ONLINE RISK BEHAVIORS

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ONLINE RISK BEHAVIORS

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ABSTRACT

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The widespread use of social network websites has made risky online behaviors salient to

friends, family, officials, and potential employers. The present study was undertaken to

investigate the potential of self-disclosure patterns, psychopathological personality

characteristics, gender, and risky behaviors in the ethical, social, and health and safety

domains to predict risky online behaviors. The Online Risky Behavior Questionnaire was

developed to assess the amount of risky behavior online by 102 male and 73 female

participants. Results of this study indicate that men are more likely than women to

endorse engaging in risky behaviors online. For both men and women, taking ethical and

health/safety risks, self-disclosing with more depth, and engaging in less impression

management predicted risky online behaviors. However, for men, another predictor was

antisocial personality characteristics. Women in the study were more likely to engage in

impression management than were men. Women who were more likely to intend to self-

disclose were also more likely to engage in risky social behaviors. New venues for social

interactions offer the opportunities for new patterns of self-disclosure and risk-taking

iv

behaviors, and it is important for the psychological sciences to keep pace with the

technological developments that inform our understanding of social behaviors. It is,

therefore, suggested that future studies investigate the links between self-disclosure,

socially-desirable reporting, gender differences, and risky online behaviors.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

The most popular internet social network websites (SNS) in the U.S. currently

include Facebook[©] (Karl, Peluchette, & Schlaegel, 2010), and this assertion is

substantiated by the website's most recently updated Statistics page, which boasts at least

one billion users worldwide (Facebook, 2012). Facebook enables a user to self-disclose

personal information, including email addresses, city of residence, blog-like 'posts' (or

'status updates'), and pictures, all of which can be viewed by any number of other people.

Facebook and other SNS are, by definition, social domains that may become venues for

keeping in touch with others, networking for professional purposes, and, for some,

venues for personal venting. The comments made or pictures uploaded may be subject to

scrutiny by employers, teachers, professors, parents, and other authority figures. Some

news story examples include exposés about individuals who were fired for posting

comments about employers ("Waitress axed," 2010; Hananel, 2010), and users who were

subject to legal and ethical sanctions for comments regarding their own engagement in

unlawful sexual relationships (Chiramonte & Gonen, 2010) or for uploading ethically

objectionable material (Bryan, 2010; Hadid, 2010). These few instances highlight only

the most widely-publicized stories about behaviors which occurred on Facebook, in 2010,

and do not include other SNS sites (e.g., Twitter©) or other years. Furthermore, Karl and colleagues noted that employers are increasingly using SNS and internet search engines (e.g., Google©) to investigate job candidates, which highlights one of the long-term consequences of engaging in such risky behaviors online, possibly including undesirable views of a job candidate.

Defining risky online behaviors

Nosko, Wood, and Molema (2010) noted that behaviors on Facebook that might constitute a "threat" included those that might expose a person to identity theft, such as including one's phone number, address, and date of birth in a profile that could be viewed by anyone else. Nosko and colleagues also stated that "another kind of threat is social threat or potential danger to the self [...] such as contact information, sexual orientation, group membership, religious affiliation, and political affiliation [...] all details that can potentially be used to harm and stigmatize an individual" (p. 408). Karl and colleagues examined behaviors on Facebook that were hypothesized to impact a candidate's employability, including posting nude self-photos, comments regarding the use of illegal drugs, and comments regarding sexual activities.

It could be reasoned, therefore, that any online behavior which may result in loss in any domain (e.g., health, occupational, financial, social) can be considered risky. The factors which may be involved in an individual's decision to engage in risky online behaviors are the focus of the present study, and include personality and gender factors, self-disclosure patterns, and the perception of risk.

Charting gaffes on Facebook

In recognition of the alarming trend toward risky online behaviors which has been reported by the news media, Karl et al. (2010) hypothesized that personality traits would provide the mediating effects on whether or not individuals would post some risky personal information online. Karl and colleagues decided to focus on the five factor theory of personality, which proposes that five discrete domains of behaviors (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism) combine to represent the individual's personality as a whole (McCrae & Costa, 1987). Karl and colleagues also posited that individuals who rated higher on scores indicating compulsive internet use, would be more likely to post what they termed a "Facebook *faux pas*" (p. 174), or risky information (e.g., nude self-photo). These researchers proposed that there would be a cultural difference between respondents in the United States and in Germany, such that respondents in the United States would be more likely to engage in risky online behaviors. A survey was designed to incorporate measures of personality, the use of SNS, compulsive internet use, and the kinds of personal information that respondents made available to others on the SNS (e.g., photo of self drinking alcohol; Karl et al.). The survey was completed by 433 undergraduate students in the United States and 304 undergraduate students in Germany.

The results indicated that the German respondents were less likely to engage in risky online behaviors than the United States respondents, and that those whose scores indicated compulsive internet use were more likely to commit a Facebook *faux pas* (Karl et al., 2010). Furthermore, analyses pointed to significant differences in personality

3

factors, such that individuals who scored higher on measures of emotional stability, agreeableness, and self-discipline, or careful forethought were less likely to engage in risky online behaviors, regardless of nationality (Karl et al.). Karl and colleagues concluded that some risky online behaviors (e.g., posting nude self-photos or comments regarding self-use of drugs) may be acceptable, if not desirable by some. Therefore, an individual's perception of desirable social behaviors may contribute to the likelihood of engaging in risky online behaviors (Karl et al.). The authors also suggested that some of the individuals who participated in these studies (i.e., undergraduate students) may be less mature or less focused on being employable, given their ages, and, thus, not concerned about the potential future use of this information against them.

Karl and colleagues (2010) emphasized that being a user of an SNS inherently involves decisions about how people manipulate or manage their self-presentation. That is, an individual in an online community is actively engaged in presenting the self to others in a particular way that is hoped to convey specific ideas, values, appearances, and so forth. In this process, the individual shares information about the self with others. This sharing of information has also been called self-disclosure.

Nosko, Wood, and Molema (2010) investigated the kinds of information that are included in users' Facebook profiles and what factors (e.g., age, gender) were related to the self-disclosure of such information in the users' profiles. The profile options included information such as marital status, date of birth, as well as school and work history, and political views. Nosko and colleagues noted that the inclusion of this type of information constitutes self-disclosure, and opens a user to risk of identity theft as well as social

stigmatization based on religious and political affiliation, and sexual orientation. They developed a survey to investigate what kinds of information were included in a user's Facebook profile. The survey included 100 items representing the options for information to include on a user's Facebook profile. They used a sample of 400 profiles from four Canadian university networks and four Canadian communities. The results of the first part of the study suggested that users were less likely to include home addresses, phone numbers, and former names, but were more likely to include other information that made users identifiable (e.g., gender, pictures), information about users' social connections (e.g., friends), and also status updates (Nosko et al.).

Using these results in the second part of their study, Nosko and colleagues (2010) formulated three categories of disclosures within Facebook profiles: Personal identity information (e.g., gender, day of birth), sensitive personal information (e.g., email address, profile picture), and potentially stigmatizing information (e.g., sexual orientation, interests). Comparisons were performed to determine the effects of gender, relationship status, age, and the kind of network (i.e., university or other community) of the user on whether information for each of the three disclosure categories was more or less likely to be included (Nosko et al.). The results suggested that users who were more likely to include gender, relationship status, and age in their profiles were more likely to include information for the three disclosure categories (Nosko et al.). Furthermore, the more likely a user was to disclose a relationship status of "single," the more the user self-disclosed in all three categories (Nosko et al.). As the age of the user increased, the less likely the user was to disclose in all three categories; thus, the study suggests that there

may be an interaction of a user's age and the kind of information that is disclosed. For gender, however, there was a lack of expected differences in amount of information that was disclosed in the profiles (Nosko et al.). It should be noted that the sample Nosko and colleagues used in the study was drawn from profiles which were open to the public, and the fact that the profiles could be viewed by the general public (i.e., did not employ security measures) suggests that the sample was drawn from a population that is inherently prone to engage in risky online behavior.

Nosko and colleagues (2010) were less interested in the risky status updates and pictures than were Karl et al. (2010); however, both studies indicated the importance of investigating risky online behaviors, particularly with respect to the self-disclosure of highly personal information. The more traditional models of self-disclosure conceptualize patterns of disclosure, rather than categories of disclosure, as in the Nosko et al. study, and this may prove to be an important distinction. It may also be important to revisit older self-disclosure models, as new mediums of communication, such as social networking websites, may enable new patterns of communicative behavior.

Self-Disclosure

Definition and Brief History. The term "self-disclosure" represents a construct with multiple operational definitions. Cozby (1973) described self-disclosure as a behavior in which one individual imparts personal information to another individual, particularly when forming or maintaining relationships. For clinical psychologists, self-disclosure is an event in which a therapist tells a client personal information specific to the therapist's life, and is generally used sparingly (Stricker, 2003). Stricker, however,

6

notes that self-disclosure can exist in a multitude of situations or settings particular to individuals. For example, self-disclosure may also be encountered in clinical settings, when the client discloses information to the therapist, contrary to the classical clinical conceptualization. The authors of the present study utilized Cozby's definition: Self-disclosure is a behavior characterized by revealing feelings, thoughts, or knowledge about the self to friends, family, intimate partners, or even complete strangers, in any setting (e.g., SNS, face-to-face). This definition is consistent with Nosko and colleagues' (2010) definition, as well; however, the conceptualization of the particular constructs of self-disclosure differs, in that the present authors employed the more traditional models of Wheeless and Grotz (1976) and Rosenfeld (1979).

In 1976, Wheeless and Grotz designed an instrument to assess the likelihood that an individual would engage in self-disclosure. The instrument, a 31-item inventory measures self-reported disclosure across five dimensions: Awareness of disclosure ("intent"), positive or negative statements, depth of disclosures ("depth"), frequency and length ("amount"), and honesty. Rosenfeld (1979) found that two items in this scale represented a separate factor, which he described as a lack of control over self-disclosure ("control"). On the other hand, Rosenfeld was actually interested in why an individual might choose *not* to self-disclose, and whether there would be a gender difference in self-disclosure patterns. As such, Rosenfeld developed the18-item Self-Disclosure Avoidance Scale.

The results of Rosenfeld's (1979) study not only provided reliability and validity measures for both instruments, but also provided some of the first published empirical

findings regarding the differences in self-disclosure patterns between men and women. Rosenfeld suggested that men were more likely to avoid self-disclosure in an effort to preserve their self-image, since self-disclosure of personal or intimate information might challenge them to make personal changes. Men were also suggested to engage in self-disclosure avoidance in order to maintain perceptions of control over themselves and situations. Women, on the other hand were more likely to endorse items which conveyed concerns about maintaining positive impressions of themselves in others. Rosenfeld interpreted these results as suggesting that women who avoided self-disclosure did so to avoid physical and emotional harm, or, in other words, to reduce risk.

