in my life." Each of these items was rated on a 7-point Likert scale ranging from "never" to "more than once a day."

The final variable to be measured was levels of customization of a Facebook profile. The base question was "How much have you customized your Facebook profile?" giving a list of items to rate on customization of a Facebook profile. The items included: "Contact info (e-mail address/phone number)," "Work/education," "Places you've lived," "Favorite music," Favorite movies," "Favorite TV shows," "Favorite books," "The "About you" section," and "Family/Relationships." Each item was rated on a 7-point Likert scale ranging from "Not at all" to "I update immediately after some life change."

Pretesting

Pilot testing was necessary in assessing the level of effectiveness, comprehension, and timeliness of the survey, and was conducted on March 27, 2015. To ensure that individuals with a similar level of education and background were evaluating the survey, students from the researcher's own recitation sections of JTC 300 were utilized. This did not present a conflict of interest since these results were not included in the research. Ten points of extra credit was awarded to these students, and an alternative assignment was given as an option for those who opted out of the pilot test. A short one-page questionnaire was provided to pilot test participants to offer feedback regarding their experience with the test.

Statistical Analysis

Data was compiled and analyzed using the SPSS software. Prior to data entry, the questionnaires were numbered. Data was then compiled, edited, and analyzed using the SPSS software. Scale measures that were reversed in the survey were recoded so all scales ran consistently negative (1) to positive (7). Data was analyzed by first running frequencies and descriptive statistics showing means and standard deviations. Indices were created for scale measures of concepts by combining the scores and computing a mean for each index, after a Cronbach's α was computed for each index to ensure reliability. Hypotheses were tested and research questions were explored primarily using Pearson's r correlations. Analysis of variance (ANOVA) tests were run to investigate the effects of certain demographic variables on key concepts in the study. Correlations were considered statistically significant at the .01 level.

To determine the reliability of the scales within the questionnaire, a Cronbach's α was used for each of the scales. For this study, bivariate correlations and multivariate analysis was used. Correlations were used to study the relationships between interval data.

CHAPTER 4: RESULTS

Profile of Participants

A total of 125 undergraduates from Colorado State University enrolled in JTC 300 participated in the study. 54 (43.2%) participants were male and 71 (56.8%) were female. 97 (77.6%) participants reported as being white. 116 (92.8%) of participants reported being between 18 and 22-years-old.

Measures

After all data was entered in SPSS and checked for errors, certain scales were reversed coded so that all scales would utilize the same low to high agreement, where one equaled the strongest positive response and five equaled the strongest negative response. This 25-item version of the Big Five Personality Inventory (BFI-25) is unique in that positive responses are ordered lower on the Likert Scale, and negative responses are ordered higher (for example: item 1 is "quite often", and item 5 is "almost never"). Reverse coding was necessary for eight of the 25 items in the set of questions concerning personality. After recoding, a factor analysis was conducted in SPSS.

Independent Variables

Upon completion of reliability tests concerning independent variables, seven factors emerged. These factors were used as scale items only if Cronbach's α was equal to or greater than .70. If reliability was low in factors, the individual items comprising the factor were measured in correlations rather than the scale as a whole.

The first factor reflected participants' ideas regarding the personality trait of being a loner, and was thus named "Loner." The five items in this factor were "I enjoy exploring new

places," "I pride myself on being different," "I have a broad range of interests and hobbies," "I am good at thinking 'outside the box'," and "I go out of the way to better myself." The combined five-item Loner index revealed a mean of 2.00 (*SD* = 0.58).

To determine if these items were consistent indicators of participants' dispositions for being a loner, they were tested for reliability and resulted in a Cronbach's α of .73.

The second factor reflected participants' ideas regarding the personality trait of extroversion, and was thus named "Extroversion." The four items in this factor were "I like to attend gatherings where I can meet new people," "When I meet someone new, it doesn't take me long to tell him/her a lot about myself," "I am a private person," and "Interaction with other people is..." The combined four-item Extroversion index revealed a mean of 2.60 (*SD* = 0.74). To determine if these items were consistent indicators of participants' ideas of extroversion, they were tested for reliability and resulted in a Cronbach's α of 0.73.

The third factor reflected participants' ideas regarding the personality trait of being unorganized, and was thus named "Unorganized." The three items in this factor were "During tough times, I am more prone to unhealthy behaviors (abusing drugs or alcohol, eating unhealthy foods, getting less sleep)," "I procrastinate on matters relevant to work," and "I am easily distracted." For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α of 0.6, and were therefore used as single items during analysis.

The fourth factor reflected participants' ideas regarding the personality trait of neuroticism, and was thus named "Neuroticism." The four items in this factor were "I present myself in ways that are very different from who I really am," "I break promises," "I lose important things/documents," and "I am able to motivate myself to complete unpleasant but

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necessary tasks." For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α of 0.59, and were therefore used as single items during analysis.

The fifth factor reflected participants' ideas regarding the personality trait of self-control, and was thus named "Self-control." The three items in this factor were "I feel like I'm on an emotional roller coaster," "I can calm myself down when under stress," and "When I get angry I have _____self-control." For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α of 0.52, and were therefore used as single items during analysis.

The sixth factor reflected participants' ideas regarding the personality trait of validation, and was thus named "Validation." The two items in this factor were "I need someone to tell me that I have done a good job in order to feel good about my work," and "If you were seated on a crowded bus and noticed an elderly person standing, would you give up your place?" For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α of 0.39, and were therefore used as single items during analysis.

The seventh factor reflected participants' ideas regarding the personality trait of trust, and was thus named "Trust." The two items in this factor were "It's my way or the highway," and "Most people are trustworthy." For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α of 0.39, and were therefore used as single items during analysis.

The eight factor determined levels of narcissism within participants, and was thus named "Narcissism." The 40 items making up this additive index consisted of binary questions in which

participants would choose the better of the two responses. The nominal dichotomous items were coded 0 and 1, adding up the '1' answers to obtain the narcissism score, with higher scores signifying more narcissism.

Moderating Variables

Willingness to Disclose

To gauge how willing participants were to disclose personal information about themselves, respondents were asked to rate their willingness using a 7-point Likert-type scale (1 = Not at all, 7 = Very). The statement included: How willing are you to disclose personal information about yourself?

