Personality and social characteristics of Facebook non-users and frequent users

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ABSTRACT

Facebook is currently the largest social networking website with an estimated one billion of monthly active users in 2012. While most of the prior research has explored characteristics of Facebook users, less is known about the characteristics of individuals who do not use Facebook. The current study examined personality and social factors that might influence the decision to use Facebook and explored differences between Facebook non-users and frequent users. Online questionnaires examining levels of trust and self-disclosure, number of intimate friendships, peer usage of Facebook and scores on overt and covert narcissism were used for the purpose of the study. The results showed that non-users and frequent users differed on several social and personality characteristics. Facebook non-users had lower tendency to self-disclose, fewer peers participating in the social network and higher covert narcissistic traits. Frequent Facebook users scored higher on overt narcissism and reported more intimate friendships than non-users, indicating that close friendships might actually extend to social networks and contribute to a feeling of closeness and intimacy between friends in both an online and offline context.

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1. Introduction

In the past six years, Facebook has become one of the fastest developing social networking websites on the Internet. In October 2012 Facebook reported having an estimated one billion monthly active users (Facebook, 2012). In 2009 around 90% of college/university students were estimated to have Facebook accounts (Sheldon & Honeycutt, 2009). Recent studies showed an increase of Facebook usage in student samples with one out of four college students reporting Facebook as the most visited website (Shu-Chuan, 2011) and 98% of college/university students reporting having a Facebook account in 2012 (Lee, 2012). With usage that high in the university student population, Facebook has become a significant factor in interpersonal relationships for college and university-age students.

Most research investigating Facebook use has explored characteristics of Facebook users and motives for utilizing this social network. Studies investigating Facebook non-users, however, are few in number. As far as we know, only four studies specifically looking at Facebook non-users have been published (Baker and White, 2011; Hargittai, 2007; Ryan and Xenos, 2011; Tufekci, 2008). Hargittai (2007) and Tufekci (2008) conducted their

research on college/university-aged students before the clear dominance of Facebook occurred and looked at the broader context of social networking sites (SNS). Hargittai (2007) focused on demographic factors and six sites and concluded that factors affecting choice included gender (women more likely to use Facebook), race, parental education, and residence location. Tufekci (2008) looked at SNS non-usage in general and concluded that being male, lesser inclination to engage in social grooming and social browsing, concerns about privacy, and a bias towards an instrumental rather than expressive use of the Internet were all factors related to non-usage of SNS sites. Baker and White (2011) studied Australian adolescents in a more recent study and found non-usage was associated with preference for other forms of communication (e.g., the phone), preference for other activities (e.g., sports), cyber-safety concerns, and dislike of online self presentation. Ryan and Xenos (2011) concluded that non-users were less narcissistic, less extraverted, more conscientious, and more socially lonely than users. The Ryan and Xenos (2011) study is particularly relevant to the current research in that they were the first to look at differences in psychological characteristics between individuals who choose not to participate in a process which has become almost universal among college/university-aged and the vast majority of their age cohort.

A body of literature has begun to emerge regarding the characteristics of Facebook users, mostly in terms of communication preferences and personality traits. A number of researchers (e.g., Lenhart & Madden, 2007; McKenna, Green, & Glenson, 2002) have

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identified staying in touch with friends, meeting new friends and facilitating romantic relationships as typical reasons for joining social networks. In a review article of Facebook research in social science, Wilson, Gosling, and Graham (2012) indicated that according to the available body of literature, the most common motivation for Facebook usage was to keep in touch with friends. Unlike other social networking websites, the literature suggests that Facebook shows a strong "offline to online trend," meaning that online contacts are typically known before being added to the friends list (Ross et al., 2009). This suggests that an individaul's offline social environment has a strong influence on decisions as to whether or not to actively participate on Facebook. Kujath (2011), for example, reported that Facebook and other social networks serve as an extension of face to face communication, although some individuals seemed to be relying more on communication via social networks than on "offline "interactions.

Tom Tong, Van Der Heide, Langwell, and Walther (2008) defined the number of friends on Facebook as a central feature of this social network. The number of Facebook friends typically averaged several hundred. Tom Tong and colleagues reported that with increasing numbers of Facebook friends, relative to earlier iterations, friendship defined through Facebook has developed a broader meaning. Currently, the definition of a "Facebook friend" includes intimate friends as well as acquaintances, with the number of acquaintances in the group typically increasing as the number of Facebook friends increases (Walther, Van Der Heide, Kim, Westerman, & Tom Tong, 2008). Thus, "friendship" now encompasses a number of different relationships (e.g. from intimate to superficial) or entirely online relationships.

