

# **The Relationship between Personality Traits and Active versus Inactive Facebook Usage among Female University Students in Egypt**

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## **Introduction:**

Social networking sites (SNS) have become one of the most popular tools for social interaction and information exchange. Several studies have emerged to study the characteristics of Facebook users, their communication preferences and personality traits (Ljepava et al., 2013).

There are several important reasons why this area of research merits attention. Personality traits represent relatively enduring characteristics of individuals that show consistencies over their lifespans and across a wide range of situations (Pervin and John, 1997; Shaffer, 2000). Moreover, personality traits have been found to be related to a broad spectrum of human activities and types of behavior (Landers and Lounsbury, 2006).

Due to its relevance to social behavior and as a broad classification of personality traits, the Big Five Model has recently been employed to investigate the use of social networking sites (Amichai – Hamburger & Vinitzky, 2010; Correa, Hinsley and de Zuniga, 2010; Ross et al., 2009).

There is a general consensus regarding the Big Five model as a unified conceptual framework for personality (Digman, 1990, 1997; Wiggins and Trapnell, 1997 (that gives researchers a common vocabulary for understanding personality dynamics (Mershon and Corsuch, 1988).

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Facebook has become a significant factor in interpersonal relationships for college and university-age students (Ljepava et al., 2013). Sheldon and Honeycutt (2009) 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.

Therefore, the current study aims to investigate how the Big Five traits and two narrow personality traits like narcissism and self-esteem influence usage of Facebook among Egyptian female university students.

### **The Big Five Model/ The Five Factor Model (FFM):**

The Big – Five consists of five broad personality traits, namely, Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness.

**Neuroticism** is defined as a measure of affect and emotional control, with low levels leading to good control over emotions and stability, whereas individuals with high levels may be somewhat sensitive and nervous with an inclination to worry (Costa and McCrae, 1992).

It is found that those who were high on Neuroticism demonstrated a strong interest in using the Internet for communication (Wolfradt and Doll, 2001), and to avoid loneliness (Amichai – Hamurger and Ben – Artzi, 2003; Butt and Phillips, 2008). Positive correlations have been found with the amount of time spent on Facebook ( $r = .20$ ; Ryan and Xenos, 2011).

Amichai – Hamburger and Ben – Artzi (2003) found high levels of Neuroticism in females were correlated with social usage of the internet ( $r = .32$ ), while there was a negative relationship between Neuroticism and use of the Internet for informational purposes ( $r = -.27$ ).

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It may thus be hypothesized that those who score highly on Neuroticism will use Facebook more often primarily for socialising.

**Extraversion:** Extraverts are typically adventurous, sociable and talkative, whereas introverts are typically quiet and shy (Costa & McCrae, 1992).

Individuals who are low on the trait of extraversion (i.e., are introverted) are more likely to use SNS for their communication needs. However, Facebook may actually disadvantage an introvert because it relies on offline relationships that an extrovert is more likely to develop, and those high in Extraversion have been shown to be members of significantly more "groups" (Ross et al., 2009) and have significantly more "friends" (Amichai – Hamburger and Vinitzky, 2010).

These results came in line with an earlier study by Amichai – Hamburger and Ben – Artzi (2000) who found a significant correlation between social use of the internet in general and Extraversion only for females. Ljepava, N. et al. (2013) found Extraversion was most relevant to self- presentational information on Wall as well as self – presentational behavior at News Feed.

On the basis of previous research, it is hypothesized that there will be a positive correlation between Extraversion and the active use of Facebook.

#### **Openness to Experience:**

Individuals who have high levels of openness- to – experience (openness) have a wide range of interests and seek novelty, whereas those who have low levels of openness prefer familiarity and convention (McCrae and Costa, 1987). It is the personality factor most likely to be associated with trying out new methods of communication, or using an SNS to seek out new experiences (Butt

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and Phillips, 2008; Correa et al., 2010) and with the use of more Facebook features (Amichai- Hamburger and Vinitzky, 2010). Also, Openness has been found to be related to information seeking (McElroy, Hendrickson, Townsend, and DeMarie, 2007).