Self-Disclosure in Online Behaviors. The advent of computer-mediated communication (CMC), in which individuals communicate via electronic mail (email), on SNS, or in instant messaging formats has sparked an explosion of research in many disciplines, including communications and psychology. Indeed, some authors have speculated about online behaviors that pertain specifically to self-disclosure (e.g., Suler, 2004). Suler posited that individuals may exhibit different patterns of communication in CMC than in face-to-face (FTF) settings, and has dubbed this the *online disinhibition effect*. Drawing on research by other authors, Suler asserted that people communicate in a more direct, and even more aggressive manner in CMC than in FTF settings, and that these individuals may engage in a style of self-disclosure which they later regret. For example, Barak, Boniel-Nissim, and Suler (2008) opined that an individual might use "rude language, harsh criticism, anger, hatred, and even threats" while communicating online (p. 1870). However, Suler and Barak and colleagues offered no empirical data of

their own regarding this effect, and many of the ideas, interpretations, and conclusions regarding this effect are easily refutable. For example, Suler posited that identifying information in CMC, such as email addresses and user names provides a level of anonymity that might allow an individual to feel more comfortable with self-disclosing potentially damaging information. However, this so-called dissociative anonymity hypothesis was not directly tested, and it remains unclear whether this effect is viable, or alternatively, if individuals who send and receive email actually know the individuals with whom they communicate via email, and vice-versa. If so, they would not be anonymous, and the online disinhibition effect would not be supported.

Although Suler's (2004) efforts were not empirically supported, they did provide potential research questions and directions. For example, since self-disclosure is a complex construct with a wide range of antecedents and consequences, one may develop a curiosity not only about the type of information an individual is willing to disclose in a particular setting, but also about what factors are involved in an individual's decision to disclose personal information in SNS settings.

Lee, Im, and Taylor (2008) conducted both qualitative and quantitative exploratory analyses in an effort to ascertain the motivations for, and the outcomes of, online self-disclosure on blogs with students at a South Korean university. Lee and colleagues postulated that a positive consequence of self-disclosure online was the ability to disclose information in CMC that is difficult to disclose in FTF settings, and that this ability might enhance relationships. Lee and colleagues developed a questionnaire that was based on qualitative data from interviews with a very small sample. The quantitative

9

data were not subjected to a factor analysis prior to the development of the questionnaire. The study found that the consequences of the online self-disclosure factor were significant, such that self-disclosures about difficult topics was rated as easier to engage in using CMC versus FTF; however, these results may be qualified as being due to voluntary online self-disclosure by the bloggers who were recruited to participate in the study. At best, this study is similar to Suler's (2004) article in that it provides a base from which to expand research into online self-disclosure.

Cho (2007) averred that self-disclosure is an inherent construct in CMC, as self-disclosure is often necessitated by interpersonal relationships. Cho was particularly interested in the effects of gender on self-disclosure, the motivational factors which affect the decisions to use CMC, and what differences in self-disclosure might exist between CMC and FTF settings. Cho constructed a questionnaire to assess the effects of these motivation factors, and also used Rosenfeld's (1979) self-disclosure scale. Cho employed a large sample of participants from a South Korean high school who had a history of engaging in online chatting with others who they did not know (e.g., strangers in chat rooms) to complete the questionnaires. The results suggested that both male and female adolescents were more likely to disclose more often, in greater depth, and in a more positive way in FTF settings. Male adolescents were also more likely to disclose with increased honesty, and were less likely to intend to self-disclose in FTF settings. Furthermore, the results suggested that both male and female adolescents self-disclosed with equal amounts of intention in both CMC and FTF settings. Male adolescents also

tended to be more honest in their disclosures in both FTF and CMC settings than did

female adolescents.

A lack of differences in self-disclosure across settings, and a gender difference in

only one self-disclosure domain offer a contrast to the online disinhibition effect (Suler,

2004) and Rosenfeld's (1979) findings on self-disclosure, respectively. Moreover, Cho's

(2007) results offer a contrast to Lee and colleagues' (2008) result that self-disclosure

was more likely to happen in a CMC setting.

Chiou and Wan (2006) sought to examine what differences might exist between

male and female adolescents in sexual self-disclosure online, as well as to explore what

gender differences might exist in sexual self-disclosure in CMC versus FTF interactions.

The Sexual Self-Disclosure Scale for Taiwanese Adolescents (SSST) was designed for

testing these exploratory questions. The survey was completed by 207 participants,

between the ages of 16 and 25, who indicated how likely they would be to disclose sexual

information, and this survey allowed for measures of the breadth (e.g., likelihood of self-

disclosing) of self-disclosure as well as the depth (e.g., level of intimacy) of self-

disclosure. The results suggested that there was no difference in the likelihood of self-

disclosure between CMC and FTF settings for male and female adolescents, but that there

was a significant difference in the level of intimacy between settings, such that more

intimate information was disclosed in FTF rather than in CMC settings, irrespective of

gender. On the other hand, the effect of gender was significant, such that male

adolescents were more likely to self-disclose sexual information and with higher levels of

intimacy than were female adolescents, regardless of the setting. This finding appears to

11

be consistent with Cho's (2007) findings, which suggest that men self-disclose in a different way than women in both settings.

To date, few empirical studies have examined self-disclosure behaviors on the internet with regard to risky online self-disclosure beyond those by Karl et al. (2010) and Nosko et al. (2010). Moreover, Nosko and colleagues did not classify self-disclosure based on the traditional self-disclosure models provided by Wheeless (1976) and Rosenfeld (1979). Those factors that may play a role in the risky self-disclosure of personal information online, within the context of the more traditional self-disclosure models, include cognitive factors (e.g., appraisals of risk), personality factors, and gender.

Risk and perception across domains

In contemporary cognitive and motivational psychology, approach-avoid theory suggests that individuals who perceive risk in a situation may choose to avoid that situation, and that when a situation is assessed without a perception of risk, individuals may choose to approach that situation (Burgoon, 1976; Franken, 2002). Alter and Oppenheimer (2009) found that participants responded in a socially desirable way to a computer-administered survey which was difficult to read ("disfluent"). The results suggested that the participants' unwillingness to disclose their true opinions in the study reflected an increase in an assessment of risk in disfluent conditions (Alter & Oppenheimer). Furthermore, these results could suggest that it may be common to be apprehensive about the risks associated with privacy and self-presentation concerns. To address these concerns, savvy programmers and software companies routinely create or

update software and programs to incorporate protective security measures which guard against the threat of hackers and computer viruses. These security measures have been assimilated into the SNS domain, as websites like Facebook have security preference settings which are readily accessible to users who can determine those others who can view certain information.

Tufekci (2008) investigated the individual differences in the use of security settings, as well as other factors which may contribute to the decision to utilize SNS. More specifically, in SNS engagement, Tufekci was interested in the application of a motivational theory of expressive use, in which the motivation to use a tool or device is attributed to social expression needs satisfaction (e.g., relationship building, self-presentation) rather than for obtaining information (i.e., instrumental use). The most robust finding in this study was a gender difference in the results, such that women were up to five times more likely to use SNS, overall, regardless of motivation for use. Tufekci also found that concerns about privacy represented a factor in deciding to engage in SNS use, such that increased concerns about privacy were associated with decreased SNS membership. However, it should be noted that whether or not non-users of SNS were aware that there were customizable settings available on the SNS was not investigated; thus, potential users may have refrained from utilizing SNS due to a lack of knowledge combined with concerns about privacy. It still remains to be shown how these factors may influence an individual's use of SNS, and whether an individual perceives risk in online behaviors even when the customizable security setting controls are employed.

Consequently, perception of risk may as easily depend on the perception of the situation as a whole as it does upon a participant's pattern of engaging in risky behaviors.

 Assessment of Risk. Blais and Weber (2006) noted that extant literature on risk had identified five particular domains in which risk may be likely to occur: social, recreational, financial, ethical, and health/safety. For example, in the financial domain, an individual may have to make decisions based on perceptions of risk of loss or gain of funds. To assess the probability that an individual would engage in risky behaviors across the five domains, Blais and Weber created the Domain-Specific Risk-Taking scale for adults (DOSPERT), a 30-item scale in which respondents endorse the likelihood that they will engage in risky behavior in each of the five domains. For example, the statement, "engaging in unprotected sex," was included as a health/safety item, and the statement, "bungee jumping off a tall bridge," was included as a recreational item (p. 46). Overall, the results from samples of 172 English-speaking participants and 187 French-speaking participants, in Quebec, indicated that as perceptions of risk within a given domain increased the probability that an individual would engage in risky behaviors decreased. Perhaps more importantly, results showed that variability in the perceptions of risk (and, therefore, endorsement of risk behaviors) in the given domain were due to individual differences.

 Although the findings of Blais and Weber (2008), Tufekci (2008), and Alter and Oppenheimer (2009) are compelling, cognitive factors such as perceptions of risk and decision making may be of little interpretive value without other information. For example, if an individual perceives self-disclosure of risky personal information on SNS

14

as a risky behavior, and yet still engages in that behavior, it will need to be determined what drives this decision, as evidence-based logic would more generally dictate that increased perceptions of risk may constitute a cognitive appraisal of avoidance of, rather than approach to the situation. Therefore, other factors, such as personality factors are a potential source of information that may aid in the understanding of why an individual might engage in risky online behaviors.

Personality and Risk

   The Five-Factor Model Approach. The five factor model (McCrae & Costa, 1987) of personality is frequently utilized as the model of choice for many researchers; however, the findings of such studies have often been inconclusive or minimally successful in attempts to identify personality factors which contribute to CMC (Karl et al., 2010; Ross et al., 2009). The five factor model is widely used for research, and divides personality traits into five distinct, yet broad categories: (a) Neuroticism, or the tendency to experience negative emotions; (b) Openness, or the tendency to engage in an active fantasy life, to feel emotions more deeply, and to place a high value on ideas, values, and aesthetics; (c) Agreeableness, or the predisposition toward trusting others and being modest; (d) Conscientiousness, or the propensity for order, self-discipline, and careful forethought; and (e) Extraversion, or the tendency to be socially outgoing and to engage in sensation seeking (Matthews, Deary, & Whiteman, 2003; McCrae & Costa, 1987).

   Ross and colleagues (2009) set out to provide a model of Facebook users based on the five factor model of personality proposed by McCrae and Costa (1987). A sample of

82 female and 15 male students completed the NEO-Personality Inventory-Revised

(NEO-PI-R; Costa & McCrae, 1992) assessment for McCrae and Costa's five personality

factors. Participants also completed a Facebook Questionnaire designed by Ross and

colleagues that assessed two factors: Attitudes, which describes perceptions of the utility

of Facebook, and Online Sociability, which describes Facebook use habits (e.g.,

frequency of posting or sending messages). The results were such that the higher the

score on Openness, the more an individual reported using Facebook for Online

Sociability. Conversely, lower scores on the Openness measure were found to have a

modest positive relationship with a higher degree of knowledge regarding CMC. There

were no significant effects of any other personality factor. Ross and colleagues suggested

that the dearth of significant effects of personality factors resulted from the use of the five

factor model, which may be too broad to identify relevant traits in the use of CMC, and

that using pathological personality traits to classify online behaviors might be warranted.

The five factor model was also considered by Karl and colleagues (2010) for its

potential to explain why people might post risky personal information on Facebook.

Large samples of 346 U.S. undergraduate students and 290 German undergraduate

students completed Goldberg's Unipolar Big-Five Markers (1987) and a survey designed

by Karl and colleagues to assess Facebook behaviors. Goldberg's Unipolar Big-Five

Markers has been found to have strong correspondence and concurrent validity with the

NEO-PI-R (Gow, Whiteman, Pattie, & Deary, 2005; Zheng, Goldberg, Zheng, Zhao,

Tang, & Liu, 2008).The study revealed that the lower an individual scored on indices of

emotional stability (Neuroticism), agreeableness, and conscientiousness, the more likely

16

the individual was to have posted risky information, independent of nationality. Karl and colleagues also reported significant differences for culture, such that participants in the U.S. were more likely to post risky information than their German counterparts, independent of the effects of personality factors. Although age and gender differences were indicated as significant in the hierarchical regression, the direction and relationships were not clarified.