Baumeister and Leary (1995) provided a useful framework in terms of the "need to belong" that can encompass both the notion of friends and acquaintances. They defined an individual's need for social acceptance as a "need to belong." According to Gangadharbatla (2008), social networks offer the type of contact and interactions that can fulfill this need by giving opportunity to participants to join conversations, express opinions and gain social approval. Ellison, Steinfield, and Lampe (2007) explored students' preferences in Facebook usage and found, consistent with the offline to online friends pattern, that Facebook users tended to utilize Facebook as a tool to learn more about their offline contacts and that only a minority of students used Facebook as a tool for meeting new online acquaintances. Wilson et al. (2012), suggested that two types of relationships can be found on Facebook: relationships with offline friends with strong ties, and relationships with online and offline acquaintances with weak ties. Strong ties manifest on Facebook through direct communication, chat and direct messaging and posting comments, while weak ties manifest through more passive activities, such as browsing profiles, liking photos or posts or looking at a news feed. Similarly, Hsu, Wang, and Tai (2011) investigated Facebook behavior with intimate friends and acquaintances. Participants reported having more interactions on Facebook with their online acquaintances. They reported, however, dedicating more time and effort to interactions with their close friends, indicating that although Facebook might be used for becoming more familiar with new friends, it also serves as a communication tool for interactions with close friends.

Given the increasing numbers of Facebook users, peer pressure to join this social network may also be a factor influencing the decision to join Facebook, (Govani and Pashley, 2007). In an educational context, Sendall, Cecucci, and Peslak (2008) found that college students often used Facebook as a collaborative tool for communication and group projects. Such usage likely influences college-age individuals' presence on this social network, regardless of personal preferences.

Additional explanations for participation in social networks like Facebook have been proposed which have been based more on personality factors than on social influence. For example, Buffardi and Campbell (2008) found correlations between narcissism and levels of activity on Facebook, suggesting that a frequent Facebook user with a large number of friends may have more narcissistic traits relative to occasional users or non-users. They analyzed Facebook profiles and personality traits of more than 130 college students and found that narcissistic traits correlated with both number of friends and level of self-promotion on Facebook.

These findings were confirmed in a study by Mehdizadeh (2010) in which she found that individuals with lower self-esteem and higher narcissism scores engaged in more self-promotional activities on Facebook and, on average, spent more time on this social network site than individuals with higher self-esteem and lower narcissism. She also found gender differences in self-promotional activities. For example, males posted self-promotional content in the "about me" section, whereas women mostly displayed their photos as a means of self promotion. However, a more recent study conducted by Gentile, Twenge, Freeman, and Campbell (2012) indicated that the participants who spent more time on Facebook did not score higher on the Narcissistic Personality Inventory (NPI) compared to the ones that spent less time on Facebook. This finding is consistent with Skues, Williams, and Wise (2012) who did not find any significant relationship between narcissism measured by NPI and Facebook use.

Two subtypes of narcissism (Gabbard, 1983; Wink & Gough, 1990) overt and covert have been identified. They seem to be correlated with different traits. According to Raskin and Novacek (1989), overt narcissists, who reflect our traditional notion of narcissism, tend to be extraverted with open display of grandiosity, and demonstrate egoistical tendencies. They score high on the Narcissistic Personality Inventory (NPI). Covert narcissists also have an underlying sense of grandiosity and self-importance, but they are not as comfortable displaying these characteristics as overt narcissists. They are attention oriented, introverted, less emotionally stable and tend to lack self confidence. (Gabbard, 1983). Covert narcissists score high on the Hypersensitive Narcissism Scale (HSNS). The differences between the subtypes of narcissism relative to Facebook use have not been explored thus far.