However, the role of Openness to Experience in Facebook use is less clear as Facebook has become a relatively mainstream communication tool for university students (Ellison et al., 2007) and thus may no longer be a "unique" experience, especially after the launching of new SNS such as Instagram and Tumblr. Consequently, some recent Facebook research has found no relationship between openness to experience and Facebook use (Moore, K. & Mc Elory, J. C., 2012).

#### **Agreeableness:**

It is a measure of how friendly people are, with high ratings being associated with individuals who are kind, sympathetic and warm (Costa & McCrae, 1992). According to Landers and Lounsbury (2006), a low score on the trait of Agreeableness was associated with individuals who were unpleasant to be around because they did not possess the types of social graces that made their company desirable. It has been suggested that less agreeable individuals would have greater numbers of online contacts as the internet provides a means to build friendships that are difficult to initiate and maintain offline (Ross et al., 2009). However, the kind and warm nature of Agreeable persons may result in a positive correlation with social uses of SNS (Hughes et al., 2012).

On the other side, agreeableness has been found to be unrelated to internet and social media usage in other studies (Correa et al., 2010; Amichai – Hamburger and Vinitzky, 2010).

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### **Conscientiousness:**

It refers to a person's work ethic, orderliness and thoroughness (Costa and McCrae, 1992). It has been found to have negative relation to the use of the Internet and other forms of CMC (Swickert et al., 2002). It has also been suggested that conscientious individuals are inclined to avoid SNS as they serve as a distraction (Butt and Phillips, 2008) from more important tasks. However, Ross et al. (2009) found no significant correlation between conscientiousness and Facebook activities. Amichai – Hamburger and Vinitzky (2010) found that despite highly Conscientious individuals have more friends than those low in conscientiousness, they uploaded significantly fewer pictures to the site. However, Ryan and Xenos (2011) found a significant negative correlation between Conscientiousness and the amount of time spent on Facebook ( $r = -.14$ ). However, the relationship between Conscientiousness and Informational use of SNS is less clear, although Conscientious individuals use SNS to gather information that is relevant to their work (Hughes et al., 2012).

### **Narrow Personality Facets:**

Several authors have suggested that the Big Five Model may be too broad to capture some of the nuanced relationships between personality and online behavior (e.g. Ross et al., 2009).

It may be that other more specific personality characteristics not defined by the Five- Factor Model such narcissism and self-esteem are more influential in activities related to Facebook use.

### **Narcissism:**

The narcissists tend to view themselves as intelligent, powerful, physically attractive and unique (Buffardi and Campbell, 2008). Twenge and Foster (2010) see that there has been a significant

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increase in narcissism among the new generations over the last two decades.

Research concluded that there was a positive relationship between narcissism and usage of a SNS (Mehdizadeh, 2010; Ryan and Xenos, 2011), but there were different findings that found narcissism unrelated to the amount of time spent on SNSs (Ryan and Xenos, 2011; Bergman et al., 2011; Gentile et al.; 2012).

McKinney et al., (2012) and Ljepava, N. et al., (2013) found that narcissism was positively related to the number of, and desire to have, many SNS friends as having many friends is an easy way to show their popularity and importance (Bergman et al., 2011).

McKinney et al., (2012) found also that narcissists believe that others are interested in one's activities, which is reflected in uploading photos and updating status (Ong et al., 2011), as narcissism is a personality trait that is highly related to self- presentation on SNS to be in the spotlight and the center of conversations among Facebook friends (Lee et al., 2014),

### **Self- esteem:**

Self-esteem refers to the person's self-evaluation; that is, to what extent the individual views the self as worthwhile and competent (Coopersmith, 1967). Also, self-esteem is conceptualized as both stable trait that develops over time and a fluid state that reacts with daily events and circumstances (Heatherton and Polivy, 1991).