The findings regarding the effects that the five factors of personality may have on posting risky information are inconsistent, as Ross and colleagues (2009) found only Openness to be a significant predictor in only CMC use, and Karl and colleagues (2010) found only Neuroticism, Agreeableness, and Conscientiousness to be significant predictors in posting risky information online. Additionally, different instruments were used to measure the five factors in each study, and while these measures have demonstrated validity in measuring the same constructs, this fact nevertheless increases the difficulty in generalizing the findings of the studies. Part of the overall issue regarding the ability of the five factors to predict behavior may be an artifact of interpretative hypotheses about what kinds of behaviors might prevail online for a given personality trait. Despite this possibility, the ability of a factor to produce significant results across studies has not been demonstrated, and it would be expected that the results would be similar. It is, therefore, necessary to investigate more pathological personality factors in online behaviors, consistent with the suggestion by Ross and colleagues.

Psychopathological personality traits. The American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition -Text

Revision (DSM-IV-TR; 2000) states that the Cluster B Personality Disorders are characterized by "dramatic, emotional, or erratic" behaviors, and this cluster includes Antisocial, Borderline, Histrionic, and Narcissistic Personality Disorders (p. 685). These behaviors may be consistent with the tendency to disclose risky personal information, as each of these personality disorders also include diagnostic criteria which might be related to higher rates of disclosure of such information, such as impulsivity (Antisocial and Borderline), provocative behaviors (Histrionic), a discomfort with not being the focus of attention (Histrionic), and a need for excessive admiration (Histrionic and Narcissistic). The DSM-IV-TR also contains Cluster C Personality Disorders, which broadly categorize personality based on the propensity to be afraid or anxious, and which include Avoidant and Dependent Personality Disorders. Patterns of online behavior consistent with Avoidant Personality Disorder may characterize an aversion to SNS, in general, as individuals with this disorder may be reluctant to engage in social activities and may have a heightened sensitivity to criticism. Conversely, persons with Dependent Personality Disorder are likely to be submissive and afraid of becoming separated from those that care for them; therefore, they may engage in higher rates of posting risky information online out of a need to be cared for or out of submission to the whims of others.

The traits of the Cluster B and C disorders are described in the diagnostic personality disorder criteria (APA, 2000), and their respective roles as predictors of the disclosure of risky information are of particular interest in the present study. Some evidence for the role of these traits is also evident in recent research on risk. For example, Campbell, Goodie, and Foster (2004) linked Narcissism, overconfidence, and attitude

toward risk by employing a questionnaire containing 150 general knowledge items and the Narcissistic Personality Inventory (NPI), which is based on the DSM-III (APA, 1980) criteria for Narcissistic Personality Disorder. Campbell and colleagues had participants concurrently rate their level of confidence regarding the accuracy in answering each question. In the second of three experiments in the study, 97 participants were allowed to bet on the accuracy of their answers to the general knowledge questions. If a participant was accurate, 100 points were awarded to the participant, but the more confident a participant felt in an incorrect answer, the more points were removed from the score. The results indicated that higher scores of narcissism predicted overconfidence, as well as predicting a higher rate of risk-taking (Campbell et al.). In the final of the three experiments, 607 university student participants were administered the NPI and general knowledge questionnaire; however, participants were also asked to rate how well they believed they would perform before the task, how well they believed they were performing during the task, and how well they expected to perform on future tasks, given their current performance. When completing the rating of future performance, participants were made aware of their current score. In this last experiment, individuals scoring higher on narcissism were again found to be overconfident; however, risk-taking was reduced. Campbell and colleagues suggested that this result was evidence that those scoring higher on narcissism are overconfident in their predictions of self-performance, but that these predictions are modified as feedback is gathered and taken into consideration when making further predictions.

It is interesting to note that the risk-taking behaviors of people with higher scores on an index of narcissism may be a function of feedback; however, in the online medium, feedback may not be immediate or transferable from situation to situation. Campbell and colleagues (2004) provided evidence that traits of one personality disorder may be related to higher risk-taking, and further examination of a broader range of psychopathological personality traits is necessary when considering risky online behaviors.

Gender

In their study of personality factors in the motivation for CMC use, Ross and colleagues (2009) were unable to examine gender differences due to the use of a sample which was more heavily represented by women (82) than men (15). However, as evidenced by the results reported by Tufekci (2008), there may be a significant difference between men and women in the probability of using SNS, such as that indicated by women in the Tufekci study who were up to five times more likely to use SNS. Gender may also have an impact on decisions to self-disclose online. Cho (2007) found that male adolescents tended to be more honest than female adolescents in CMC settings. This finding might also suggest that male adolescents engage in less impression management in CMC settings. Moreover, Chiou and Wan (2006) found that male adolescents were more likely than were female adolescents to disclose sexual information, with an increase in level of intimacy. Overall, Nosko and colleagues (2010) found no differences between men and women in the type of disclosures made on Facebook profiles. Given the results of these studies with respect to gender, it will be important to determine if gender also plays a factor in risky online self-disclosure patterns.

The Present Study

The present study examined SNS behavior in a college-age population. Measures related to motivation, cognition, personality, and gender were used to evaluate risky online behaviors. Respondents completed a demographic questionnaire, a personality questionnaire, an online risky behavior questionnaire, an abbreviated self-disclosure scale, a risk assessment scale, and a social desirability reporting inventory.

Self-disclosure is a behavioral construct in which relationships are gained or maintained, and, as such, it can be argued that it represents an approach-avoid motivational behavior. The relevant self-disclosure research is limited in that it has not controlled for, or considered the interactions of, personality, socially-desirable reporting, and risk in the online behaviors of respondents. The present study sought to investigate how self-disclosure behaviors are related to risky online behaviors.

Research into online behaviors has generally not assessed the risk appraisals of individuals who engage in SNS. For example, only two published works were found to have considered the use of security settings in SNS, and these studies included only a few survey items relevant to that effect (Tufekci, 2008; Ross et al., 2009). Furthermore, based on the theory of framing, it is worth considering the ways in which an individual appraises the SNS environment with respect to risk, and this has not yet been reported in the extant literature. The present study sought to investigate how risk-appraisal behaviors are related to risky online behaviors.

The general consensus of the studies which have investigated online behaviors in the context of personality traits or characteristics is that the five factor model of

personality may be too broad a measure to capture the effects of personality in online behaviors (Karl et al., 2010; Ross et al., 2009). To that end, some of the research (e.g., Ross et al.) recommends that pathological personality constructs may be of use, such as those found in Narcissistic, Antisocial, Borderline, Histrionic, Avoidant, and Dependent Personality Disorders. The present study sought to investigate how psychopathological personality constructs are related to risky online behaviors.

Studies which have investigated the effects of gender on SNS use have produced incomplete interpretations (Karl et al., 2010; Tufekci, 2008). Furthermore, some studies on risk have either not controlled for gender, or have not reported findings pertaining to this construct (Blais & Weber, 2006). The present study sought to investigate what effects gender has on risky online behaviors at all levels and within all components of the analyses.

In summary, I hypothesized that the probability that an individual would disclose risky personal information on a SNS would increase as a function of willingness to take risk, self-disclosure behaviors, and psychopathological personality characteristics. Specifically, there are six hypotheses that drove the present research. First, I hypothesized that risky online behaviors would be positively related to engagement in risky behaviors in situations across several domains. Second, I hypothesized that gender would have an effect on the likelihood to engage in risky online behaviors, such that men will be more likely to demonstrate increases in those behaviors. Third, I hypothesized that risky online behaviors would be positively related to psychopathological personality characteristics. Fourth, I hypothesized that risky online behaviors would be positively

related to self-disclosure behaviors. Fifth, I hypothesized that as scores on the Online

Risky Behavior Questionnaire (ORBQ; Karl et al., 2010) increased, scores on the Self-

Deceptive Enhancement domain of the Balanced Inventory of Desirable Reporting

(BIDR; Paulhus, 1994) would increase, and scores on the Impression Management

domain would decrease. Finally, I hypothesized that as scores on the Domain-Specific

Risk-Taking Scale (DOSPERT; Blais & Weber, 2006) increased, scores on the intent

domain of the Abbreviated Self-Disclosure Scale (Rosenfeld, 1979) would decrease.

CHAPTER II

METHOD

Participants

One hundred eighty-two undergraduate students (105 men, 76 women, 1 bi-gendered), who ranged in age from 18 to 23 years-old ($M = 19.4$ years) and who were enrolled in Introduction to Psychology courses at the University of Dayton, were recruited through the University's online recruitment system to participate in the present study in exchange for research credit. All participants were coded with randomly assigned 4-digit numbers appearing on the testing materials, and researchers were blind to the participants' identifying information.

Materials

There were six measures used in the present study. These included a demographic profile questionnaire, the Online Risky Behavior Questionnaire (ORBQ), which was developed by Karl and colleagues (2010) and revised by the present author, the Domain-Specific Risk-Taking Scale (DOSPERT; Blais & Weber, 2006), the Personality Diagnostic Questionnaire - 4 (PDQ-4; Hyler, 1994), an abbreviated version of the Rosenfeld's Self-Disclosure Scale (1979), and the Balanced Inventory of Desirable Reporting (BIDR; Paulhus, 1994).

Demographic Profile Questionnaire. The demographic profile questionnaire asked about age, gender, year in college, and whether or not the respondent has a Facebook account. (See Appendix A for the complete demographic profile sheet.)

Online Risky Behavior Questionnaire (ORBQ). The Online Risky Behavior Questionnaire (ORBQ) is a 42-item survey, with a 7-point Likert-type response scale ranging from 1 ("Extremely Unlikely") to 7 ("Extremely Likely"), all of which indicate the likelihood that an individual may engage in specific behaviors in the utilization of SNS. The item statements include 36 based on questionnaire items used by Karl and colleagues (2010). These items were modified from the items listed in the Karl and colleagues article to include grammar and syntax. For example, the item listed as, "Self-photo with firearms" (p. 180), was modified to read, "I would upload a photo of myself with firearms," and an item listed as, "Birth date" (p. 180), was modified to read, "I would include my birth date in my profile." Karl and colleagues found reliabilities for their instrument to be .86 and .78, in US and German samples, respectively. Five of the added items, such as, "I would post comments which include the use of profanity," were designed to explore risky online behaviors not included in Karl and colleagues, and which were thought to be associated with negative outcomes (e.g., job loss, social rejection) of those behaviors. Fifteen of the 42 total item statements reflect risky behaviors, and the remaining 27 items are relatively non-risky behaviors (e.g., "I would upload pictures of my pet"). The non-risky items were used as control items. The endorsement for all 15 risky items was summed for a final risk sub-total ORBQ score, with a range of 15-105. (See Appendix B for the ORBQ.)

25

Domain-Specific Risk-Taking Scale (Blais & Weber, 2006)*.* To examine risk-taking tendencies, we employed the Domain-Specific Risk-Taking Scale (DOSPERT) in the present study. This scale divides risk-taking behaviors into six distinct domains of behaviors: Ethical, Social, Recreational, Health and Safety, and Financial. The scale utilizes a 7-point Likert-type response format, which ranges from 1 ("Extremely unlikely") to 7 ("Extremely likely"). For the present study, 24 of the original 30 items were used: six items each in the Social (e.g., "Disagreeing with an authority figure on a major issue"), Recreational (e.g., "Going camping in the wilderness"), Health/Safety (e.g., "Drinking heavily at a social function"), and Ethical (e.g., "Revealing a friend's secret to someone else") domains. The Recreational domain items were used to control for response bias, and were not included in the final analyses. Items were selected for use based on the likelihood that a respondent had had an opportunity to engage in the behaviors described in each item. For example, the Financial domain is not represented by any items in the present study due to the probability that an undergraduate respondent had not had the opportunity to engage in financial investing as it is described by the items in the DOSPERT.