Extracurricular Activities

To gauge how often participants engaged in extracurricular activities away from social media, participants were asked to rate their time spent using a 7-point Likert-type scale (1 = 0-1 hours, 7 = more than 20 hours). The statement included: How many hours a week do you spend on extracurricular activities away from social media (athletics, art, on-campus clubs/organizations, church, etc.)?

Social Life

To gauge how often participants engaged in activities concerning social life away from social media, participants were asked to rate their time spent using a 7-point Likert-type scale (1 = 0-1 hours, 7 = more than 20 hours). The statement included: How many hours a week do you spend maintaining your social life away from social media (time with friends, significant other, family)?

Dependent Variables

Upon completion of reliability tests concerning dependent variables, eight factors representing Facebook activities and disclosure emerged. These factors were used as scale items only if Cronbach's α was equal to or greater than 0.70. If reliability was low in factors, the individual items comprising the factor were measured in correlations rather than the scale as a whole.

The first factor reflected participants' ideas of what constitutes disclosure of entertainment preferences, and was thus named "Entertainment." The four items in this factor were "Music," "Movies," "TV," and "Books." The combined four-item Entertainment index revealed a mean of 1.8496 (SD = 1.15). To determine if these items were consistent indicators of participants' preferences in entertainment, they were tested for reliability and resulted in a Cronbach's α of .88.

The second factor reflected participants' ideas of what constitutes exploring Facebook content, and was thus named "Exploring." The four items in this factor were "Photos," "Browsing," "News," and "Family." The combined four-item Exploring index revealed a mean of 4.0860 (SD = 1.50). To determine if these items were consistent indicators of participants' ideas of exploring Facebook content, they were tested for reliability and resulted in a Cronbach's α of .80.

The third factor reflected participants' tendencies to post news about themselves and was thus named "News About Self" The four items in this factor were "Announcing notable events/activities in my life," "What my Facebook friends might find interesting," "Current events in my life," and "Family/Relationships." For the factors to be found to be reliable, multiple-item

indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α of .67, and were therefore used as single items during analysis.

The fourth factor reflected participants' permanent profile information and was thus named "Permanent" The three items in this factor were "Contact information," "Workplace," and "Places you've lived." For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α below .70, and were therefore used as single items during analysis.

The fifth factor reflected participants' daily frequencies of posting on Facebook, and was thus named "Daily Frequencies." The two items in this factor were "Hours," and "Sharing." For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α below .70, and were therefore used as single items during analysis.

The sixth factor reflected participants' frequencies of responding to others, and was thus named "Respond." The two items in this factor were "Commenting," and "Liking." For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α below .70, and were therefore used as single items during analysis.

The seventh factor reflected participants' frequencies of engaging in miscellaneous Facebook activities, and was thus named "Other." The three items in this factor were "Update your status," "Engaging in discourse," and "Significant events." For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α below .70, and were therefore used as single items during analysis.

The eighth factor reflected participants' frequencies of posting content, and was thus named "Content Frequency." The two items in this factor were "How many times posting/day about daily life," and "How many times/week do you post a photo of yourself." For the factors to be found to be reliable, multiple-item indices were constructed. The items comprising this factor were not found reliable with a Cronbach's α below .70, and were therefore used as single items during analysis.

Research Questions

Research questions were investigated by the use of examining correlations. Given the large number of independent and dependent variables in each research question, the fact that some are categorical and others are continuous, and that the research questions encompass both differences between groups and correlations between variables, additional analysis was needed. To ensure a thorough examination beyond correlations in regards to the relationships between variables, stepwise multiple regression was utilized for all research questions. This was to identify what accounted for the variation in the dependent variables beyond basic correlations.

Research Question 1

Research Question 1 asked whether a relationship existed between time spent on extracurricular activities and the frequency of self-expressive Facebook posts.

To determine if a relationship between extracurricular activities and Facebook use existed, a two-tailed correlation test was conducted. As shown in Table 1, respondents indicated no relationship.

Table 1

Correlation between extracurricular activities and frequency of self-expressive Facebook posts

Moderator		Extracurricular	Announcing	Interesting	Current
Extracurricular activities	Pearson Correlation	1	.156	.079	.045
	Sig. (2-tailed)		.083	.387	.622
	N	124	124	122	122

Because results of the correlation indicated that extracurricular activities were not a predictor for frequency of self-expressive Facebook posts, post-hoc stepwise multiple regression analysis was conducted to determine other possible predictors of the of self-expressive Facebook posts.

The stepwise multiple regression was conducted with all of the survey's independent variables entered against the News About Self dependent variables (this factor included the items "Announcing notable events/activities in my life ," "What my Facebook friends might find interesting," "Current events in my life," and "Family/Relationships"). News About Self variables represented self-expressive Facebook posts.

From these independent variables, gender emerged first as a predictor of frequency of "Announcing notable events/activities in my life." As noted in Table 2, gender accounted for 3.5 percent of the variance found.

Table 2

Results of stepwise multiple regression analysis for predictors of "Announcing notable events/activities in my life."

Predictor	B	SE	β	t
Gender	.768	.329	.208	2.332

Overall: $F_{(5.438)}= .021$, Adjusted $R^2 =.035$, $p<.05$

BFI-1 (I feel like I'm on an emotional roller coaster), gender, and BFI-19 (It's my way or the highway) were predictors of frequency for "What my Facebook friends might find interesting." As noted in Table 3, BFI-19 accounted for 10.2 percent of the variance found,

gender accounted for 7.5 percent of the variance found, and BFI-1 accounted for 5 percent of the variance found.

Table 3

Results of stepwise multiple regression analysis for predictors of "Interesting."

Predictor	B	SE	β	t
BFI-19	-.242	.114	-.184	-2.116
Gender	.456	.205	.199	2.231
BFI-1	-.212	.098	-.192	-2.157

Overall: $F(5.501)= .001$, Adjusted $R^2 =.102$, p<.05

BFI-23 (When I get angry, I have_____self-control) and gender were predictors of frequency for "current events in my life." As noted in Table 4, gender accounted for 7 percent of the variance found, and BFI-23 accounted for 4.6 percent of the variance found.