There are mixed findings regarding the association between self-esteem and the use of social networking sites. In a study conducted by Mehdizadeh (2010), university students with low self-esteem were found to spend more time on Facebook, especially those with higher narcissism scores as they engaged in more self – promotional activities on Facebook. This came in line with Ellison et al. (2007) as

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they found low self-esteem students using Facebook to build social capital to compensate for their low self-esteem. On the other side, Gonzales and Hancock (2011) found that Facebook had a positive impact on self-esteem as users presented only positive information about themselves that enhanced their self-esteem. People with low self-esteem preferred self-disclosing on Facebook rather than in person (Marshall et al., 2015). However, there are some studies that found no relationship between self-esteem and Facebook use (Kalpidou et al., 2011)

#### **Motivational Factors:**

Motivational factors may be more useful in understanding Facebook use. These motivating factors appear to be independent of the Five-Factor approach to personality, yet are likely influential in the decision to use forms of CMC such as Facebook (Ross et al., 2009).

Given the increasing numbers of Facebook users, peer pressure to join this social network may be a factor influencing the decision to join Facebook (Govani and Pashley, 2007).

In a review article of Facebook research in social science, Wilson, Gosling, and Graham (2012) indicated that the most common motivation for Facebook usage was to keep in touch with friends. Kujath (2011) reported that Facebook and other social networks serve as an extension of face to face communication.

Young people are aware of their social network profiles as their own "Shop windows", which is sometimes called "Brand You" (Livingstone 2008; Waters and Ackerman, 2011) as self-presentation is a major motivation for Facebook use, especially for adolescent girls (Binns, 2014).

In an educational context, Sendal, Cucci, and Peslak (2008) found that college students often used Facebook as a collaborative tool for

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communication and group projects. Such usage likely influences college- age individuals' presence on this social network, regardless of personal preferences.

**Methodology:**

**Research Hypotheses:**

Facebook Use (Active / Inactive) is affected by the following variables:

a- Personality Traits:

- Big Five (Openness to experience, extroversion, conscientiousness, agreeableness, neuroticism)
- Narcissism
- Self- esteem

b- Attitudes towards Facebook

c- Motivations of Facebook use (Social/ informational)

d- Educational variables (School year/ kind of education in high school)

**Procedure and sample:**

A survey was conducted on 326 undergraduate female students in the School of Mass Communication, Cairo University. 53.1% were students of the first year, and 46.9% were students of the fourth (senior) year. The questionnaire included measures of active and inactive use of Facebook, attitudes towards Facebook and motivations of its use, in addition to scales of different personality traits including the Big Five (Extroversion, Openness to experience, Conscientiousness, Agreeableness and Neuroticism), Narcissism and Self- Esteem.

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**Measurement of Variables:**

- **Active Use of Facebook:** It is measured by a scale consisting of 14 questions adopted from Ross et al. (2009). It contained items assessing basic use of Facebook, and the posting of personality-identifying information. Response alternatives differed according to the nature of the item. Basic use items included the use of the Wall, posting photos and videos, sending private messages, participating in or launching groups, posting of and participating in events, status changes, the use of comments and likes, changing profile pictures and updating personal information.
- **Inactive use of Facebook:** it was measured by one question asking about the average time spent on Facebook daily.
- **Attitudes towards Facebook:** An additive scale composed of four items, asking respondents to indicate the extent of their agreement or disagreement on a five- point Likert- type scale was derived from Ellison and colleagues (2007). The scale range was from 5 to 20 points, with the mean score equals to 15.1, and standard deviation equals to 3.3. the reliability of the scale was satisfactory ( $\alpha = 0.73$ ). by factor analysing the items of the scale, one factor was identified to explain 56% of the phenomenon.

The items of the scale were:

- i) Facebook is part of my everyday activity.
- ii) I feel I am part of the Facebook Community.
- iii) I feel out of touch when I haven't logged on to Facebook in a while.
- iv) I would be sad if Facebook shuts down.