For internal consistency, Cronbach's alphas for the 2006 English version of the DOSPERT are reported to range from .71 - .86, by domain, and for the French version to range from .57-.82, by domain (Blais & Weber, 2006). Overall, Blais and Weber found Cronbach's alphas to range from .66-.84 across English and French samples. For overall internal consistency, Cronbach's alpha was reported as .88 for the 2002 version (Weber, Blais, & Betz, 2002). Test-retest reliability correlations for the 2002 version ranged from

a low of .44 (Financial domain) to a high of .80 for the Recreational domain (Weber et al.). Validity studies by Weber and colleagues found discriminant validity of the domain constructs when compared to the Kogan and Wallach (1964) choice-dilemma scale. Weber and colleagues also found that convergent validity was demonstrated by comparing the Social and Recreational domains to Zuckerman's (1994) sensation-seeking scale, and the Ethics and Health/Safety domains to Paulhus' (1994) Balanced Inventory of Desirable Reporting. (See Appendix C for the complete DOSPERT.)

Personality Diagnostic Questionnaire–4 (Hyler, 1994)*.* The present study used 56 of the 99 items of the Personality Diagnostic Questionnaire - 4 (PDQ-4), which measures the psychopathological characteristics associated with the criteria of DSM-IV-TR (APA, 2000) personality disorders (PD). Specifically, the present study examined the presence of Histrionic, Antisocial, Borderline, and Narcissistic PD characteristics, which are categorized as Cluster B disorder traits, and Avoidant and Dependent PD characteristics which are categorized as Cluster C disorder traits of the DSM-IV-TR. The endorsement of any item by a respondent indicates that a criterion for the specific PD that the item represents is present. There are seven items for Avoidant PD, eight items, each, for Dependent, Antisocial, and Histrionic PD, and nine items for both Borderline and Narcissistic PD. The PDQ-4 is presented and scored in a binomial format (True-or-False answers), and the answers were coded as "1" for true and "0" for false during scoring for all PD other than Avoidant, which was reverse-coded. Two items (numbers 54 and 55) include checklists of behaviors, which, when endorsed, indicate the clinical significance of criteria for Borderline (54) and Antisocial PD (55); however, only the true or false

27

responses to these items were used in analyses. This questionnaire also contains measures of inaccurate responding, called the "Too Good" and "Suspect Questionnaire" scales. There are four items for the "Too Good" scale, which include, "I have never told a lie," and two items for the "Suspect Questionnaire" scale, which include, "A nuclear war may not be such a bad idea." The responses to these True-or-False items were coded as "1" for true and "0" for false.

For internal consistency, Cronbach's alpha coefficients in one study were found to average .65, and included alphas of .51 for Antisocial, .64 for Histrionic, .70 for Narcissistic, .73 for Borderline, .80 for Avoidant, and .83 for Dependent PD (Charbol, Rousseau, Callahan, & Hyler, 2007). A Test-Retest reliability range of .62-.75 was reported by Trull, Goodwin, Schopp, Hillenbrand, and Schuster (1993) using the PDQ-R. Finally, the PDQ-4 has been demonstrated to have a high rate of sensitivity and a medium rate of specificity in validity studies that compared the PDQ-4 to the Structured Clinical Interview for DSM-IV Axis II Disorders (Davidson, Leese, & Taylor, 2001; Hyler, Skodol, Kellman, Oldham, & Rosnik, 1990; see Appendix D for the complete PDQ-4).

Abbreviated Self-Disclosure Scale. The present research utilized a 23-item questionnaire, using items from Rosenfeld's (1979) factor analysis revision of Wheeless' (1976) Self-Disclosure Scale. Rosenfeld found that Wheeless' scale contained six factors regarding a person's disclosures: intent to disclose (Intent), length and frequency of disclosure (Amount), habitual positive or negative statements about the self (Positive-Negative), perceptions of control regarding the depth of disclosures (Depth Control), and honesty, and perceptions of control over intent (Lack of Control). Items that loaded on

the same factor were grouped together in Rosenfeld's study. In the present study, the items in the questionnaire were presented in a randomized format to control for response bias. The scale utilizes a 7-point Likert-type response format, ranging from "1" (Never) to "7" (Always).

The 23 items were selected from the original 30 items of Rosenfeld's (1979) revised self-disclosure scale. Rosenfeld (1979) found factor loadings ranging from .67 to .76 for the three Intent domain items, .47 to .78 for the seven Amount domain items, .51 to .82 for the seven Positive-Negative domain items, and .54 to .70 for the four Depth Control domain items. Rosenfeld (1979) also found factor loadings of .72 and .78 for the two Lack of Control domain items. For the purpose of the present study, questions pertaining to honesty were not included due to the probability that this factor would be measured with the BIDR and the Too Good and Suspect Questionnaire subscales of the PDQ-4. (See Appendix E for the complete Abbreviated Self-Disclosure Scale.)

Balanced Inventory of Desirable Responding Version 6 (Paulhus, 1994). The Balanced Inventory of Desirable Responding Version 6 (BIDR) is designed to assess the probability that a respondent is likely to answer in a socially desirable way. Social desirability was conceptualized by Paulhus (1994) as representing two distinct constructs: (a) Self-Deceptive Enhancement (SDE), in which a respondent is more or less likely to believe that he or she behaves in a way that is more socially desirable; and (b) Impression Management (IM), in which a respondent consciously acts to defend a positive perception of him or herself by others. The BIDR is a 40-item inventory, and utilizes a 7-point Likert-type scale, in which responses range from "1" (Not True) to "7" (Very

True). Twenty of the items were designed to assess SDE (e.g., "I don't care to know what people really think of me"), and the other 20 were designed to assess IM (e.g., "I never swear"). Eighteen of the total items are presented in a negative way (e.g., "I rarely appreciate criticism"), and these items are reverse-scored. Consistent with the findings and recommendations of Stober, Dette, and Musch (2002), the BIDR is scored continuously. Each subscale total score therefore has a range of 20-140, and by adding the subscale scores, the total BIDR score has a range of 40-280.

Stober, Dette, and Musch (2002) found that scoring the BIDR subscales as continuous scales of measurement resulted in increases in internal consistency, as demonstrated by Cronbach's alpha scores of .66 and .67 for the SDE and IM subscales, respectively, compared to alphas of .46 and .55 for the SDE and IM subscales, respectively, when scored dichotomously (i.e., when continuous variable scores on the subscales are converted to dichotomous variable scores). The internal consistency Cronbach's alpha for the combined subscales has been found to be .83, and a significant test-retest reliability ranges from .65 - .69 (Paulhus, 1991; Peterson, Driver-Linn, & DeYoung, 2002). A concurrent validity correlation of .80 for the BIDR with the Multidimensional Social Desirability Inventory has been reported by Paulhus (1991; see Appendix F for the complete BIDR.)

Procedure

Respondents received a packet that contained numbered measures. The Demographics sheet was first, and the ORBQ was last. The other four measures were randomly ordered to control for response bias:

1)   Demographics Sheet.

2) The Balanced Inventory of Desirable Reporting.

3) The Abbreviated Self-Disclosure Scale.

4)   The Domain-Specific Risk-Taking Scale.

5) The Personality Diagnostic Questionnaire.

6) The Online Risky Behavior Questionnaire.

Data Preparation

Please refer to Table 1 f or the number of participants and C ronbach's alphas for each measure and subscale reported below.

Online Risky Behavior Questionnaire. Of the total of 182 participants in the present study, 1 did not complete the ORBQ, and 1 answered the ORBQ using a scale of 1 to 7, rather than a scale of 1 to 5; therefore, these 2 participants were not included in any analysis which involved the ORBQ. Five participants answered that they did not have a Facebook page, and these participants were excluded from any analysis which employed the ORBQ. This left 102 men and 73 women whose data were used to investigate any hypothesis which included the ORBQ. Five of the items were included in the original Karl and colleagues (2010) risky online behavior questionnaire, but were used as control items (e.g., "Home address", p. 180). Upon further consideration by the present author, it was argued that these items did, in fact, constitute risky online behaviors (e.g., "Home address", which could place a participant at a higher risk for identity theft). Thus, there was a total of 20 risky online behavior items which were used

31

Table 1.

Descriptive Statistics for the ORBQ, DOSPERT, PDQ-4, BIDR, and Abbreviated Self-Disclosure Scale, by Gender.

Instrument	Subscale	Cronbach's α	Men N	Men Mean	Men SD	Women N	Women Mean	Women SD	t	η^2
ORBQ	Total	0.83	101	43.11	12.41	73	38.37	8.09	3.05**	.05
DOSPERT	Total	0.78	105	89.26	17.21	76	79.15	14.83	4.13**	.09
	Social	0.64		27.59	5.62		26.42	5.41	1.40	
	H/S	0.60		22.47	6.56		19.72	6.49	2.79**	.04
	Ethics	0.55		13.59	4.89		10.79	3.38	4.55**	.10
PQD-4	Total	0.84	105	14.81	7.30	76	14.22	6.74	0.55	
	ASPD	0.65		2.29	1.73		1.33	1.32	4.22**	.09
	HPD	0.50		2.15	1.62		2.24	1.67	- 0.34	
	NPD	0.44		2.98	1.68		2.38	1.50	2.48*	.03
	BPD	0.60		2.60	1.69		2.81	1.58	- 0.66	
	APD	0.71		2.83	2.05		3.39	1.94	- 1.88	
	DPD	0.68		1.56	1.70		1.89	1.82	- 1.26	
	2 Good	0.29		0.28	0.55		0.20	0.46	1.02	
	Sus Qstnr	-0.41		0.12	0.33		0.01	0.12	3.13**	.05
BIDR	Total	0.80	97	148.90	23.04	72	149.68	21.45	- 0.23	
	IM	0.78		63.93	15.05		70.83	13.08	- 3.17**	.06
	SDE	0.77		84.94	14.20		78.85	12.80	2.88**	.05
Self-Disc	Intent	0.66	105	16.12	3.29	76	15.68	2.76	0.95	
	Freq	0.76		24.24	6.19		25.80	7.27	1.56	
	Pos/Neg	0.88		33.37	7.49		31.05	7.73	2.03*	.02
	Depth	0.62		13.18	4.17		12.82	4.43	0.57	
	Lack Ctrl	0.72		5.18	2.62		5.41	2.12	- 0.62	
	Total†	0.75								

Note. *p <.05, **p <.01. †The Total subscale of the Abbreviated Self-Disclosure Scale was used only in the analysis of internal consistency.

to calculate the total ORBQ scores utilized in the analyses. The Cronbach's alpha index

of internal consistency for the ORBQ total score was .83 for a total of 20 items. Inter-

item correlations of the 20 items were in the low (-.03) to moderate (.37) range, with a

mean of .20.

Domain-Specific Risk-Taking Scale. Two participants failed to answer one of two different questions on the DOSPERT, and the mean answer for all of the participants for each of the two questions was substituted in analyses. The Cronbach's alpha for the DOSPERT total scale scores (23 items) which included the Ethics, Health/Safety, Social, and Recreational subscales was .78. For the Ethics subscale (five items), Cronbach's alpha was .55. For the Health and Safety subscale (six items), Cronbach's alpha was .60. For the Social subscale (six items), Cronbach's alpha was .64.