Like all other social networking websites, Facebook is based on user generated content; it encourages content sharing and information disclosure. A number of studies investigated whether personal trust preferences and general tendencies to self-disclose influence usage of this social network (Acquisti & Gross, 2006; Christofides, Muise, & Desmarais, 2009; Tufekci, 2008; Valenzuela, Park, & Kee, 2008). In a study conducted on more than 3000 undergraduate students, Valenzuela et al. (2008) explored the relationships between the intensity of Facebook use and social trust. Their findings indicated that intensity of Facebook use was related to the increased levels of social trust, such that individuals who used Facebook more frequently scored higher on the trust scale compared to the individuals who did not use Facebook that often. Christofides et al. (2009) found that most of the Facebook users participating in their research were not at all concerned about potential negative consequences of disclosing a range of personal information on Facebook. Acquisti and Gross (2006) found that even if an individual was concerned about strangers finding where they lived, he or she still disclosed that information on a social networking website. Walrave, Vanwesenbeeck, and Heirman (2012) explored trust and disclosure preferences of 1454 social network users aged from 10 to 65 years. They found out that younger social network participants generally tended to disclose more personal information and to exhibit higher levels of trust in their online friends. However, both adolescents and adults who desired to meet new online acquaintances tended to self-disclose more compared to ones who used social networks primarily to interact with the friends they already knew. Additionally, individuals who mainly

used social networking websites to interact with offline friends exhibited high levels of personal trust, indicating again that trust built in offline relationships is transferred into an online environment.

The goal of the present study was to examine similarities and differences between two groups: individuals who use Facebook frequently and individuals who do not use Facebook. Based on the existing body of research, we explored several social and psychological variables. These included level of trust, level of self-disclosure, number of intimate friendships, peer pressure to use Facebook and scores on overt and covert narcissism. The research was intended to address the following questions: is there a difference between levels of trust and tendency to self-disclose between Facebook users and non-users; are peer relationships and number of intimate friendships related to Facebook use; and do Facebook users exhibit different levels of narcissism compared to non-users?

Given the small number of studies that looked specifically into the characteristics of Facebook non-users, the theoretical framework for making the specific hypotheses related to the behavior and characteristics of Facebook non-users is not very strong. Consequently, the present study is more exploratory in its nature. However, our implicit hypotheses in undertaking this research were that non-users would be less narcissistic than frequent users, less trusting of others with lower tendency to self-disclose, and would report a higher number of intimate friendships than frequent users of Facebook. Finally, we expected non-users to experience less peer pressure to use Facebook than frequent users.

2. Methodology

2.1. Participants

A total of 269 individuals filled out the screening questionnaire, all of whom were undergraduate students from a university in Southwestern Ontario. The number of participants available was limited because students were recruited through the Psychology Participant Pool and numbers available were capped. Students were compensated with bonus points for their participation in the study.

Given the high incidence of Facebook usage in university student populations, the percentage of non-users in the student sample was expected to be low. Additionally, it was expected that the majority of students would report moderate use of this social network. In order to explore similarities and differences between groups of Facebook frequent users and non-users, an extreme groups sampling approach (EGA) was taken such that individuals scoring at extremes of the distribution were kept for the purpose of further analysis (Preacher, Rucker, MacCallum, & Nicewander, 2005). This sampling approach has been recommended for use in exploratory research and pilot studies when there is no strong theoretical background to build upon and can be a useful approach to detect trends in data. Moreover, it can also be used when extreme groups are not equal in size, which was expected to be the case in the present study (Preacher et al., 2005).

All participants were asked to report numbers of hours they spent daily on this social network in the screening questionnaire. For the purpose of further analysis only extreme scores were kept and participants for the study were selected out of the total number of students who filled-in the screening questionnaire. Based on the reported Facebook use for the purpose of this study, participants who reported using Facebook for two or more hours per day were defined as frequent Facebook users and participants who reported not having a Facebook account or having an inactive Facebook account were classified as Facebook non-users. Thus, these were the extreme groups selected for the final sample.

There were 106 participants selected based on their reported Facebook usage, 91 females and 15 males. As expected, out of this number, 36 participants were classified as non-users and 70 participants as frequent Facebook users; there were 31 female and five male participants in the non-users group and 60 females and 10 males in the frequent user group. The participants' ages ranged from 18 to 42 years with the average age of 21 ($M = 21.34$, $SD = 6.241$).