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- **Social/ informational motivations of Facebook use:**

Respondents were given few motivations for each type of use and were asked to choose whatever matches them, and they were given the possibility of adding other motives, for choosing any choice, the respondent will be given one point.

**The Big Five Inventory (BFI)** (John, Donahue, & Kentle, 1991):

The BFI is a 44-item measure: extraversion (eight items), agreeableness (nine items), Conscientiousness (nine items), Neuroticism (eight items), and openness to experience (10 items).

Reliability for the Big Five traits ranged from 0.60 to 0.75

**Narcissism Personality Inventory (NPI) -15 item version** (Cozma et al., 2014)

The NPI-15 is a short version of the NPI-40, which is a 40- item measure (Raskin and Terry, 1988). It is a reliable and valid measure of narcissism which asks participants to select the most appropriate response from a pair of items and respond on a dichotomous response format either "0" for narcissism- inconsistent responses or "1" for narcissism consistent responses. These scores were summed, with higher scores on the NPI indicating higher levels of narcissism.

In the 16- item scale, developed by Ames et al. (2006), there are two items that have the same meaning and almost the same words "I like to be the center of attention" and "I really like to be the center of attention". Cozma et al. (2014) slightly modified NPI-16 by deleting the second item which led to the NPI-15 version which the current study adopts.

**Self- esteem:**

It was measured using the Robins, Hendin, and Trzesniewski (2001) single- item self- esteem scale. Participants indicated agreement with

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the statement "I have high self- esteem" on a scale ranging from "strongly Disagree" (1) to "strongly Agree" (5).

**Results:**

A hierarchical regression analysis was conducted to assess the impact of each of the personal traits, attitudes towards Facebook, motivations of Facebook use and Education variables on Inactive Facebook use.

**Table 1**

**Hierarchical Regression Results of Inactive Facebook Use**

**Impact of personal traits on Inactive Facebook use:**

To assess the impact of personal traits: Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness, Narcissism and Self-esteem on inactive Facebook, regression analysis was conducted. The overall model was not significant as  $F= 1.78, P> .05 (.09)$ , but the unstandardized coefficient (B) showed that Neuroticism had a significant effect as  $(B)= .11. t= 2.48, p< .05 (.01)$ , which means that controlling for the effect of other variables, any point increase in the level of Neuroticism, increases hours of Facebook use (inactive use) by .11 point. This result comes in line with the results of Butt and Philips, 2008 and Ryan and Xenos, 2011.

**Impact of attitudes towards Facebook on Inactive Facebook use:**

The results of adding the predictor of Facebook attitudes to the regression model is changing it into a significant model as  $F= 4.98, P< .0001$ . The incremental  $F= 26.33, P< .0001$ . The unstandardized coefficient of Facebook attitudes  $(B)=.33, T=5.1, P< .0001$ , which means that controlling for the effect of other variables any point increase in the level of Facebook attitudes, increases hours of Facebook use (Inactive use) by .33 point.

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### **Impact of Motivations of Facebook use on Inactive use:**

Adding the two predictors: social use motivations and informational use motivations to the model did not affect it as the F change was not significant and the incremental  $F = .14$ ,  $P > .05$ . The two predictors were not significant, as for the social use motivations  $B = .12$ ,  $t = .46$ ,  $P > .05$ , and regarding the informational use motivations  $B = .03$ ,  $t = .14$ ,  $P > .05$ .

### **Impact of Education variables on Inactive Facebook use:**

The two predictors of education type and education year were added to the regression model. The results of the regression analysis revealed that the education variables had a significant effect. The F change was significant as the incremental  $F = 8$ ,  $P < .0001$ . The significant variable is the education year as  $B = 1.65$ ,  $T = 3.92$ ,  $P < .0001$ , which means that controlling for the other variables, being in grade four (senior year) increases hours of Facebook use by 1.65. This is explained in light of the characteristics of the study sample as they are students of the school of Mass Communication where their use of Facebook increases as they proceed in their school years due to the nature of their study where they use it for socializing and also for collaborative work in their projects and studies. This result came in line with previous studies such as that of Senal et al. (2008).