Table 4

Results of stepwise multiple regression analysis for predictors of "Current events in my life"

Predictor	B	SE	β	t
Gender	.407	.203	.178	2.004
BFI-23	.311	.127	.218	2.455

Overall: $F(5.483)= .005$, Adjusted $R^2 =.070$, p<.05

BFI-3 (I feel uneasy in situations where I am expected to display physical affection) was a predictor of frequency for "Family/Relationships." As noted in Table 5, BFI-3 accounted for 3 percent of the variance found.

Table 5

Results of stepwise multiple regression analysis for predictors of "Family/Relationships"

Predictor	B	SE	β	t
BFI-3	-.256	.118	-.195	-2.160

Overall: $F(4.667)= .033$ Adjusted $R^2 =.030$, p<.05

Research Question 2

Research Question 2 asked whether a relationship existed between time spent maintaining one's social life away from social media, and the frequency of Facebook use.

To determine if a relationship between social life and frequency of Facebook use existed, a two-tailed correlation test was conducted. As shown in Table 6, respondents indicated no relationship.

Table 6

Correlation between social life and frequency of Facebook use

Moderator		Social life	Hours	Share	Daily Post
Social life	Pearson Correlation	1	.100	.072	-.015
	Sig. (2-tailed)		.268	.423	.867
	N	125	125	125	125

Because results of the correlation indicated that social life was not a predictor for frequency of Facebook use, post-hoc stepwise multiple regression analysis was conducted to determine other possible predictors of the of frequency of Facebook use.

The stepwise multiple regression was conducted with all of the survey's independent variables entered against the Daily Frequency dependent variables (this factor included the items "Hours" and "Sharing") and Content Frequency dependent variables (this factor included the items "Daily post" and "Weekly photo").

From these independent variables, BFI-1 (I feel like I'm on an emotional roller coaster) and BFI-13 (When I'm really sad or down, I seek the company of others) emerged as the first predictors of frequency of "Hours" As noted in Table 7, BFI-13 accounted for 8.9 percent of the variance found, and BFI-1 accounted for 6 percent of the variance found.

Table 7

Results of stepwise multiple regression analysis for predictors of "Hours"

Predictor	B	SE	β	t
BFI-13	-.167	.076	-.190	-2.957
BFI-1	-.238	.080	-.256	2.455

Overall: $F(6.937) = .001$, Adjusted $R^2 = .089$, $p < .05$

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BFI-13 (When I'm really sad or down, I seek the company of others) emerged as a predictor of frequency of "sharing." As noted in Table 8, BFI-13 accounted for 4.1 percent of the variance found.

Table 8

Results of stepwise multiple regression analysis for predictors of "Sharing"

Predictor	B	SE	β	t
BFI-13	-.053	.021	-.222	-2.502

Overall: $F_{(6.258)}$= .014, Adjusted R^2 =.041, p<.05

Gender emerged as the predictor of frequency of "weekly photo." As noted in Table 9, gender accounted for 5.5 percent of the variance found.

Table 9

Results of stepwise multiple regression analysis for predictors of "weekly photo"

Predictor	B	SE	β	t
Gender	.215	.075	.251	2.854

Overall: $F_{(8.147)}$= .005, Adjusted R^2 =.055, p<.05

Research Question 3

Research Question 3 asked whether gender had an effect on Facebook use. Facebook use included the dependent variables Entertainment index, Exploring index, the News About Self factor ("Announcing notable events/activities in my life,") "What my Facebook friends might find interesting," "Current events in my life," "Family/Relationships"), "Commenting," "Liking," "Daily post," and "Weekly photo."

To determine if a relationship between gender and Facebook use existed, an independent-samples t-test was conducted. Significance was found amongst dependent variables the Exploring index, "Announcing notable events/activities in my life," "What my Facebook friends might find interesting," "Current events in my life," "Commenting," "Liking," and "Weekly photo."

In comparing "Exploring" between males and females, there was a significant difference in the scores for males (M=1.80, SD=1.52) and females (M=4.60, SD=1.26); t(101.22)=-4.70, p = 0.000. Specifically, our results suggest that females explore Facebook more frequently than males.

In comparing "Announcing notable events/activities in my life" between males and females, there was a significant difference in the scores for males (M=2.98, SD=1.73) and females (M=3.76, SD=1.82); t(123)=-2.42, p = 0.017. Specifically, the results suggest that females announce notable events/activities in their lives on Facebook more frequently than males.

In comparing "What my Facebook friends might find interesting," between males and females, there was a significant difference in the scores for males (M=1.42, SD=0.908) and females (M=1.90, SD=1.24); t(120.88)=-2.50, p = 0.014. Specifically, our results suggest that females announce what their Facebook friends might find interesting more frequently than males.

In comparing "current events in my life" between males and females, there was a significant difference in the scores for males (M=1.66, SD=1.073) and females (M=2.14, SD=1.16); t(121)=-2.36, p = 0.020. Specifically, our results suggest that females announce current events in their lives on Facebook more frequently than males.

In comparing "Commenting" between males and females, there was a significant difference in the scores for males (M=1.11, SD=0.462) and females (M=1.38, SD=0.962); t(106.08)=-2.07, p = 0.041. Specifically, our results suggest that females use the "Commenting" feature on Facebook more frequently than males.

In comparing "Liking" between males and females, there was a significant difference in the scores for males (M=1.59, SD=0.981) and females (M=2.17, SD=1.502); t(123)=-2.45, p = 0.016. Specifically, our results suggest that females use the "like" feature on Facebook more frequently than males.

In comparing "weekly photo" between males and females, there was a significant difference in the scores for males (M=1.06, SD=0.231) and females (M=1.28, SD=0.512); t(102.79)=-3.30, p = 0.041. Specifically, our results suggest that females share a weekly photo on Facebook more frequently than males.

Research Question 4

Research Question 4 asked whether individuals scoring high in extroversion disclose higher levels of self-generated content on Facebook.

To determine if a relationship between extroversion and levels of self-generated content on Facebook existed, a two-tailed correlation test was conducted. As shown in Table 10, only the Entertainment index indicated a relationship at -0.251 percent.

Table 10

Correlation between social life and frequency of Facebook use

Independent variable		Extroversion	Entertain ment	Announcing	Interesting	Current	Relation	Comment	Like	Daily Post	Weekly photo
Extroversion	Pearson Correla tion	1	-.251[**]	-.002	-.159	.025	-.127	-.075	-.105	-.014	.129
	Sig. (2-tailed)		.005	.986	.080	.789	.163	.410	.247	.877	.155
	N	124	122	124	122	122	122	124	124	124	124

Because results of the correlation indicated that extroversion was not a predictor for levels of self-generated Facebook content, post-hoc stepwise multiple regression analysis was conducted to determine other possible predictors of levels of self-generated content.