2.2. Instruments

Online questionnaires were used in order to evaluate characteristics of Facebook non-users and frequent users. Participants first completed a short demographic page, providing information about age, gender and their general patterns of Facebook use. In order to explore personality and psychological variables as factors in participation on Facebook several questionnaires were administered:

The Sharabany Intimate Friendship Scale is a 32-item questionnaire developed as a measure of intimacy. The scale consists of eight components (dimensions) with four items each: frankness and spontaneity, sensitivity and knowing, attachment, exclusiveness, giving and sharing, imposition, common activities, and trust and loyalty. It is a valid and reliable measure of intimacy with reported Cronbach α ranging between .75 and .77 for each subscale (Sharabany, 1994). Scores from Sharabany Intimate Friendship Scale were scored on a Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree", with the mean score used as an overall score. The scores in the study ranged from 1 to 4.47 with lower values indicating fewer intimate friendships and higher values indicating more intimate friendships.

The Facebook Peer Usage Questionnaire was developed by the authors (Table 1), with the aim of exploring Facebook use in a participant's offline social networks and peer pressure he or she might experience in relation to that. It consisted of twelve statements related to the use of Facebook within their offline social networks. Participants were asked to give a response on a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree".), with lower scores indicating lower level of Facebook use in their offline social networks and higher scores indicating higher levels of Facebook use. The reliability analysis conducted for the Facebook Peer Usage Questionnaire indicated good internal consistency of the scale ($\alpha = .82$).

In order to examine general level of trust, the General trust subscale of the Couch's Trust inventory (Couch, Adams, & Jones, 1996) was used ($\alpha = .90$). The General trust subscale of the Trust Inventory is composed of 20 items. Scores from the Trust inventory, were scored on a Likert scale from 1 to 5, with 1 representing the highest level of trust and 5 representing the highest level of distrust.

Self Disclosure Scale is a measure of self-disclosure adapted from Magno, Cuason, and Figueroa (2008). The original scale consists of five subscales with 60 items. For the purpose of this study the scale was adapted and ten items from the different subscales relevant to our research used. Reported reliability data indicate

Table 1
Means and Standard Deviations.

Scale	Non-users			Frequent users		
	N	M	SD	N	M	SD
Facebook Peer Usage	36	39.69	8.33	70	45.85	5.87
Self-disclosure scale	36	32.50	6.15	70	35.11	4.26
Intimate Friendship Scale	36	115.7	14.26	70	122.5	13.38
HSNS	36	28.72	2.94	70	26.58	3.36
NPI	36	58.58	3.54	70	60.47	3.57
Trust inventory	36	66.13	5.81	70	67.92	6.2

high internal consistency of the full scale ($\alpha = .913$). The adapted scale had the alpha value of .744.

The Narcissism Personality Inventory (NPI) is a widely used measure of overt narcissism, created by Raskin and Hall (1979) with high reliability and validity ($\alpha = .81$). The scale consists of seven subscales: authority, self-sufficiency, superiority, exhibitionism, exploitativeness, vanity and entitlement. It is a 40-item forced-choice questionnaire with the score range from 0 to 40. Each item consists of pair of statements and participants are asked to choose the one that they can identify with. The scores in the study ranged from 1 to 37 with higher scores indicating presence of narcissistic traits.

Hypersensitive Narcissism Scale (HSNS) is a 10 item questionnaire rated on a five-point Likert scale, with answers ranging from 1 "not at all true" to 5 "very true" developed by Hendin and Cheek (1997). It is a reliable measure of covert narcissism ($\alpha = .76$). High scores on the HSNS indicate the presence of covert narcissistic traits.

2.3. Procedure

Students were recruited to participate in the study through the Participants' pool of the Department of Psychology. After applying for the study, students were taken to the external web site where they were asked to fill in the questionnaire. Each participant was provided with a unique identification code. The code could be used to return to the survey in case they decided to take a break or were accidentally disconnected. After they got their access codes, participants were taken first to a demographics page and then to the specific questionnaires. In order to obtain participation points, participants were asked either to fill in 90% of the questionnaire or to send an opt-out email to the researcher.

3. Results

The majority of the participants screened in the study (92%) reported that they do have a Facebook account. From this, 27% of participants were marked as frequent users, with more than 2 hours per day spent on Facebook. Means and standard deviations for the scales described in Section 2 for both users and non-users are presented in Table 1.

In order to assess whether Facebook non-users differed significantly from frequent Facebook users on a variety of psychological and personality variables, multiple analysis of variance (MANOVA) was conducted. The MANOVA was followed-up by a discriminant functions analysis (DA) to determine the relationship between the dependent variables and their ability to differentiate the two Facebook groups. Prior to the main analyses, multivariate assumptions were tested and satisfied. Most notably, Box's test of equal covariance was non-significant [$F(21, 1913) = 1.29$, $p > .05$] indicating equality of the covariance matrices across the dependent

variables. Levene's test of equality of the error variances was non-significant for all dependent variables ($p > .05$), indicating equal error across dependents. Multivariate normality was established by checking the residuals; Cook's distance and Leverage statistics identified one participant as an influential outlier and this participant was removed from further analyses.