Personality Diagnostic Questionnaire-4. Of the total 175 participants who completed the ORBQ and the PDQ-4, 102 were men and 73 were women. Two participants did not answer one question, and one participant did not answer a different question. In these cases, the mode for the particular binomial question-response was substituted for the missing data. For the analysis of internal consistency, all completed surveys were used, for a final N of 182, completed by 105 men, 76 women, and one other participant, who wrote "bi-gendered" on the demographic survey.

A Phi correlation coefficient analysis was conducted for the Cronbach's alpha index of internal consistency for the PDQ total scores (54 items), which included the Narcissistic Personality Disorder subscale (NPD), Borderline Personality Disorder subscale (BPD), Antisocial Personality Disorder subscale (ASPD), Histrionic Personality Disorder subscale (HPD), Dependent Personality Disorder subscale (DPD), Avoidant Personality Disorder subscale (APD), Too Good subscale, and Suspect Questionnaire subscale, and a coefficient of .84 was found. For the NPD subscale (nine items),

33

Cronbach's alpha was .44. For the BPD subscale (nine items), Cronbach's alpha was .60. For the ASPD subscale (eight items), Cronbach's alpha was .65. For the HPD subscale (eight items), Cronbach's alpha was .50. For the DPD subscale (seven items), Cronbach's alpha was .68. For the APD subscale (seven items), Cronbach's alpha was .71. For the Too Good subscale (three items), Cronbach's alpha was .29; one item (item 28) was excluded from the analysis, as the variance among the scores was zero. For the Suspect Questionnaire subscale (two items), Cronbach's alpha was -.041.

Abbreviated Self-Disclosure Scale. Cronbach's alpha for the Abbreviated Self-Disclosure subscale scores (23 items), which included the Intent, Frequency, Positive-Negative, Depth, and Lack Control subscales, was .75. For the Intent subscale (three items), Cronbach's alpha was .66. For the Frequency subscale (seven items), Cronbach's alpha was .76. For the Positive-Negative subscale (seven items), Cronbach's alpha was .88. For the Depth subscale (four items), Cronbach's alpha was .62. For the Lack Control subscale (two items), Cronbach's alpha was .72.

Balanced Inventory of Desirable Reporting. For the 182 total participants in this study, 12 participants received BIDR questionnaires in which one page (14 questions) was missing. The participants with missing pages on the questionnaire were excluded from any analysis that included the BIDR. Also, the analyses of the BIDR in relation to the ORBQ excluded 6 participants for the reasons listed above, including using the incorrect scale to answer questions. This left a total number of 164 in the following analysis, 95 of which were men, and 69 of which were women. Question number 30 ("I always declare everything at customs"), which is included on the IM subscale, was left

unanswered by 11 participants. Initially, a one-way ANOVA was used to determine if

there was a significant difference between the BIDR Total scale scores when question 30

was included and when it was not, and using the same variables for the IM subscale

score. There was a significant difference for only the IM subscale score, $F(1, 168) =$

4.04, $p = .045$. The mean score of the question was then substituted for those with

missing values, and the ANOVA was again calculated for differences between scores

with the mean substituted and those without the mean substituted for missing data. There

was a significant difference for only the IM subscale score $F(1, 168) = 4.07$, $p = .045$,

which was only marginally different from the original findings of the ANOVA using the

mean scores for question 30, but which indicated that the inclusion of question 30 was

more likely to result in a higher IM subscale score. Therefore, question 30 was removed

altogether from any analysis. The mean score of all other participants was substituted for

four other missing data values for 4 different participants on five different questions.

Cronbach's alpha index of internal consistency was .78 for BIDR Total scale (39 items),

.77 for the SDE subscale (20 items), and .80 for the IM subscale (19 items).

CHAPTER III

RESULTS

The variables of interest in this study included gender and scores on measures of socially-desirable reporting, self-disclosure patterns, risky behaviors, psychopathological personality characteristics, and online risky behaviors. In general, I hypothesized that the probability that an individual would disclose risky personal information on Facebook would increase as a function of the variables of interest. Specifically, there are six hypotheses that drove the present research.

First, I hypothesized that risky online behaviors would be positively related to engaging in risky behaviors in situations across several domains. Second, I hypothesized that men would be more likely to engage in risky online behaviors than women. A Pearson Product-Moment correlation analysis was performed to determine the relationship and direction of the relationship between scores on three domains of the DOSPERT (Social, Ethics, Health/Safety), and scores on the ORBQ. T-tests were used to determine the significance of differences between the scores of men and women on both measures. The means and standard deviations for the subscale scores of all five measures are listed in Table 1. The means and standard deviations for the risky items on the ORBQ are listed in Table 2.

Table 2.

The Risky Items of the Online Risky Behavior Questionnaire.

Would post or upload to Facebook:	Men (N = 101)		Women (N = 73)	
	Mean	SD	Mean	SD
Comments about using illegal substances	1.56	1.01	1.11	0.39
Home address in personal profile	1.76	1.18	1.23	0.74
Participation in activities that violate Student Code of Conduct	2.29	1.38	2.01	1.17
Comments that include profanity	3.35	1.43	2.96	1.34
Semi-nude photo	1.67	1.08	1.14	0.42
Comments about personal beliefs or values	3.58	1.29	3.53	1.23
Comments about drinking alcohol	2.67	1.42	2.45	1.38
Comments about personal political affiliation	2.88	1.38	2.81	1.43
Phone number in personal profile	2.46	1.50	1.71	1.21
Photo of self drinking alcohol	2.45	1.53	2.51	1.45
Photo of self in the nude	1.08	0.44	1.06	0.47
Comments about personal sexual activities or preferences	1.92	1.26	1.56	1.03
Photo of self with firearms	1.76	1.24	1.23	0.76
Comments regarding personal feelings	2.84	1.38	3.51	1.92
Comments about personal sexual orientation	3.24	1.58	3.08	1.62
Photo of self with sexual props	1.26	0.59	1.10	0.51
Negative comments about others who could view those comments	1.86	1.05	1.30	0.74
Sexy or provocative photo of self	1.55	0.99	1.30	0.78
Negative comments about personal job	1.98	1.16	1.73	0.99
Photo of self using illegal drugs	1.13	0.44	1.04	0.35

The mean total ORBQ score, regardless of gender ($N = 174$), was 41.25 ($SD =$ 11.14). For men, the mean total score was 43.11 ($SD = 12.41$). For women, the mean total score was 38.37 ($SD = 8.09$). An independent samples t-test indicated that the differences in total scores on the ORBQ for men and women was significant, $t(172) = 2.85, p < .01$, $\eta^2 = .05$, such that men were more likely to endorse items indicating risky online behaviors.

The ORBQ was hypothesized to have a positive relationship with the scores on the DOSPERT. Independent samples t-tests found that there was a significant difference

between the scores for men and women on the DOSPERT Total scale, t (179) = 4.13, $p <$ .01, η^2 = .09, such that men were more likely to endorse the riskier behaviors across domains than were women. Independent samples t-tests also found that there were significant differences between the scores for men and women on the DOSPERT Health/Safety subscale, t (179) = 2.79, $p < .01$, η^2 = .04, and on the Ethics subscale, t (179) = 4.55, $p < .01$, η^2 = .10, such that men were more likely to endorse riskier behaviors in the Health/Safety and Ethics domains than were women. However, no differences were found between the scores of men and women on the Social subscale, t (179) = 1.40, p = .16.

Table 3 lists all of the correlations of each subscale of each measure with the ORBQ, by gender. For the Social subscale of the DOSPERT, a significant correlation was found for the scores of both men and women and scores on the ORBQ, r (172) = .22, $p < .01$. For men, a significant correlation was found between scores on the Social subscale and the ORBQ, r (99) = .22, $p < .05$. However, for women, no significant correlation was found for the Social subscale and the ORBQ, r (71) = .17, p = .15. Given that there was no significant difference in risky social behaviors endorsed by men and women in the sample, the significant correlations found for men on the ORBQ and the Social subscale are likely due to the higher scores for men on the ORBQ.

For men (N = 101), a significant result was found for the DOSPERT Total scores and the ORBQ, r (99) = .43, $p < .001$, which indicated that as risk-taking behaviors increased, risky online behaviors increased. A Pearson correlation analysis was performed to determine the relationships between the scores of male participants for the

38

Table 3.

Correlations with the ORBQ, by Gender.

Instrument	Subscale	ORBQ	
		Men (*N* = 101)	Women (*N* = 73)
DOSPERT	Total	.43**	.21
	Social	.22*	.17
	H/S	.50**	.27*
	Ethics	.43**	.21
PQD-4	Total	.31**	.15
	ASPD	.45**	.20
	HPD	.34**	.14
	NPD	.02	.06
	BPD	.22*	.10
	APD	.07	.02
	DPD	.12	.13
	2 Good	.13	.07
	Sus Qstnr	.40**	-.11
Self-Disc	Intent	-.19	.16
	Freq	.18	.24*
	Pos/Neg	-.10	-.05
	Depth	.25*	.32**
	Lack Ctrl	.25*	.14
		Men (*N* = 95)	Women (*N* = 69)
BIDR	Total	-.18	-.29*
	IM	-.29**	-.31**
	SDE	.14	-.16

Note: **p ≤ .05, **p ≤ .01*

DOSPERT Total scale, the Health/Safety subscale, and Ethics subscale, and scores for

the ORBQ. A significant positive relationship was found for the Health/Safety subscale

scores and the ORBQ scores, *r* (99) = .50, *p* < .001, such that as scores indicating

increases in risk-taking in this domain increased, scores of online risky behavior also

increased. A significant result was also found for the Ethics subscale scores and the ORBQ, r (99) = .43, p < .001, such that increases in scores of ethical risk-taking were positively related to increases in scores of risky online behaviors. For women (N = 73), the analysis revealed a significant correlation for Health/Safety subscale scores and the ORBQ scores, r (71) = .27, p = .022, such that as scores of risk-taking in this domain increased, scores of online risky behavior also increased.

Third, I hypothesized that risky online behaviors would be positively related to psychopathological personality characteristics. A Pearson Product-Moment correlation analysis was performed to determine the relationship and direction of the relationship between scores on the ORBQ and scores on the nine subscales of the PDQ-4: Narcissistic Personality Disorder (NPD), Borderline Personality Disorder (BPD), Histrionic Personality Disorder (HPD), Antisocial Personality Disorder (ASPD), Dependent Personality Disorder (DPD), Avoidant Personality Disorder (APD), Suspect Questionnaire, Too Good, and Total score. T-tests were used to determine the significance of differences between the scores of men and women on each subscale of the PDQ-4.

Independent samples t-tests revealed a significant difference between the scores for men and women on the PDQ-4 ASPD subscales, t (179) = 4.22, p <.01, η^2 = .09, and NPD subscales, t (179) = 2.48, p < .05, η^2 = .03, such that men were more likely than were women to endorse the characteristics of these personality disorders. Independent samples t-tests also found that there was a significant difference between the scores for men and women on the Suspect Questionnaire subscale, t (179) = 3.13, p < .01, η^2 = .05,

such that men were more likely than were women to endorse items indicating false reporting. No differences were found between the scores of men and women on the HPD, t (79) = -.034, BPD, t (179) = -.66, APD, t (179) = -1.88, DPD, t (179) = -1.26, Too Good, t (179) = 1.02, or Total subscales, t (179) = .55, p > .05 in each analysis.