The stepwise multiple regression was conducted with all of the survey's independent variables entered against the Entertainment index, Content Frequency dependent variables (this factor included the items "Daily post" and "Weekly photo"), News About Self dependent variables (this factor included the items "Announcing notable events/activities in my life," "What my Facebook friends might find interesting," "Current events in my life," and "Family/Relationships"), Responding dependent variable (this factor included the items "Commenting," and "Liking"), and Content Frequency dependent variable (this factor included the items "Daily post," and "Weekly photo").

From these independent variables, BFI-9 (I need someone to tell me that I've done a good job in order to feel good about my work), the Extroversion index, and BFI-19 (It's my way or the highway) emerged as the predictors of frequency of Entertainment as noted in Table 11, BFI-9 accounted for 13.6 percent of the variance found, Extroversion index accounted for 11.1 percent of the variance found, and BFI-19 accounted for 6 percent of the variance found.

Table 11

Results of stepwise multiple regression analysis for predictors of Entertainment

Predictor	B	SE	β	t
BFI-9	-.217	.104	-.178	-2.089
Extroversion	.378	.132	.244	2.855
BFI-19	-.238	.080	-.256	-2.854

Overall: $F(8.644)= .004$, Adjusted $R^2 =13.6$, $p<.05$

The Loner index, BFI-9 (I need someone to tell me that I've done a good job in order to feel good about my work), and gender emerged as the predictors of frequency of Exploring. As noted in Table 12, the Loner index accounted for 21.6 percent of the variance found, BFI-9

accounted for 19.1 percent of the variance found, and gender accounted for 14.7 percent of the

variance found.

Table 12

Results of stepwise multiple regression analysis for predictors of Exploring

Predictor	B	SE	β	t
Loner	-.462	.211	-.181	-2.189
BFI-9	-.411	.128	-.266	-3.198
Gender	-.462	.211	-.181	-2.189

Overall: $F(12.114)$= .000, Adjusted R^2 =13.6, p<.05

Gender emerged as the predictor of frequency of "Announcing notable events/activities in

my life" As noted in Table 13, gender accounted for 3.5 percent of the variance found.

Table 13

Results of stepwise multiple regression analysis for predictors of Announcing

Predictor	B	SE	β	t
Gender	.768	.328	-.208	2.332

Overall: $F(5.438)$= .021, Adjusted R^2 =.035, p<.05

BFI-19 (It's my way or the highway), gender, and BFI-1 (I feel like I'm on an emotional

roller coaster) emerged as the predictors of frequency of "What my Facebook friends might find

interesting." As noted in Table 14, the BFI-19 accounted for 10.2 percent of the variance found,

gender accounted for 7.5 percent of the variance found, and BFI-1 accounted for 5 percent of the

variance found.

Table 14

Results of stepwise multiple regression analysis for predictors of "Interesting"

Predictor	B	SE	β	t
BFI-19	-.242	.114	-.184	-2.116
Gender	.456	.205	.199	2.231
BFI-1	-.212	.098	-.192	-2.157

Overall: $F(5.501)$= .001, Adjusted R^2 =.102, p<.05

Gender and BFI-23 (When I get angry, I have _____ self-control) emerged as the

predictors of frequency of "current events in my life" As noted in Table 15, gender accounted

for 7 percent of the variance found, and BFI-23 accounted for 4.6 percent of the variance found.

Table 15

Results of stepwise multiple regression analysis for predictors of "Current events in my life"

Predictor	B	SE	β	t
Gender	.407	.203	.178	2.004
BFI-23	.311	.127	.218	2.455

Overall: $F(5.483)= .005$, Adjusted R² =.070, p<.05

BFI-3 (I feel uneasy in situations where I am expected to display physical affection) emerged as the predictor of frequency of "Family/Relationships." As noted in Table 16, BFI-3 accounted for 3 percent of the variance found.

Table 16

Results of stepwise multiple regression analysis for predictors of "Family/Relationships"

Predictor	B	SE	β	t
BFI-3	-.256	.118	-.195	-2.160

Overall: $F(4.667)= .033$, Adjusted R² =.030, p<.05

BFI-1 (I feel like I'm on an emotional roller coaster) emerged as the predictor of frequency of "Commenting." As noted in Table 16, BFI-1 accounted for 3 percent of the variance found.

Table 17

Results of stepwise multiple regression analysis for predictors of "Commenting"

Predictor	B	SE	β	t
BFI-1	-.154	.069	-.201	-2.246

Overall: $F(5.042)= .027$, Adjusted R² =.032, p<.05

The Narcissism index and Gender emerged as the predictors of frequency of "Liking." As noted in Table 18, Narcissism index accounted for 7.4 percent of the variance found, and gender accounted for 3.7 percent of the variance found.

Table 18

Results of stepwise multiple regression analysis for predictors of "Liking"

Predictor	B	SE	β	t
Narcissism	.050	.021	.216	2.423
Gender	.677	.240	.251	2.818

Overall: $F(5.851)= .004$, Adjusted R² =.074, p<.05

Gender emerged as the predictor of frequency of "Weekly photo." As noted in Table 19, Gender accounted for 5.1 percent of the variance found.

Table 19

Results of stepwise multiple regression analysis for predictors of "Weekly photo"

Predictor	B	SE	β	t
Gender	.204	.075	.242	2.730

Overall: $F(5.042)= .027$, Adjusted $R^2 =.032$, $p<.05$

Research Question 5

Research Question 5 asked whether individuals scoring high in neuroticism post status updates more often on Facebook. The four items in "Neuroticism" factor were "I present myself in ways that are very different from who I really am," "I break promises," "I lose important things/documents," and "I am able to motivate myself to complete unpleasant but necessary tasks."

Status updates were represented by the factor "News About Self." The four items in this factor were "Announcing notable events/activities in my life," "What my Facebook friends might find interesting," "Current events in my life," and "Family/Relationships."