Using Hotelling's trace statistic, there was a significant effect of Facebook user type on the several psychological and personality variables, $T = .425$, $F(6, 99) = 4.24$, $p < .000$. This means that significant differences in the dependent variables were found as a result of being either a Facebook non-user or a frequent Facebook user. The results of the MANOVA for each dependent variable are presented in Table 2. It was found that Facebook Peer use, intimate friendships, self-disclosure and narcissism significantly differentiated between the two Facebook use groups. Level of trust means for users and non-users were not found to be significantly different. Non-users were more likely to report lower Facebook Peer Usage, to score lower on intimate friendship and self-disclosure scale, have higher scores on covert narcissism scale and lower scores on NPI narcissism scale.

To follow-up the MANOVA, a discriminant functions analysis was conducted to assess the propensity of the dependent variable to predict Facebook user group membership. The discriminant analysis revealed one significant discriminant function. This discriminant function significantly differentiated between the two types of Facebook users [$\Lambda = .707$, $\chi^2 = 35.243$ (6), $p < .000$, canonical $R^2 = .29$]. The correlations between the outcomes and the discriminant function revealed that Facebook Peer Usage ($r = .672$), intimate friendships ($r = -.354$), self-disclosure ($r = -.419$), covert narcissism ($r = -.491$), and narcissism ($r = .685$) loaded onto the function. With this function, 78.3% of the original cases were correctly classified.

4. Discussion

The present study examined characteristics of two extreme groups – Facebook frequent users and Facebook non-users. The results indicated that non-users and frequent users differed on several social and personality characteristics, indicating that these characteristics may contribute to the decision to utilize Facebook. The study also provided confirmatory baseline data on the proportion of Facebook non-users in a college/university student population. Previous research conducted by the same research group in 2009. Ross et al. (2009) found 15% of the participants in the university student population were not Facebook users. In the current study 8% of the participants did not have Facebook accounts, indicating a decrease in the number of university students who do not have Facebook accounts. This is consistent with Sheldon and Honeycutt (2009) who argued that for university and college students the number of Facebook users is continuously increasing, as Facebook takes an ever increasing role in the everyday social life of the young people.

Table 2
Results from the MANOVA.

Dependent variable	df	F	Partial η^2	M (non-users)	M (frequent users)
Facebook Peer Usage	1	19.50***	.158	39.69	45.85
Self-disclosure scale	1	6.55*	.059	32.50	35.11
Intimate Friendship Scale	1	5.41*	.049	115.7	122.5
HSNS	1	10.43**	.091	28.72	26.58
NPI	1	4.64***	.163	58.58	60.47
Trust inventory	1	2.04	.019	66.13	67.92

* $p < .05$.
** $p < .01$.
*** $p < .001$.

Looking at variables that differentiated Facebook frequent users and non-users, we found four variables that significantly differentiated Facebook users from non-users: narcissism, self-disclosure, intimate friendship and peer usage. The study confirmed findings from previous studies that explored the levels of overt narcissism and Facebook use (Buffardi & Campbell, 2008; Mehdizadeh, 2010). As expected, overt narcissism measured by NPI was found to be an important factor for frequent Facebook use with significantly more frequent Facebook users exhibiting narcissistic traits measured by NPI. However, the Facebook non-users scored higher on HSNS, indicating that participants in this group exhibited underlying narcissistic traits (i.e., covert narcissism). These findings suggest that non-users may actually be as narcissistic as users, but less inclined to publicly expose their narcissism, thus scoring lower on standard measures of narcissism such as the NPI which was used in previous research (i.e., Mehdizadeh, 2010). Thus, difference between Facebook frequent users and non-users might not necessarily be related to different levels of narcissism, but may have more to do with communication preferences and self- disclosure.

The findings related to self-disclosure supported the idea that frequent users and non-users differed on the tendency to share personal information with other individuals. Frequent Facebook users reported greater tendency to self-disclose and to provide more personal information about themselves, while Facebook non-users scored lower on the self-disclosure scale. These findings are consistent with a study conducted by Christofides et al. (2009) that indicated that frequent social network users were more inclined to share personal information online and less worried that their information could be misused.