Adding the education variables into the model, changed the personality trait (neuroticism) from a significant variable into a non-significant one as  $B = .08$ ,  $t = 1.9$ ,  $P > .05$ .

Generally, according to the standardized beta, the variables with significant effects in the fully specified model of inactive Facebook use are:

- (i) Attitudes towards Facebook ( $Beta = .24$ ,  $t = 4.15$ ,  $P < .0001$ ).
- (ii) Education year ( $Beta = .21$ ,  $t = 3.92$ ,  $P < .0001$ )

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Another Hierarchical regression analysis was conducted to assess the impact of the personal traits, attitudes towards Facebook, motivations of Facebook use and Education variables on Active Facebook Use.

### **Table (2)**

#### **Hierarchical Regression Results of Active Facebook Use**

##### **Impact of personal traits on Active Facebook use:**

To assess the impact of personal traits, the variables of the Big Five Model in addition to Narcissism and self-esteem on active Facebook use, regression analysis was conducted.

The overall model was significant as  $F= 4.7$ ,  $P< .0001$ . The three significant variables were extroversion, narcissism and self-esteem, while agreeableness, conscientiousness, neuroticism and openness were insignificant.

Regarding extraversion,  $B= .395$ ,  $T= 2.7$ ,  $P<.05$ . Controlling for the effect of other variables, every point increase in extraversion, increases the level of active Facebook use by 0.395. This comes in line with results of Ross et al., 2009; Correa et al., 2010; Amichai-Hamburger and Vinitzky, 2010; Lee et al. ;2014. The results of the current study showed also that there was a correlation between level of extraversion and number of Facebook events attended ( $r= .21$ ,  $P< .0001$ ) and number of events the person organized through Facebook ( $r= .17$ ,  $P, .001$ ).

For Narcissism,  $B= .88$ ,  $t= 2.96$ ,  $P< .005$ . Controlling for the effect of other variables, every point increase in narcissism, increases the level of active Facebook use by .88. This result matches those of Buffardi and Campbell, 2008; Mehdizadeh, 2010; Ryan and Xenos, 2011; Bergman et al., 2011; Carpenter, C. J., 2012 and Lee et al., 2014. The current study showed also a correlation between narcissism and

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writing posts ( $r=.18$ ,  $P< .01$ ) which matches the results of Carpenter's (2012) and Lee's (2014).

Regarding self-esteem, it had a negative relationship with active Facebook use as  $B= - 1.98$ ,  $t= -2.41$ ,  $P< .05$ . Controlling for the effect of other variables, every point increase in self-esteem, decreases the level of active Facebook use by 1.98 points. This result comes in line with what Binns (2014) found in her study that there was a correlation between using Facebook and lower levels of confidence among teenage girls.

#### **Impact of attitudes towards Facebook on Active Facebook use:**

Adding the predictor of attitudes towards Facebook did not affect the significance of the model. The overall model remained significant as  $F= 4.15$ ,  $P< .0001$ , but the F change was insignificant as the incremental  $F= .41$ ,  $P> .05$  (.524). The predictor itself was not significant as  $B= .12$ ,  $t= .638$ ,  $P> .05$ .

#### **Impact of Motivations of Facebook use on active Facebook use:**

Adding the two predictors: social use motivations and informational use motivations to the model did not affect its significance as the whole model remains significant  $F= 3.8$ ,  $P< .0001$ , but F change was not significant as the incremental  $F= 2.288$ ,  $P> .05$ .

However, the predictor of informational use motivations was significant as  $B= 1.45$ ,  $t= 2.11$ ,  $P< .05$ , which means that controlling for the other variables, increasing one-point in this variable increases the level of active Facebook use by 1.45 points. This result can be explained by the role played by Facebook in our daily life as it became a source of news and information as different newspapers had pages on this social network, in addition to different organizations which made pages on Facebook to spread their goals.