To determine if a relationship between neuroticism and frequency of posting status updates on Facebook existed, a two-tailed correlation test was conducted correlating the items in the Neuroticism factor with the items in the News About Self factor. As shown in Table 20, respondents indicated no relationship.

Table 20

Correlation between social life and frequency of Facebook use

		BFI-4	BFI-6	BFI-7	BFI-22	Announcing	Interesting	Current	Relation
BFI-4	Pearson Correlation	1	.255**	.235**	.110	.020	.058	.010	.041
	Sig. (2-tailed)		.004	.008	.224	.823	.521	.917	.653
	N	125	125	125	125	125	123	123	123
BFI-6	Pearson Correlation	.255**	1	.512**	.287**	-.041	-.036	.048	.073
	Sig. (2-tailed)	.004		.000	.001	.649	.696	.601	.421
	N	125	125	125	125	125	123	123	123
BFI-7	Pearson Correlation	.235**	.512**	1	.201*	-.088	.009	-.032	.049
	Sig. (2-tailed)	.008	.000		.025	.329	.925	.725	.593
	N	125	125	125	125	125	123	123	123
BFI-22	Pearson Correlation	.110	.287**	.201*	1	-.077	-.067	-.028	-.063
	Sig. (2-tailed)	.224	.001	.025		.394	.461	.758	.491
	N	125	125	125	125	125	123	123	123

Because results of the correlation indicated that neuroticism was not a predictor for the frequency of posting status updates on Facebook, post-hoc stepwise multiple regression analysis was conducted to determine other possible predictors of frequency of posting status updates.

The stepwise multiple regression was conducted with all of the survey's independent variables entered against the News About Self dependent variables (this factor included the items "Announcing notable events/activities in my life ," "What my Facebook friends might find interesting," "Current events in my life," and "Family/Relationships").

Gender emerged as the predictor of frequency of "Announcing notable events/activities in my life" As noted in Table 21, gender accounted for 3.5 percent of the variance found.

Table 21

Results of stepwise multiple regression analysis for predictors of "Announcing"

Predictor	B	SE	β	t
Gender	.768	.328	-.208	2.332

Overall: $F(5.438)= .021$, Adjusted R² =.035, p<.05

BFI-19 (It's my way or the highway), gender, and BFI-1 (I feel like I'm on an emotional roller coaster) emerged as the predictors of frequency of "What my Facebook friends might find interesting." As noted in Table 22, the BFI-19 accounted for 10.2 percent of the variance found, gender accounted for 7.5 percent of the variance found, and BFI-1 accounted for 5 percent of the variance found.

Table 22

Results of stepwise multiple regression analysis for predictors of "Interesting"

Predictor	B	SE	β	t
BFI-19	-.242	.114	-.184	-2.116
Gender	.456	.205	.199	2.231
BFI-1	-.212	.098	-.192	-2.157

Overall: $F(5.501)= .001$, Adjusted R² =.102, p<.05

Gender and BFI-23 (When I get angry, I have _____ self-control) emerged as the predictors of frequency of "current events in my life" As noted in Table 23, gender accounted for 7 percent of the variance found, and BFI-23 accounted for 4.6 percent of the variance found.

Table 23

Results of stepwise multiple regression analysis for predictors of ""current events in my life"

Predictor	B	SE	β	t
Gender	.407	.203	.178	2.004
BFI-23	.311	.127	.218	2.455

Overall: $F(5.483)= .005$, Adjusted R² =.070, p<.05

BFI-3 (I feel uneasy in situations where I am expected to display physical affection) emerged as the predictor of frequency of "Family/Relationships." As noted in Table 24, BFI-3 accounted for 3 percent of the variance found.

Table 24

Results of stepwise multiple regression analysis for predictors of "Family/Relationships"

Predictor	B	SE	β	t
BFI-3	-.256	.118	-.195	-2.160

Overall: $F(4.667)$= .033, Adjusted R^2 =.030, p<.05

Research Question 6

Research Question 6 asked whether individuals scoring high in narcissism also score high in extroversion.

To determine if a relationship between narcissism and extroversion existed, a two-tailed correlation test was conducted with the items in the Narcissism Personality Inventory (NPI-40) and the items in the Extroversion index. As shown in Table 25, respondents indicated a weak positive relationship.

Table 25

Correlation between social life and frequency of Facebook use

		Narcissism	Extroversion
Narcissism	Pearson Correlation	1	.263[**]
	Sig. (2-tailed)		.003
	N	124	123
Extroversion	Pearson Correlation	.263[**]	1
	Sig. (2-tailed)	.003	
	N	123	124

Hypothesis

Hypothesis 1 predicted that participants who scored higher on the NPI-40 would also be more likely to disclose information, customize, and self-express on Facebook.

To determine if a relationship existed between between narcissism and disclosure of information, customization, and self-expression of Facebook, a two-tailed correlation test was conducted with the items in the NPI-40 and the items in "News About Self" (this factor included the items "Announcing notable events/activities in my life," "What my Facebook friends might

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find interesting," "Current events in my life," and "Family/Relationships"), and the

Entertainment index. As shown in Table 26, respondents indicated no relationship.

Table 26

Correlation between narcissism and disclosure of information, customization, and self-expression

		Narcissism	Announcing	Interesting	Current	Relation	Entertainment	Update	Discourse	Sigevents
Narcissism	Pearson Correlation	1	.091	.048	.064	.036	.103	-.078	.057	.016
	Sig. (2-tailed)		.317	.599	.482	.696	.260	.392	.530	.862
	N	124	124	122	122	122	122	124	124	122

Because results of the correlation did not support Hypothesis 1, post-hoc stepwise

multiple regression analysis was conducted to determine other possible predictors of disclosure

of information, customization, and self-expression on Facebook.

The stepwise multiple regression was conducted with all of the survey's independent

variables entered against the News About Self dependent variables (this factor included the items

"Announcing notable events/activities in my life," "What my Facebook friends might find

interesting," "Current events in my life," and "Family/Relationships") and the Entertainment

index.

Gender emerged as the predictor of frequency of "Announcing notable events/activities in

my life" As noted in Table 27, gender accounted for 3.5 percent of the variance found.