For women (N = 73), no significant correlations were found between the ORBQ scores and the PDQ-4 subscales. For men (N = 101), significant positive correlations were found between the ORBQ and four of the subscales of the PQD-4: ASPD, r (99) = .45, p < .001; HPD r (99) = .34, p < .001; BPD r (99) = .22, p < .03; and Suspect Questionnaire, r (99) = .40, p < .001. The PDQ-4 Total scores were found to have a positive correlation with the ORBQ scores, r (99) = .31, p = .001. Thus, men who were more likely to report risky online behaviors were more likely to endorse items of Antisocial Personality Disorder, Histrionic Personality Disorder, Borderline Personality Disorder, and were also more likely to endorse items that indicated false reporting. However, only 14 of the male participants endorsed only one of the two items that measured false reporting.

Fourth, I hypothesized that risky online behaviors would be positively related to self-disclosure. More specifically, I hypothesized that scores on the ORBQ would increase as scores on the Frequency and Depth subscales of the Abbreviated Self-Disclosure Scale increase, and scores on the ORBQ would increase as scores on the Intent subscale decrease. Pearson Product-Moment correlation analyses were employed to determine the relationships and direction of the relationships between scores on five domains of the Abbreviated Self-Disclosure Scale (Intent, Amount, Positive-Negative,

41

Depth, Perception of Control), and scores on the ORBQ. The analyses were also used to investigate the correlations and their directions for the ORBQ and the Positive-Negative and Control subscales, as there was the potential for more error variability due to individual differences in responses to the latter two subscales. T-tests were used to determine the significance of differences between the scores of men and women on each subscale and the total score of the Abbreviated Self-Disclosure Scale.

Independent samples t-tests revealed that there was a significant difference between the scores for men and women on the Positive/Negative subscale of the Abbreviated Self-Disclosure scale, $t (179) = 2.03$, $p < .05$, $\eta^2 = .02$, such that men were more likely than were women to endorse items indicating that they habitually make more positive or negative statements about themselves. However, no differences were found between the scores of men and women on the Intent, $t (179) = .095$, Frequency, $t (179) = -1.56$, Depth, $t (179) = .57$, or Lack Control subscales $t (179) = -.64$, $p > .05$ in each case.

When controlling for gender, the analyses for men ($N = 101$) revealed a significant positive correlation between Depth subscale scores and the ORBQ scores, $r (99) = .25$, $p = .012$, such that as scores indicating that as men were increasingly more likely to endorse items indicating that they disclosed with more depth, scores of online risky behavior also increased. A statistically significant positive correlation was also found between the Lack of Control subscale scores and the ORBQ for men, $r (99) = .25$, $p = .011$, such that as scores indicating feelings of a lack of control over self-disclosure increased, so were there increases in scores of risky online behaviors.

For women ($N = 73$), the analysis revealed a significant positive correlation between Depth subscale scores and the ORBQ scores, $r(71) = .32$, $p = .006$, such that as scores indicating that women disclosed with greater depth increased, scores of online risky behavior also increased. A significant correlation was also found between Frequency subscale scores and the ORBQ scores, $r(72) = .24$, $p = .043$, such that as scores indicating that women self-disclosed with greater frequency increased, scores of online risky behavior also increased.

Fifth, I hypothesized that as scores on the ORBQ increase, scores on the Self-Deceptive Enhancement (SDE) domain of the BIDR would increase and scores on the Impression Management (IM) domain would decrease. Pearson Product-Moment correlation analyses were utilized to determine the relationship and direction of the relationship between gender, scores on the two domains of the BIDR, and scores on the ORBQ to test this fifth hypothesis.

Independent samples t-tests revealed a significant difference between the scores for men and women on the IM subscale of the BIDR, $t(167) = -3.17$, $p < .01$, $\eta^2 = .06$, such that women were more likely than were men to engage in impression management. Independent samples t-tests also found that there was a significant difference between the scores for men and women on the SDE subscale, $t(167) = 2.88$, $p < .01$, $\eta^2 = .05$, such that men were more likely than were women to endorse items indicating self-deceptive enhancement. However, no differences were found between the Total BIDR scores of men and women, $t(167) = .095$, $p > .05$, which suggests that men and women engaged in similar amounts of socially-desirable reporting.

For men ($N = 95$), a significant negative correlation was found between the

ORBQ and the IM subscale, $r(93) = -.29$, $p < .01$, indicating that the higher a man scored

on the ORBQ, the lower his scores on the IM subscale. This result suggests that the more

a man engages in impression management, the less likely he would be to report engaging

in risky behaviors online.

For women ($N = 69$), significant negative correlations for the ORBQ and the

BIDR Total score, $r(67) = -.29$, $p < .02$, and the ORBQ and the IM subscale, $r(67) = -.31$, $p = .01$, were found, such that the higher a woman scored on the ORBQ, the less

likely she was to engage in desirable reporting, and the less likely she was to engage in

impression management.

Sixth, I hypothesized that as scores on the DOSPERT increase, scores on the

Intent domain of the Abbreviated Self-Disclosure Scale would decrease. A Pearson

Product-Moment correlation analysis was used to determine the relationship and direction

of the relationship between the total score on the DOSPERT and the score on each

domain of the Abbreviated Self-Disclosure Scale.

For men ($N = 105$), there were no significant correlations between the Intent

subscale of the Self-Disclosure scale and the Social subscale of the DOSPERT, $r(103) = .17$, $p = .079$, Health/Safety subscale, $r(103) = -.12$, $p = .215$, or Ethics subscale, $r(103) = -.14$, $p = .152$. For women ($N = 76$), there was a significant positive correlation between

scores on the Intent subscale of the Self-Disclosure scale and the Social subscale of the

DOSPERT, $r(74) = .26$, $p = .007$, which suggested that women who endorsed items

indicating increased intention to self-disclose, the more likely they were to endorse items

indicating risky social behaviors. These results should be interpreted with caution, however, as there were no differences between the scores of men and women on the Intent scale of the Abbreviated Self-Disclosure Scale.

CHAPTER IV

DISCUSSION

The present study investigated the relationships between gender, self-disclosure patterns, socially-desirable reporting, psychopathological personality characteristics, domain-specific risk behaviors, and risky online behaviors.

Self-disclosure patterns and socially-desirable reporting

The present study investigated the effects of socially desirable reporting on risky online behavior, and found differences between men and women. In the present sample, both men and women engaged in socially desirable reporting in the form of impression management. Although the results of the present study suggest that men were more likely to engage in self-deceptive enhancement, whereas women were more likely to engage in impression management, self-deceptive enhancement was not significantly related to online risky behaviors, as measured by the ORBQ. The hypothesis that increases in risky online behaviors would be associated with decreases in impression management was supported for both men and women. This indicates that when men and women in this sample were more concerned with how others perceived them, they were less likely to engage in risky online behaviors. In computer-mediated communication, Cho (2007) found that male adolescents were more likely to be honest than female adolescents, and

Chiou and Wan (2006) found that male adolescents were more likely to disclose more intimately than were female adolescents. The results of the present study seem to be consistent with these previous findings, in that men were more likely than women to report engaging in risky online behavior and were less likely to engage in impression management than were women.

It is also noteworthy that, in the present sample, women's scores on the measure of impression management were significantly greater than those of men. This result is consistent with the results of Rosenfeld's (1979) study of self-disclosure patterns, which found that women were more likely to be concerned with maintaining positive impressions of themselves in others.

It should be noted, however, that the increases in impression management are indicative of socially-desirable reporting; thus, it is likely that risky online behaviors were underreported in this sample. Furthermore, self-report measures are notorious for inherent validity concerns with respect to accuracy of reporting (Bordens & Abbott, 2002; Schwarz, 1999). Socially-desirable reporting is, therefore, also likely to be only conservatively measured by a self-report measure. While one major limitation of using the BIDR is that the measure provides no clear indication of when a participant is being honest, this issue is compounded by the self-report nature of the measure. It was selected for the present study to provide a reference of socially desirable reporting, and also to act as a link between patterns of self-disclosure and risky online behaviors. In that respect, the BIDR was a useful measure, as it shows that impression management is, indeed, an important contributor to the likelihood that a person will report engaging in risky online

behavior, and may, in fact, play a role in whether a person does engage in risky online behavior. This effect should be considered in future research.

In this study, men and women who were more likely to self-disclose in greater depth were more likely to engage in risky online behaviors. This result suggests that self-disclosures of greater depth may be risky in some contexts, such as social network sites. This suggestion also contrasts with the results of the Nosko, et al. study (2010), which found no gender differences in the self-disclosure of personal information on Facebook. This disparity may be an artifact of the theoretical standpoint taken in describing online self-disclosure. That is, the present study examined theoretical patterns of self-disclosure, whereas Nosko et al. investigated the frequency of including specific information in a user's Facebook profile. In that regard, the present study offers a link between Nosko and colleagues' checklist approach and Suler's (2004) online disinhibition effect, in that the present study examined some overt behaviors (e.g., "post a nude photo") and some conceptual factors that may be related to the probability of engaging in those behaviors (e.g., depth of disclosure).

Suler's (2004) online disinhibition effect is also not without reproach in the context of the results of the present study. As the moniker would suggest, there is likely to be little in the way of impression management for online communication. The self-report nature of the questionnaires used in the present study, and the elevations on the impression management measure suggest underreporting of risky online behaviors in the present study; however, even with these considerations, the present results still suggest that impression management influences risky online behavior, and this is a factor for

which Suler's hypothesis does not account. More research is necessary to examine whether the traditional (i.e., Rosenfeld, 1979) or contemporary (e.g., Nosko et al., 2010) definitions of self-disclosure, and Suler's disinhibition effect may indicate similar, yet distinct constructs of self-disclosure and whether or not these constructs might differentially predict engaging in risky online behaviors.

Domain-specific risk-taking

With regard to more general risk behaviors, both men and women who endorsed risk items on a measure of health and safety behaviors were more likely to endorse risky online behaviors. Participants who engage in risky behavior online and in other domains may do so out of impulsivity, without consideration of the consequences of their actions. Men who were more likely to endorse risk items related to ethical behaviors were also more likely to indicate engaging in risky online behaviors. Risky ethical behavior may be a reflection of a lack of empathy for others. Perhaps the likelihood of engaging in risky behavior online as it relates to risky ethical behavior may be influenced by a lack of perception of others. That is, when one is online, one may not feel constrained by social norms, since other people are not physically present with the one who engages in risky online behaviors. Increases in endorsing risky health and safety behaviors were also related to increases in endorsing risky online behaviors for both men and women. This would suggest that a lack of concern for one's well-being is also related to risky online behaviors. Whether a complete lack of regard for the self and others is a primary factor (weighted by gender) in risky online behavior has yet to be determined, and future research should address this possibility.

49

With regard to the suggestion that perceiving others may influence decisions to engage in risky online behaviors, it is interesting to recall that there was no significant relationship between the Social domain subscale of the DOSPERT and the ORBQ. Yet, behaviors on Facebook are conceptualized as social in nature. It may be that online social network behaviors constitute a different kind of social behavior that does not fit current models. The lack of a significant finding between the social domain and the ORBQ may also offer evidence for Suler's (2004) online disinhibition effect, in that online risky behaviors may occur when there is a lower probability of other risky social behaviors. I suggest that future studies of an exploratory nature be conducted to generate specific constructs of social behavior, that are either inclusive of online behaviors, or that consider online behavior as a distinct element of social behavior, in general. Several studies have investigated differences between FTF and CMC communication (e.g., Chiou & Wan, 2006; Cho, 2007; Sheldon, 2008), however, the results of these studies contrast with one another, and, therefore, I suggest ongoing investigation of differences in behaviors between the two types of communication domains.