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On the other hand, the predictor of social use motivations was insignificant as  $B = -.15$ ,  $t = -.20$ ,  $P > .05$ . This result contradicts the results of so many studies which considered social motives like keeping in touch with friends is the most common motivation for Facebook usage (Wilson et al., 2012).

#### **The impact of Education variables on Active Facebook use:**

The two predictors of education type and education year were added to the Regression model. The results of the regression analysis revealed that the education variables had a significant effect as the adjusted  $R^2$  turned from .113 to .155 which means that adding these variables made the model explain 15.5% of the phenomenon of the active use. The F change was significant as the incremental  $F = 14.998$ ,  $P < .0001$ . The significant predictor was education year as  $B = 6.398$ ,  $t = 5.326$ ,  $P < .0001$ , which means that controlling for the other variables, being in grade four (senior year) increases the level of active Facebook use by 6.398 points. This came from the fact that students in the faculty of Mass Communication used Facebook as a tool for exchanging information about courses and as a collaborative way for group projects which came in line with what Senal et al. (2008) found in their study.

Adding the education variables into the model, changed the personality trait (self-esteem) from a significant variable into a non-significant one as  $B = -1.235$ ,  $t = -1.527$ ,  $P > .05$ .

Generally, according to the standardized beta, the variables with significant effects in the fully specified model are:

- (i) Education year ( $Beta = .28$ ,  $t = 5.33$ ,  $P < .0001$ )
- (ii) Narcissism ( $Beta = .168$ ,  $t = 2.62$ ,  $P < .05$ )
- (iii) Extraversion ( $Beta = .167$ ,  $t = 2.91$ ,  $P < .05$ )

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(iv) Informational use motivations (Beta = .117,  $t= 2.056$ ,  $P < .05$ )

**Discussion:**

This study examined the effect of the Big Five traits (Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness), in addition to two narrow personality traits (narcissism and self-esteem) on active versus inactive Facebook usage. The study also investigated the effect of attitudes towards Facebook, motivations of Facebook use (Social/ informational) and educational variables (School year and education type in high school). A survey was conducted on 326 female university students from the School of Mass Communication in Cairo University.

The results of the study shed light on the difference between factors affecting each type of Facebook use. Regarding the inactive Facebook use, none of the personality traits affected it. The only effective variables were attitudes towards Facebook and the education year. As inactive use was measured only by hours spent on Facebook, it was logical that as the positive attitudes increased, the time spent on Facebook increased whatever personal traits the user had.

There was also a positive correlation between school year and time spent on Facebook. This result could be interpreted in light of the nature of the Egyptian educational system and the differences in the life style of students in their first semester in the School of Mass Communication as they were used to spending a lot of time studying in High school and the life style of students after spending a few years in the school as the media, including social networking sites, became an important part of their life either to socialize with colleagues or as a part of their study.

Regarding the active Facebook use, it was affected by four variables; two personality traits which were narcissism and extraversion, in addition to informational use motivations and education year. There

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was a positive correlation between the level of narcissism and the active use of Facebook, especially that the measure includes updating status, uploading photos and writing comments. This came in line with the desire of narcissists to be in the spotlight (Buffardi and Campbell, 2008; Ong et al., 2011; Lee et al., 2014).

Also the positive correlation between extraversion and active use of Facebook was due to the willingness of extroverts to organize and participate in events and groups, in addition to posting self-presentational information and involving in self-presentational behaviors on the site (Ross et al., 2009; Ljepava et al., 2013).

The positive correlation between informational use motivations and active Facebook use is due to the need of the university students, especially in the school of Mass Communication for that site to get more information about their studies as each course has pages or groups on Facebook. They use Facebook also to get information about current events and activities.

Regarding the education year variable, it can be interpreted in light of the fact that students in the senior year of school used Facebook more actively than First year students as a tool of collaboration in group work in their graduation projects and assignments.