Table 27

Results of stepwise multiple regression analysis for predictors of Announcing

Predictor	B	SE	β	t
Gender	.768	.328	-.208	2.332

Overall: $F(5.438)= .021$, Adjusted $R^2 =.035$, p<.05

BFI-19 (It's my way or the highway), gender, and BFI-1 (I feel like I'm on an emotional

roller coaster) emerged as the predictors of frequency of "What my Facebook friends might find

interesting." As noted in Table 28, the BFI-19 accounted for 10.2 percent of the variance found, gender accounted for 7.5 percent of the variance found, and BFI-1 accounted for 5 percent of the variance found.

Table 28

Results of stepwise multiple regression analysis for predictors of "Interesting"

Predictor	B	SE	β	t
BFI-19	-.242	.114	-.184	-2.116
Gender	.456	.205	.199	2.231
BFI-1	-.212	.098	-.192	-2.157

Overall: $F(5.501)$= .001, Adjusted R^2 =.102, p<.05

Gender and BFI-23 (When I get angry, I have _____ self-control) emerged as the predictors of frequency of "current events in my life" As noted in Table 29, gender accounted for 7 percent of the variance found, and BFI-23 accounted for 4.6 percent of the variance found.

Table 29

Results of stepwise multiple regression analysis for predictors of ""Current events in my life"

Predictor	B	SE	β	t
Gender	.407	.203	.178	2.004
BFI-23	.311	.127	.218	2.455

Overall: $F(5.483)$= .005, Adjusted R^2 =.070, p<.05

BFI-3 (I feel uneasy in situations where I am expected to display physical affection) emerged as the predictor of frequency of "Family/Relationships." As noted in Table 30, BFI-3 accounted for 3 percent of the variance found.

Table 30

Results of stepwise multiple regression analysis for predictors of "Family/Relationships"

Predictor	B	SE	β	t
BFI-3	-.256	.118	-.195	-2.160

Overall: $F(4.667)$= .033, Adjusted R^2 =.030, p<.05

BFI-9 (I need someone to tell me that I've done a good job in order to feel good about my work), the Extroversion index, and BFI-19 (It's my way or the highway) emerged as the predictors of frequency of Entertainment As noted in Table 31, BFI-9 accounted for 13.6 percent

of the variance found, Extroversion index accounted for 11.1 percent of the variance found, and

BFI-19 accounted for 6 percent of the variance found.

Table 31

Results of stepwise multiple regression analysis for predictors of Entertainment

Predictor	B	SE	β	t
BFI-9	-.217	.104	-.178	-2.089
Extroversion	.378	.132	.244	2.855
BFI-19	-.238	.080	-.256	-2.854

Overall: $F(8.644)= .004$, Adjusted $R^2 = 13.6$, p<.05

CHAPTER 5: DISCUSSION

This study investigated the effects of personality traits on individuals' Facebook habits. Specifically, it explored the factors that prompt individuals to engage in certain behaviors on Facebook, and at what frequency based on personality traits.

Offline Activities and Frequency of Facebook Use

Results did not support a correlation between time spent on extracurricular activities and frequency of Facebook use, or a correlation between time spent maintaining one's social life away from social media and frequency of Facebook use. It is assumed that the population sampled will make time to spend on Facebook regardless of time spent on extracurricular activities and social life. Individuals may even be encouraged to spend ample time on extracurricular activities and offline social life in order to create more information to disclose on Facebook. This relates to warranting theory, which creates a link between the online and offline self. Warrants help make judgments about an individual in the offline world based upon what they disclose in the online world (Walther & Parks, 2002). Therefore, users might engage in impression management by going out of their way to participate in offline activities to establish a preferred image in the online world, also relating to the Hyperpersonal Model (Walther, 1996).

Post-hoc stepwise multiple regression analysis was used to determine other predictors for self-expressive Facebook posts. Self-expressive Facebook posts were represented by the factor News about Self. This factor included the items "Announcing notable events/activities in my life," "What my Facebook friends might find interesting," "Current events in my life," and "Family/Relationships."

BFI-19 (It's my way or the highway) accounted for 10.2 percent of the variance, gender accounted for 7.5 percent of the variance, and BFI-1 (I feel like I'm on an emotional roller coaster) accounted for 5 percent of the variance found for "What my Facebook friends might find interesting." This may suggest that individuals disclose information on Facebook when they are experiencing highly emotional or stressful periods, or who potentially have a controlling demeanor. Research suggests that individuals will "gate" undesirable features on Facebook to compensate for qualities lacking in a face-to-face environment (Zhao, Grasmuck, & Martin, 2008).

BFI-23 (When I get angry, I have_____self-control) accounted for 4.6 percent of variance and gender accounted for 7 percent of variance found for "Current events in my life." This may suggest that individuals of a certain gender disclose information about themselves on Facebook depending on their levels of self-control. Gender accounted for 5.5 percent of variance found for sharing a "weekly photo" on Facebook. This is explained further in the discussion chapter when differences between means are explored, and Facebook activities between males and females are explained.

BFI-3 (I feel uneasy in situations where I am expected to display physical affection) accounted for 3 percent of variance found for "Family/Relationships," which may suggest that individuals who feel uneasy in situations where they are expected to display physical affection tend to disclose more information about family and/or relationships, possibly as a means to compensate for a lack of physical affection in a face-to-face environment. This is in line with research that suggests that individuals who are highly neurotic frequent the Wall function on Facebook most often (Ross et al., 2009).

BFI-1 (I feel like I'm on an emotional roller coaster) accounted for 6 percent of variance and BFI-13 (When I'm really sad or down, I seek the company of others) accounted for 8.9 percent of variance found for frequency of "Hours" spent on Facebook. This may suggest that individuals who are in a turbulent or sad emotional situation spend more time on Facebook, seeking the company of others as a means to cope. BFI-13 also accounted for 4.1 of variance found for "sharing" items on Facebook, further explaining Facebook activity when "feeling sad or down" and seeking the company of others online to cope.

Extroversion and Levels of Self-Generated Content

Results supported a weak-negative relationship between extroversion and levels of self-generated content on Facebook with regards to the Entertainment index. This weak-negative relationship suggests that individuals high in extroversion will post lower amounts of entertainment content on Facebook.

Post-hoc stepwise multiple regression analysis was used to determine other predictors for self-generated content on Facebook. Self-generated content was represented by the Entertainment index, the News About Self Factor, Commenting, Liking, Daily post, and Weekly photo.