Personality

In the present study, increases in antisocial and histrionic characteristics were associated with increases in risky online behaviors for men, but not for women. I expected that other psychopathological personality characteristics (e.g., histrionic, narcissistic) would be significant predictors of risky online behaviors, due to impulsivity and the need to be the center of attention; however, only antisocial, histrionic, and borderline personality characteristics were significantly related to increases in risky

50

online behavior. Narcissism was specifically included, as I hypothesized that an individual with narcissistic characteristics would be likely to engage in risky behaviors that exaggerated the individual's sense of self-importance, and that reflected a need to be the center of attention. It is likely that the need to preserve a positive image of one's self in the eyes of others is the most prevalent characteristic of narcissism with regard to risky behaviors on social networking sites. The results therefore suggest that men who indicate a lack of compassion for others, had conduct problems in their childhood, act impulsively and provocatively, and engage in more general risk behaviors (e.g., drug use) are more likely to engage in risky online behaviors. These results seem to corroborate the suggestion that a lack of regard for others may play a primary role in risky online behaviors.

There were no significant differences among other personality characteristics between men and women, and none of the other personality characteristics were significantly related to risky behavior online. The lack of significant results for personality for women is likely to be a function of greater amounts of impression management and lesser amounts of reported risky online behaviors compared to men in this sample.

The Online Risky Behavior Questionnaire

Overall, the expected gender differences that were found suggest that men are more likely than women to engage in risky online behaviors, such as including their home addresses and phone numbers in their personal profile, making comments that include the use of profanity, or making comments about their participation in activities

51

that violate the Student Code of Conduct. The ORBQ appeared to be an effective instrument in measuring the risky online behaviors of participants, as it was significantly correlated with constructs of each of the other instruments, and was found to have moderate internal consistency.

As social networks continue to proliferate and grow in terms of the diversity of services provided, security and privacy technologies, and become even more widely used globally, the ORBQ is uniquely suited to become a forerunner in assessments specific to online behaviors. Furthermore, the ORBQ is a useful instrument across both clinical and experimental domains. Its formulation and the results of the present study can aid in examining the distinction between online behaviors and behaviors in other domains. Following further study and development, the ORBQ may be used to identify at-risk populations. For example, the findings of the present study suggest that men who are at an increased risk of impulsive behavior, such as not wearing a seat belt, not returning a found wallet, or having conduct problems in childhood are more likely to engage in behaviors on Facebook that potential employers may use as leverage in the hiring process. Therefore, I suggest that interventions should be implemented which target male adolescents and young adult men who may be at an increased risk for having trouble in the community. This population might include those individuals who are in the process of transitioning from residential care facilities into the community.

The present study also found that when men and women were less concerned with how others perceived them, the individuals in this sample endorsed a propensity to engage in more risky online behaviors. Based on this result, I also suggest that efforts

aimed at informing the public about the personal risks of engaging in these behaviors online be redoubled, and that the potential use of risky online behaviors against Facebook users by potential employers should be included as an educational element.

Limitations and future directions

The present study did not control for race, ethnicity, or religious affiliation in the analysis, due to the likelihood of the experimenters being unable to maintain the confidentiality of individuals in the sample with more variable backgrounds. Age was also not included in the analyses, and the age range was 18-23 years-old. It may be that as age increases for participants in this sample, they may also become more aware that risky online behaviors may impinge upon perceptions of others of their employability, and future research should consider this variable in the development of hypotheses with regard to risky online behaviors.

One major limitation in the present study is the language used in the creation of the ORBQ. Items taken from Karl and colleagues (2010) were revised to include syntax, and each of the items contained the word "would" (e.g., "I would upload a self-photo in the nude"), rather than the more appropriate "have" (e.g., "I have uploaded a self-photo in the nude"). These items were unable to capture the risky online behaviors that participants may have engaged in prior to the experiment, and were limited by the learning that may have occurred as a result of risky behaviors prior to the experiment. Future research with the ORBQ should change the language of the items to account for prior behaviors, unless a particular hypothesis or design indicates otherwise.

Another limitation is external validity, as the sample was drawn from a small,

53

private Catholic university in the Midwestern United States; thus, this sample is more likely to be composed of conservative, Caucasian individuals. There may also be racial and cultural differences in online disclosure behaviors, as individuals from collectivist cultures may maintain increased communication on the network site, and may therefore engage in fewer risky disclosures as compared to individuals from more individualized cultures, consistent with the findings of Karl and colleagues (2010). I suggest that future research address these limitations, as it is likely that the online social behaviors will become even more prominent as new technology and online social networks and communities continue to develop.

New venues for social interactions offer the opportunities for new patterns of behaviors, and the importance of the psychological sciences to keep pace with the technological developments that inform our understanding of social behaviors cannot be understated. Furthermore, social networks may offer uniquely accessible data, such as demographic variables, personal interests, social connections, and minute-by-minute updates of a user's life. With such an array of data that is quite literally at a researcher's fingertips, it is curious that more has not been done to utilize the social network platforms in the investigation of human behavior. As cultures increasingly move toward more technology-driven lifestyles (e.g., online banking and shopping), the opportunity to study behavior and to inform policies that shape the development of such technologies should be undertaken with a notable assiduousness.

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APPENDIX A

DEMOGRAPHIC PROFILE QUESTIONNAIRE

Participant #:

Please complete the following in the spaces provided.

Your Age:_____

Your Gender:_____

Your Current Year of College (Circle ONE):

First Year	Sophomore	Junior	Senior	Second/Third-Year Senior
1	2	3	4	5

Do you have a Facebook profile?   Yes   No

APPENDIX B

ONLINE RISKY BEHAVIOR QUESTIONNAIRE (ORBQ)

Participant #:

Instructions: For each of the following statements, please indicate the likelihood that you would engage in the described activity or behavior online (e.g., on Facebook). Provide a rating from Extremely Unlikely to Extremely Likely using the scale below as a guide. Write the number corresponding to your answer on the line provided on the right of the page.

Extremely   Extremely
Unlikely_____ Likely
   1   2   3   4   5

1) I would post comments regarding my use of illegal drugs.   1)_____

2) I would upload a humorous or goofy self-photo.   2)_____

3) I would include my home address in my profile.   3)_____

4) I would post comments regarding my participation in activities which 4)_____

      are in violation of the University policy (Student Code of Conduct).

5) I would include my favorite TV shows in my profile.   5)_____

6) I would post comments which include the use of profanity.   6)_____

7) I would include my group affiliations in my profile.   7)_____

8) I would upload a photo of myself engaging in athletics.   8)_____

9) I would post a semi-nude self-photo.   9)_____

10) I would post comments regarding my personal beliefs and values.   10)_____

Instructions: For each of the following statements, please indicate the likelihood that you would engage in the described activity or behavior online (e.g., on Facebook). Provide a rating from Extremely Unlikely to Extremely Likely using the scale below as a guide. Write the number corresponding to your answer on the line provided on the right of the page.

Extremely   Extremely
Unlikely_____ Likely
   1   2   3   4   5

11) I would include my birth date in my profile.   11)_____

12) I would post comments regarding my use of alcohol.   12)_____

13) I would post comments regarding my political affiliation.   13)_____

14) I would include my phone number in my profile.   14)_____

15) I would upload a picture of my pet.   15)_____

16) I would upload a photo of myself drinking alcohol.   16)_____

17) I would include my favorite music in my profile.   17)_____

18) I would include my favorite books in my profile.   18)_____

19) I would post comments regarding my religious beliefs.   19)_____

20) I would upload a self-photo in the nude.   20)_____

21) I would include my email address in my profile.   21)_____

22) I would post comments regarding my sexual activities or sexual   22)_____

     preferences.

23) I would upload a photo of myself with firearms.   23)_____

24) I would upload a photo of family members.   24)_____

25) I would post comments regarding my academic status.   25)_____

26) I would post comments regarding my feelings.   26)_____

Instructions: For each of the following statements, please indicate the likelihood that you would engage in the described activity or behavior online (e.g., on Facebook). Provide a rating from Extremely Unlikely to Extremely Likely using the scale below as a guide. Write the number corresponding to your answer on the line provided on the right of the page.

Extremely   Extremely
Unlikely_____ Likely
    1   2   3   4   5

27) I would upload my interests to my profile.   27)_____

28) I would post comments regarding my sexual orientation.   28)_____

29) I would include my hometown in my profile.   29)_____

30) I would include my favorite movies in my profile.   30)_____

31) I would upload a self-photo with sexual props.   31)_____

32) I would include my relationship status in my profile.   32)_____

33) I would post negative comments about others who could view   33)_____

     those comments.

 34) I would upload a self-photo.   34)_____

35) I would post positive comments about my job.   35)_____

36) I would upload a sexy or provocative self-photo.   36)_____

37) I would include my job or occupation in my profile.   37)_____

38) I would include my major in my profile.   38)_____

39) I would post negative comments about my job.   39)_____

40) I would upload a photo of a romantic partner.   40)_____

41) I would upload a photo of myself using illegal drugs.   41)_____

42) I would upload photos of my friends.   42)_____

APPENDIX C

DOMAIN-SPECIFIC RISK-TAKING SCALE

<div align="right">Participant #:</div>

Instructions: For each of the following statements, please indicate the likelihood that you would engage in the described activity or behavior if you were to find yourself in that situation. Provide a rating from Extremely Unlikely to Extremely Likely using the scale below as a guide. Write the number corresponding to your answer on the line provided on the right of the page.

Extremely   Extremely
Unlikely_____ Likely
   1   2   3   4   5   6   7

1) Admitting that your tastes are different from those of a friend.   _____

2) Going camping in the wilderness.   _____

3) Drinking heavily at a social function.   _____

4) Disagreeing with an authority figure on a major issue.   _____

5) Having an affair with a married man/woman.   _____

6) Passing off someone else's work as your own.   _____

7) Going down a ski run that is beyond your ability.   _____

8) Going whitewater rafting at high water in the spring.   _____

9) Engaging in unprotected sex.   _____

Instructions: For each of the following statements, please indicate the likelihood that you would engage in the described activity or behavior if you were to find yourself in that situation. Provide a rating from Extremely Unlikely to Extremely Likely using the scale below as a guide. Write the number corresponding to your answer on the line provided on the right of the page.

Extremely   Extremely
Unlikely_____ Likely

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

10) Revealing a friend's secret to someone else.   _____

12) Driving a car without wearing a seat belt.   _____

13) Taking a skydiving class.   _____

14) Riding a motorcycle without a helmet.   _____

15) Choosing a career that you truly enjoy over a more secure one.   _____

16) Speaking your mind about an unpopular issue in a meeting at work.   _____

17) Sunbathing without sunscreen.   _____

18) Bungee jumping off of a tall bridge.   _____

19) Piloting a small plane.   _____

20) Walking home alone at night in an unsafe area of town.   _____

21) Moving to a city far away from your extended family.   _____

22) Starting a new career in your mid-thirties.   _____

23) Leaving your children alone at home while running an errand.   _____

24) Not returning a wallet you found that contains $200.   _____

PERSONALITY DIAGNOSTIC QUESTIONNAIRE-4

Participant #:

Instructions: For each of the following statements, think about how you have tended to feel, think, and act **over the past several years.** Please answer either **T**rue or **F**alse to each item.

T (True) means that the statement is <u>generally true</u> for you.

F (False) means that the statement is <u>generally false</u> for you.