#### **Limitations and Future Research:**

The variables investigated here accounted for less than 20% of the variance leaving more than 80% of the factors affecting the use of Facebook unexplained. However, the results of the current study shed light on the importance of educational variables especially when investigating student communities. Also, they showed the importance of motivational factors affecting the use of Facebook. Future studies should look for other factors that may affect the use of SNS as Facebook. In addition to seeking more narrow personality traits,

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researchers should also investigate other individual difference variables as well as more demographic variables.

However, applying the study on a student population made us unable to generalize the results to other age groups or other populations. Also, this study examined the direct effect of each personality trait without taking into consideration the combined effects of more than one trait on Facebook usage. In addition to that, the use of cross-sectional data can not make us certain of causal relationships that require conducting longitudinal studies. Another limitation of the study is its dependence on participants' self-reported Facebook behavior. More objective and precise studies can be obtained in future research by coding participants' actual Facebook pages.

One of the main limitations of social networking research in general is the lack of good theory and data concerning the optimal method for operationalizing Facebook use.

It is recommended that researchers continue to examine the relationship between individual characteristics and specific patterns of Facebook usage especially in more representative samples, in addition to comparing between users of Facebook and other SNS.

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**Table 1. Hierarchical Regression Results of Inactive Facebook Use**

Variables	Model 1		Model 2		Model 3		Model 4	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Extraversion	.096	.052	.076	.05	.08	.05	.08	.05
Agreeableness	.035	.069	.008	.067	.006	.067	-.001	.065
Conscientiousness	.014	.049	.04	.047	.039	.048	.034	.047
Neuroticism	.11*	.045	.087*	.04	.089*	.044	.082	.040
Openness	-	.040	-.02	.038	-.02	.039	-.021	.038
Narcissism	.04	.105	-.02	.102	-.02	.103	-.055	.010
Self-esteem	.436	.29	.398	.28	.41	.283	.533	.028
Facebook Attitudes	-	-	.33**	.06	.32***	.068	.28***	.067
Social use motivations	-	-	-	-	.115	.248	.116	.24
Informational use motivations	-	-	-	-	.032	.235	.007	.23
Education type	-	-	-	-	-	-	.39	.43
Education Year	-	-	-	-	-	-	1.65**	.42
Constant	-	-	-	-	-	-	-	-
	2.50		-6.42		-6.42		-6.80	
<b>F</b>	<b>1.78</b>		<b>4.975***</b>		<b>3.987***</b>		<b>4.81***</b>	
<b>R<sup>2</sup></b>	<b>.038</b>		<b>.112</b>		<b>.113</b>		<b>.156</b>	

\*p< .05, \*\*p< .001, \*\*\*p<.0001

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**Table 2. Hierarchical Regression Results of Active Facebook Use**

Variables	Model 1		Model 2		Model 3		Model 4	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Extraversion	.395***	.15	.388**	.15	.393**	.15	.42**	.14
Agreeableness	.019	.195	.18	.19	.17	.19	.14	.18
Conscientiousness	.178	.137	.188	.14	.155	.14	.135	.13
Neuroticism	.015	.127	.007	.13	.016	.13	-.012	.12
Openness	.141	.112	.146	.11	.107	.11	.11	.11
Narcissism	.88**	.298	.86**	.30	.89**	.30	.76**	.29
Self-esteem	-1.98*	.82	-1.97*	.82	-1.8*	.83	-1.23	.81
Facebook Attitudes	-	-	.12	.19	.002	.20	-.16	.19
Social use motivations	-	-	-	-	-.147	.72	-.13	.69
Informational use motivations	-	-	-	-	1.49*	.69	1.36*	.19
Education type	-	-	-	-	-	-	1.72	1.2
Education Year	-	-	-	-	-	-	6.40***	1.2
Constant	-3.277		-4.706		-3.270		-4.894	
<b>F</b>	<b>4.69**</b>		<b>4.14**</b>		<b>3.80**</b>		<b>5.95**</b>	
<b>R<sup>2</sup></b>	<b>.094</b>		<b>.95</b>		<b>.108</b>		<b>.186</b>	

\*p< .05, \*\*p< .001, \*\*\*p<.0001