BFI-9 (I need someone to tell me that I have done a good job in order to feel good about my work) accounted for 13.6 percent, the Extroversion index accounted for 11.1 percent of the variance, and BFI-19 (It's my way or the highway) accounted for 6 percent of the variance found for the Entertainment index. This may suggest that individuals who seek validation and are set in their ways are more prone to disclosing self-generated content having to do with entertainment (music, movies, TV, books).

The Loner index accounted for 21.6 percent of the variance, BFI-9 (I need someone to tell me that I have done a good job in order to feel good about my work) accounted for 19.1 percent of the variance, and gender accounted for 14.7 percent of the variance found for Exploring on Facebook. This may suggest that individuals who are perceived as "loners" that seek validation are more prone to explore on Facebook depending on gender. Loners may find solace in exploring content on Facebook since these individuals typically spend time on their own than with others. Facebook may grant them the ability to explore the outside world without having to do so in the company of others. This would also explain that since there is no significant correlation between extroversion and self-disclosure on Facebook, it would make sense that there would be a relationship for those identifying as "loners" as opposed to extroverts.

BFI-19 (It's my way or the highway) accounted for 10.2 percent of variance, gender accounted for 7.5 percent of variance, and BFI-1 (I feel like I'm on an emotional roller coaster) accounted for 5 percent of variance found for "What my Facebook friends might find interesting." Research suggests that Facebook encourages self-disclosure in its users by being open to presenting their inner thoughts and emotional states (Mazer, Murphy, & Simonds 2007). In this case, individuals feeling like they are on an "emotional roller coaster" may be more likely to self-disclose self-generated content.

BFI-23 (When I get angry, I have ____ self-control) emerged as the predictor of frequency of "Current events in my life" accounting for 4.6 percent of variance and gender accounted for 7 percent of the variance found. This may suggest that depending on the level of self-control present during anger, individuals may feel more of a need to disclose current events in their lives.

BFI-1 (I feel like I'm on an emotional roller coaster) emerged as the predictor of frequency of "Commenting" accounting for 3 percent of the variance found. High levels of emotional frequencies may prompt an individual to comment more often on Facebook. Research suggests that unique to social media, individuals are more likley to engage in self-disclosure, and at higher levels) when the personal risk or cost in doing so is low (Andrare, Kaltcheva, Weitz, 2002). In a face-to-face environment, an individual might be more reserved in commenting during moments of increased emotions, but less inclined to do so while on Facebook.

The Narcissism index emerged as a predictor of frequency of "Liking" accounting for 7.4 percent of variance and and gender accounting for 3.7 percent of variance found. Those individuals high in narcissism may feel like they are doing a favor others by "liking" content, essentially granting their seal of approval to their own Facebook friends.

Gender also emerged as the predictor of frequency of "Weekly photo" with 5.1 percent of variance found and "Announcing notable events/activities in my life" with 3.5 percent of variance found. This will be further explored in the "Gender and Facebook Use" section when a difference in means are compared.

Neuroticism and Levels of Posting Status Updates

Results did not support a correlation between neuroticism and frequency of posting status updates on Facebook. Post-hoc stepwise multiple regression analysis was used to determine other predictors for self-expressive Facebook posts. Self-expressive Facebook posts were represented by the factor News About Self. This factor included the items "Announcing notable events/activities in my life," "What my Facebook friends might find interesting," "Current events in my life," and "Family/Relationships." Post-hoc stepwise multiple regression analysis was

previously run on the News About Self factor in the "Offline Activities and Frequency of Facebook Use" section and yielded the same results.

Research suggests that individuals who are highly neurotic post status updates more often (Ross et al., 2009). This conflicts with our results, which suggest that no relationship exists between neuroticism and levels of status updates.

Narcissism and Extroversion

Results supported a weak positive relationship between narcissism and extroversion. This relationship suggests that individuals high in narcissism might also display tendencies of extroversion. Research suggests that narcissists are often associated with displaying the personality trait of extroversion, but this does not make the traits mutually exclusive (Vazire et al., 2008). This might explain why there does not exist a stronger relationship.

Narcissism and Facebook

Results did not support a correlation between narcissism and frequency of disclosing information, customizing information, and self-expressing on Facebook. This is contrary to research from Bergman et al. that states that the self-promoting nature of the narcissist is represented in Facebook culture, actively encouraging narcissism in the user (2011). Post-hoc stepwise multiple regression analysis was used to determine other predictors for disclosure, customization, and self-expressive Facebook posts.

Disclosing information on Facebook was represented by the factor "News About Self." This factor included the items "Announcing notable events/activities in my life," "What my Facebook friends might find interesting," "Current events in my life," and "Family/Relationships." Post-hoc stepwise multiple regression analysis was previously run on

the News About Self factor in the "Offline Activities and Frequency of Facebook Use" section and yielded the same results.

Customized Facebook posts were represented by the Entertainment index. BFI-9 (I need someone to tell me that I've done a good job in order to feel good about my work) emerged as a predictor of frequency of Entertainment, accounting for 13.6 percent of the variance found. This suggests that individuals with a need for validation are more likely to customize their Facebook profile with regards to listing favorite books, movies, TV shows, etc.

The Extroversion index emerged as a predictor of frequency of Entertainment, accounting for 11.1 percent of the variance found. This suggests that individuals who are more extroverted are more likely to customize their Facebook profile with regards to listing favorite books, movies, TV shows, etc. This also suggests that there may be a misconception between correlating narcissism and extroversion, and further reinforces the idea that extroversion is a predictor of self-generated content rather than narcissism.

The results of the hypothesis are in line with McKinney, Kelly, & Duran's 2012 criticism of Buffardi & Campbell's 2008 study in which they argue that the basis for any claims of correlation between narcissism and Facebook use lacks empirical evidence. Buffardi & Campbell used the NPI, relating higher numbers on the scale to number of Facebook interactions, similar to how our correlation measured narcissism scores with levels of Facebook use. Buffardi & Campbell's study indicated no relation between quantity of information posted regarding the self and that profile owner's level of narcissism, similar to our study. Rather, narcissism was positively related to self-promoting posts as well as profile photo attractiveness.