It needs to be noted that simply engaging in computer mediated communication has been found to have a positive effect on self-disclosure. Several studies found that online communication elicited more intimate self-disclosure relative to face-to-face communication. Apparently, online relationships, deprived of non-verbal communication, rely more on information sharing and direct questioning in order to reduce uncertainty (Schouten, Valkenburg, & Peter, 2009). This indicates that increased levels of self disclosure in frequent users may not be a predictor of the frequent use of social networking but actually the consequence.

Frequent Facebook users reported more of their peers participating on Facebook relative to Facebook non-users. They also reported having more intimate friendships both online and offline compared to the individuals who did not use Facebook. Non-users scored significantly lower on the Intimate Friendship Scale than frequent users, indicating that they did not have as many intimate friends as Facebook frequent users. Contrary to our initial expectations, this may indicate that Facebook non-users are actually less committed to intimate friendships than frequent users. Ryan and Xenos (2011) found Facebook users to be less socially lonely compared to non-users, which is consistent with our findings. This suggests that close friendships might now be part of online social networks and may contribute to the feeling of closeness and intimacy between friends, thus deepening the connections that previously existed. On the other hand, keeping in mind that only self-report measures were used in the research, we cannot be sure if reported intimate relationships are reciprocal and if frequent Facebook users indeed have more intimate friendships compared to non-users. The reported higher number of intimate friendships could also be a function of the perception of having more intimate relationships based on the increased feeling of closeness and intimacy related to the higher proportion of online interactions on Facebook.

Although Dwyer and Hiltz (2007) found that trust was a significant factor in social network use these findings were not confirmed in the present study. The key difference in this domain may actually be in the area of privacy, rather than trust. According to Govani and Pashley (2007) personal privacy concerns may strongly impact the decision to participate on Facebook. This is likely due to the "openness" of this social network and the public posting of the personal information. On the other hand, Acquisti and Gross (2006) found that individual privacy preferences did not predict whether a person would be a Facebook user or not, and that although some of the participants had very high levels of concern about privacy, these individuals still had a Facebook account and participated in this social network actively on a daily basis. In order to gain a better view of how trust and privacy preferences influence Facebook use it may be useful to explore privacy and trust concerns in the same study.

In interpreting the results of the current study we need to address the limitations of the study. Since the study was conducted on a student population, the results may not generalize to other age groups and cultures. Moreover, one of the study limitations was also the small number of Facebook non-users in the student sample. Additional limitations are derived from the EGA sampling methodology used in the present study. Although this methodology is recommended for exploratory and pilot studies, especially when sample size is small (Preacher et al., 2005), the results derived from this approach should be taken as a guideline for future research. This would include using a larger sample and using the full range data, not only dichotomized data from the extreme groups. It would be possible to get a larger non-user sample in the general population. In that case, however, a cohort effect might influence the results, because older generations do not use Facebook as much a younger age group. Future research is needed to explore the relationships between personality and social characteristics and activities conducted on other social networking websites (i.e., LinkedIn, Twitter). In addition, the findings from the present study need to be replicated with an adolescent population.

It seems likely as the pressure to use Facebook increases and Facebook developers continue to create new functions, the non-user group will become even smaller. We may, however, find these individuals limiting their "Facebook Friends" to a small group of individuals they consider intimate friends and utilizing other functions on an as needed basis (e.g., group work in a class). Nevertheless, in time it may be as difficult to avoid using Facebook as it has been to avoid using the telephone.

Appendix A

Facebook Peer Usage Questionnaire.

Please answer the following statements according the following scale:

1 = Strongly Agree   2 = Agree   3 = Uncertain   4 = Disagree, 5 = Strongly disagree.

1. Most of my friends actively maintain their Facebook profiles.
2. My friends think that Facebook is important for their social life.
3. People I meet tell me to "find them on Facebook".
4. My friends rarely use Facebook*.
5. I will miss important things if I am not on Facebook.
6. I attend events that are coordinated and organized on Facebook.
7. My friends spend a lot of time on Facebook.
8. My friends play games on Facebook.
9. Most of my friends have many Facebook friends.
10. My friends communicate with each other on Facebook.
11. Facebook is important for my friends' social life.
12. My friends often ask me to join some group on Facebook.

*reverse coded item.

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