1) I avoid working with others who may criticize me.   T   F

2) I can't make decisions without the advice, or reassurance of others.   T   F

3) I need to be the center of attention.   T   F

4) I have accomplished far more than others give me credit for.   T   F

5) I'll go to extremes to prevent those who I love from ever leaving me.   T   F

6) I've been in trouble with the law several times (or would have been if

    I had been caught.   T   F

7) Sometimes I get upset.   T   F

8) I make friends with people only when I am sure they like me.   T   F

9) I prefer that other people assume responsibility for me.   T   F

10) I am "sexier" than most people.   T   F

T (True) means that the statement is <u>generally true</u> for you.

F (False) means that the statement is <u>generally false</u> for you.

11) I often find myself thinking about how great a person I am, or will be. T   F

12) I either love someone or hate them, with nothing in between.   T   F

13) I get into a lot of physical fights.   T   F

14) Occasionally I talk about people behind their backs.   T   F

15) I am inhibited in my intimate relationships because I am afraid of

     being   ridiculed.   T   F

16) I fear losing the support of others if I disagree with them.   T   F

17) I show my emotions easily.   T   F

18) Only certain special people can really appreciate and understand me.   T   F

19) I often wonder who I really am.   T   F

20) I have difficulty paying bills because I don't stay at any one job for

     very long.   T   F

21) There are some people I don't like.   T   F

22) I am more sensitive to criticism or rejection than most people.   T   F

23) I find it difficult to start something if I have to do it by myself.   T   F

24) I use my looks to get the attention that I need.   T   F

25) I very much need other people to take notice of me or compliment

     me.   T   F

26) I have tried to hurt of kill myself.   T   F

T (True) means that the statement is <u>generally true</u> for you.

F (False) means that the statement is <u>generally false</u> for you.

27) I do a lot of things without considering the consequences.　　T　　F

28) I have never told a lie.　　T　　F

29) I am afraid to meet new people because I feel inadequate.　　T　　F

30) I want people to like me so much that I volunteer to do things that

    I'd rather not do.　　　　　　　T　　　　　　　F

31) Even though I talk a lot, people say that I have trouble getting to

    the point.　　T　　F

32) I expect other people to do favors for me even though I do not

    usually do favors for them.　　　　T　　　　　　F

33) I am a very moody person.　　T　　F

34) Lying comes easily to me and I often do it.　　T　　F

35) A nuclear war may not be such a bad idea.　　T　　F

36) When alone, I feel helpless and unable to care for myself.　　T　　F

37) I have a flair for the dramatic.　　T　　F

38) Some people think that I take advantage of others.　　T　　F

39) I feel that my life is dull and meaningless.　　　　T　　　　F

40) People have often complained that I did not realize that they were

    upset.　　T　　F

41) I enjoy doing risky things.　　　　T　　　　　F

42) I have lied a lot on this questionnaire.　　T　　F

T (True) means that the statement is <u>generally true</u> for you.

F (False) means that the statement is <u>generally false</u> for you.

43) I have difficulty controlling my anger or temper.   T   F

44) Some people are jealous of me.   T   F

45) I am easily influenced by others.   T   F

46) When a close relationship ends, I need to get involved with

      someone else   immediately.   T   F

47) I suffer from low self-esteem.   T   F

48) In new situations, I fear being embarrassed.   T   F

49) I am terrified of being left to care for myself.   T   F

50) I take relationships more seriously than do those who I'm involved

      with.   T   F

51) Others consider me to be stuck up.   T   F

52) When stressed, things happen. Like I get paranoid or just "black

      out."   T   F

53) I don't care if others get hurt so long as I get what I want.   T   F

54) I have done things on impulse (such as those below) that could

      have gotten me into trouble.   T   F

      If you answered true, please check all that apply.

      _____ Spending more money than I have.

      _____ Having sex with people I hardly know.

_____ Drinking too much.

_____ Taking drugs.

_____ Eating binges.

_____ Reckless driving.

55) When I was a kid (before age 15), I was somewhat of a juvenile

delinquent, doing some of the things below.   T   F

Now check all that apply to you:

_____ I was considered a bully.

_____ I used to start fights with other kids.

_____ I used a weapon in fights that I had.

_____ I robbed or mugged other people.

_____ I was physically cruel to other people.

_____ I was physically cruel to animals.

_____ I forced someone to have sex with me.

_____ I lied a lot.

_____ I stayed out at night without my parents' permission.

_____ I stole things from others.

_____ I set fires.

_____ I broke windows or destroyed property.

_____ I ran away from home overnight more than once.

_____ I began skipping school, a lot, before age 13.

_____ I broke into someone's house, building, or car.

71

APPENDIX E

ABBREVIATED SELF-DISCLOSURE SCALE

Participant #:

Instructions: For each of the following questions, please indicate your response on a scale of 1 to 7 as shown below. Write the number corresponding to your answer on the line provided on the right of the page.

Extremely   Extremely
Unlikely_____ Likely

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

1) When I am self-disclosing, I am consciously aware of what I am   1)_____

     revealing.

2) I often disclose intimate, personal things about myself without   2)_____

     hesitation.

 3) When I express my personal feelings, I am always aware of what I am   3)_____

     doing and saying.

4) I do not often talk about myself.   4)_____

5) When I reveal my feelings about myself, I consciously intend to do so.   5)_____

6) I usually disclose negative things about myself.   6)_____

7) Once I get started, my disclosures last a long time.   7)_____

8) On the whole, my disclosures about myself are more positive than   8)_____

     Negative.

Instructions: For each of the following questions, please indicate your response on a scale of 1 to 7 as shown below. Write the number corresponding to your answer on the line provided on the right of the page.

Extremely Unlikely _____ Extremely Likely

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

9) I often discuss my feelings about myself.   9)_____

10) I normally reveal "bad" things about myself.   10)_____

11) My statements of my feelings are usually brief.   11)_____

12) I normally express my "good" feelings about myself.   12)_____

13) My conversation lasts the least time when I am discussing myself   13)_____

14) I intimately disclose who I really am, openly and fully in my   14)_____

   conversations.

15) Only infrequently do I express my personal beliefs and opinions.   15)_____

16) Once I get started, I intimately and fully reveal myself in my   16)_____

   self-disclosures.

17) I usually talk about myself for fairly long periods at a time.   17)_____

18) On the whole, my disclosures about myself are more negative than 18)_____

   positive.

19) I feel that sometimes I do *not* control whether I say personal or   19)_____

   intimate things about myself.

20) I often reveal more undesirable things about myself than desirable   20)_____

   things.

Instructions: For each of the following questions, please indicate your response on a scale of 1 to 7 as shown below. Write the number corresponding to your answer on the line provided on the right of the page.

Extremely   Extremely
Unlikely_____ Likely
   1   2   3   4   5   6

21) I usually disclose positive things about myself.   21)_____

22) I typically reveal information about myself without intending to.   22)_____
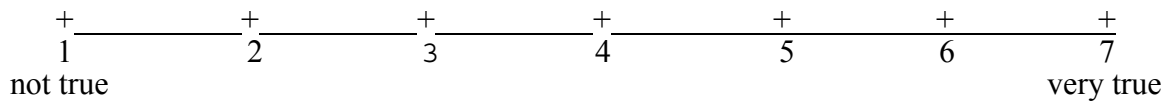
23) I often talk about myself.   23)_____

APPENDIX F

BALANCED INVENTORY OF DESIRABLE REPORTING

Participant #:

Using the scale below as a guide, write a number beside each statement to indicate how true it is.

```
 +          +          +          +          +          +          +
 1          2          3          4          5          6          7
not true                                                      very true
```

_____1. My first impressions of people usually turn out to be right.

_____2. It would be hard for me to break any of my bad habits.

_____3. I don't care to know what other people really think of me.

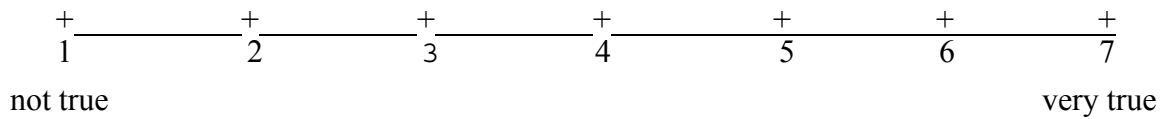_____4. I have not always been honest with myself.

_____5. I always know why I like things.

_____6. When my emotions are aroused, it biases my thinking.

_____7. Once I've made up my mind, other people can seldom change my opinion.

_____8. I am not a safe driver when I exceed the speed limit.

_____9. I am fully in control of my own fate.

75

Using the scale below as a guide, write a number beside each statement to indicate how true it is.

```
 +          +          +          +          +          +          +
 1          2          3          4          5          6          7
not true                                                    very true
```

_____10. It's hard for me to shut off a disturbing thought.

_____11. I never regret my decisions.

_____12. I sometimes lose out on things because I can't make up my mind soon enough.

_____13. The reason I vote is because my vote can make a difference.

_____14. My parents were not always fair when they punished me.

_____15. I am a completely rational person.

_____16. I rarely appreciate criticism.

_____17. I am very confident of my judgments

_____18. I have sometimes doubted my ability as a lover.

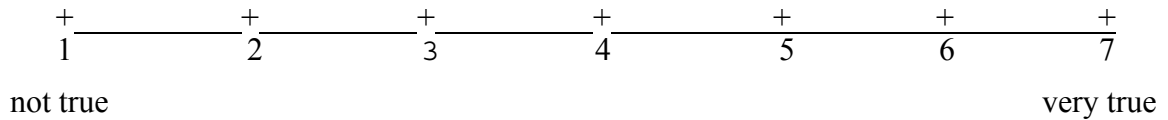_____19. It's all right with me if some people happen to dislike me.

_____20. I don't always know the reasons why I do the things I do.

_____21. I sometimes tell lies if I have to.

_____22. I never cover up my mistakes.

_____23. There have been occasions when I have taken advantage of someone.

Using the scale below as a guide, write a number beside each statement to indicate how true it is.

```
 +        +        +        +        +        +        +
 1        2        3        4        5        6        7
not true                                              very true
```

_____24. I never swear.

_____25. I sometimes try to get even rather than forgive and forget.

_____26. I always obey laws, even if I'm unlikely to get caught.

_____27. I have said something bad about a friend behind his/her back.

_____28. When I hear people talking privately, I avoid listening.

_____29. I have received too much change from a salesperson without telling him or her.

_____30. I always declare everything at customs.

_____31. When I was young I sometimes stole things.

_____32. I have never dropped litter on the street.
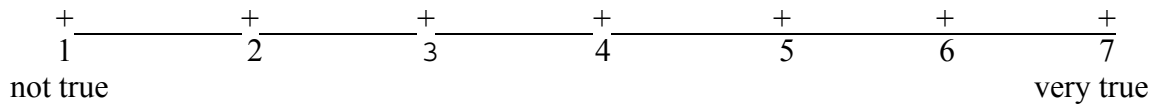
_____33. I sometimes drive faster than the speed limit.

_____34. I never read sexy books or magazines.

_____35. I have done things that I don't tell other people about.

_____36. I never take things that don't belong to me.

_____37. I have taken sick-leave from work or school even though I wasn't really sick.

Using the scale below as a guide, write a number beside each statement to indicate how true it is.

```
+          +          +          +          +          +          +
1          2          3          4          5          6          7
not true                                                    very true
```

_____38. I have never damaged a library book or store merchandise without reporting it.

_____39. I have some pretty awful habits.

_____40. I don't gossip about other people's business.