Gender and Facebook Use

Gender appeared various times after conducting post-hoc stepwise multiple regression analysis as a possible predictor for Facebook use. After performing an independent sample t-test to determine if a relationship between gender and Facebook use existed, seven dependent variables emerged in which females showed significantly higher activity on Facebook in all seven areas than males. These dependent variables were the Exploring index as well as individual items "Announcing notable events/activities in my life," "What my Facebook friends might find interesting," "Current events in my life," "Commenting," "Liking," and "Weekly photo." According to research from Gonzales & Hancock (2008), users who engage in impression management work to create, maintain, and modify and image that reflects the ideal self. Our findings suggest that females are more likely than males to partake in impression management on Facebook. In a study from Strano (2008), when narcissism is measured for profile picture selection, females are most often concerned about attractive looks, while males are more concerned with portraying an image of being active and fun-loving. This aligns with our results, which show that females present a "weekly photo" significantly more often than males.

Practical Implications of Findings

While our research questions and the hypothesized significance of correlations between Facebook use and personality traits were largely unsupported in this study, the emergence of one significant predictor of Facebook use does suggest some practical application for social media researchers.

Results indicated that gender is a significant predictor for Facebook use, as opposed to the individual personality traits limited to this study. With seven Facebook activities emerging as more frequently utilized by females than males, we see that gender plays a significant role in

levels of self-disclosure on Facebook. This does not rule out the possibility that personality traits do not play a role in self-disclosure on Facebook, but rather that the personality traits of females differ from males when it comes to motivation to self-disclose on Facebook, and must be weeded out further.

Narcissism and extroversion can be ruled out as predictors of self-disclosure on Facebook according to our results. This may suggest that those individuals scoring high in narcissism already view themselves as superior, and therefore do not require external validation from peers to reinforce this perspective. Dewall, Maner, Deckman, & Rouby reveal that the narcissist on Facebook is driven more by a need for cognition. Recognition is insignificant to the narcissist as they already view themselves as inherently unique and special. Rather, as individuals with a self-avowed disposition for leadership, their recognition is generated by the self from feelings of superiority to others (2011).

Extroversion is not a predictor for self-disclosure either, while our post-hoc multiple regression indicated that the Loner index accounted for 21.6 percent of the variance for self-disclosure. This finding suggests that if an individual has tendencies for extroversion in the offline world, he or she does not have the same tendency online. Conversely, those displaying traits of being a "loner" will disclose more on Facebook, possibly compensating for their lack of extroversion and out-goingness in the offline world. These findings on narcissism and extroversion might prompt us to consider that individuals possessing traits in an offline environment will not necessarily display those same traits in an online environment. In fact, our results suggest that individuals exhibiting traits in an offline environment are likely to engage in the opposite behavior online, perhaps as a means to engage in behaviors they are uncomfortable with in the offline world.

Limitations

A main limitation of this study was the operationalization of the 25-item Big 5 Personality Test, found on psychologytoday.com. After implementing the test, there was no subscale to be found on how to decipher which questions were indicative of which of the five personality traits. Once reliability testing was performed on the questions, only two sets of scales out of nine had a Cronbach's α above 7.0 to be used as indexes (Loner and Extroversion). All other scales were too low to be used as indexes, so individual items were run in correlations. It will be important to replicate the present study employing a stronger version of the BFI.

The population sampled was not representative of the population as a whole. The majority of participants were between the ages of 18 and 22-years old, and all maintained a high school education pursuing higher education. This may explain how no relationship existed between amount of time spent on extracurricular activities/social life and time spent on Facebook. The millennial generation is the most immersed in Facebook and other forms of social media, and will find the time to engage in these platforms, while offline activities may affect older generations more considerably. The majority of the population sampled was white, so an equal representation of diverse races was not examined.

Since several of the survey questions on the BFI and NPI clearly indicated a negative connotation, there is the risk that participants did not answer honestly as not to associate themselves with a negative statement. For example, BFI-25 (If you were seated on a crowded bus and noticed an elderly person standing, would you give up your place?). Future research might explore a means to phrase questions in a manner that will not trigger participants to answer in a way that makes them feel self-conscious about their responses.

Future Research

Following the observation of the previously mentioned methodological and contextual limitations, there are several recommendations that might enable future research to explore personality traits as a predictor of Facebook use.

First, a more thoroughly tested and utilized version of the BFI ought to be used to ensure accurate results from participants, and greater ease in examining data. If reliability is higher, organization in SPSS will be easier since more indexes will be utilized rather than relying on individual scale items.

An attempt should be made to collect data for the study from a larger and more diverse sample so that conclusions can be drawn regarding the effect of Facebook use based upon personality traits. It would be wise to sample an entire community, or several communities. If possible, it would be wise to sample populations from different parts of the country, to possibly discover any difference in Facebook use based off of geographical location and culture. Since the population sample consisted overwhelmingly of white millennials, it would be advantageous to follow the example of a 2013 study on narcissism from Leung, in which he contends that cultural backgrounds may be an important factor in determining varying roles of narcissism. Future studies should consider empirical studies from a diversity of languages, ethnicities, and cultures.

By ruling out narcissism, extroversion, and neuroticism as predictors of Facebook disclosure, it would be wise to move on to other personality traits which may have an effect on disclosure. We saw from our multiple regression that the personality trait of "loner" was revealed as a predictor of disclosure. Since validation from peers is often a sought after commodity by Facebook users, self-esteem/insecurity with a need for validation might also be personality traits to explore as an explanation for Facebook disclosure. Dewall, Maner, Deckman, & Rouby

reveal that the narcissist on Facebook is more concerned with a need for cognition that recognition, already viewing themselves as unique and special (2011).

Mehdizadeh (2012) correlates a relationship between high levels of narcissism and low levels of self-esteem. Future researchers might consider testing personality traits simultaneously rather than individually to determine Facebook activity, as put forth by Skues, Williams & Wise in their literature on determining psychological effects of narcissism on Facebook.

Other questions concerning Facebook use might have been asked to reveal more about personality traits such as number of friends on Facebook. This is to utilize research from Bergman, Fearrington, Davenport, and Bergman (2011) who support the idea that narcissism can be identified by comparing Facebook friends to the amount of friends a user maintains in the offline environment.

Finally, this study suggests that gender plays a large role in determining Facebook activity and levels of disclosure on Facebook. Future research should delve deeper into this idea, and determine what personality traits between genders cause a differentiation between males and females, motivating each gender to disclose more or less information about themselves on Facebook.

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