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## RESEARCH ARTICLE

### SOCIAL MEDIA PARTICIPATORY CULTURES-A STUDY OF THE DYNAMICS BETWEEN USER PERSONALITY AND FACEBOOK USE

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#### ABSTRACT

The Uses and Gratifications Theory suggests that people have different socio-psychological traits, which may affect the way and the reasons they use social media to satisfy their personal needs. In the Internet environment, users are even more actively engaged communication participants, compared to other traditional media. This study aims to examine the relationship between personality factors and Facebook use, and whether gender and age play a role in the dynamics. The study revealed that younger Facebook users had higher levels of extraversion and agreeableness. Older respondents were more conscientious, emotionally stable and open to experiences. Males showed higher extraversion, agreeableness and emotional stability. Females were more conscientious and open to experiences. Attitude towards Facebook and its Online Sociability functions with differed with Age. Extraversion and Openness to Experience differed in relation to Attitude towards Facebook. Extraversion, Conscientiousness and Emotional Stability differed with Online Sociability functions. Gender was not a significant predictor.

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#### INTRODUCTION

Social Networking sites are primary tools that people use to socialize with others and expand their circle of friends (Ellison, Steinfield, and Lampe, 2007). Created in 2004, as of April 2011, Facebook has above 660 million users worldwide. It is reported to have more than 23 million users in India, with more than 20 million being above 18 years of age and over 3 million in the below 18 years category. The number of Indian male users is over 16million, while the number of female users is above 6 million. (Internet World Stats, 2011) Such statistics raise the question of what types of people use Facebook to socialize with others. Is there a gender and age effect that adds to the dynamics of Facebook use and personality traits? This paper attempts to study the relationship that exists between Facebook use and personality traits by using the attitudes and online sociability dimensions of people towards Facebook.

#### Literature Review

Personality has a significant effect on social interactions. Past research has tried to find out how personality may affect individuals' social media usage. The Uses and Gratifications Theory suggests that people have different socio-psychological traits, which may affect the way and the reasons they use social media to satisfy their personal needs. The theory is also better suited for studies of Internet use. In the Internet environment, users are even more actively engaged communication participants, compared to other traditional media (Ruggiero, 2000). Researchers have studied a number of personality traits and most studies have used three to five universally accepted dimensions, such as extroversion, neuroticism, openness, agreeableness, and conscientiousness. (Tosun and Lajunen, 2010) Many social media user psychology studies have established three personality traits that are central to social media use: extraversion, neuroticism, and openness to experience, with researchers finding

high levels of correlation between these personality traits and use of social networking sites (Ross *et al.*, 2009; Zywicki and Danowski, 2008) Harbaugh (2010) studied the social network users' personality style and their Facebook use. Extroversion served as the most important personality style. The results indicated that heavy Facebook users, who spend more than two hours daily on the site, are seen by themselves and others as more outgoing and extroverted. Gosling *et al.* (2011) studied the correlations between these personality traits and a range of self-reported Facebook activities. High extraversion correlated with a large number of self-reported Facebook behaviors. Agreeableness was found to positively correlate with frequency of viewing pages on Facebook. Users who were more conscientious procrastinated less than those who were low on this personality trait. Those who showed higher openness to experiences added and replaced photo's more often. Neuroticism was found not to correlate with any of the Facebook behaviors.

Moorman and Bowker (2011) studied the relationship between age and Social Engagement and Component aspect, daily Routine Aspect, Stimulation Aspect and New Relationships of Facebook. They found older adults (aged 31 and older) scored high on the variables Social Engagement and Component Aspect, daily Routine Aspect and Stimulation Aspect of Facebook than younger participants (aged 21-24). However younger participants rated the New Relationships aspect of Facebook significantly higher than older participants. Wong (2002) reported correlations found between various personality variables and the number of Facebook friends. In a similar study Kip Parent (2011) studied correlations between usage patterns seven types of user temperaments and sixteen personality types. The research indicated that extroverts have significantly more Facebook friends than introverts. Other scholars have examined the influence of personality traits on Internet use, using the Five-Factor Model. The Big-Five framework is a model of personality that contains five factors representing personality traits at a broad level: extraversion, emotional stability, openness to experiences,

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agreeableness, and conscientiousness (Ehrenberg *et al.*, 2008; John and Srivastava, 1999).

**Table 1. Big Five Framework**

- Openness to Experience: curious, intelligent, imaginative. High scorers tend to be artistic and sophisticated in taste and appreciate diverse views, ideas, and experiences.
- Conscientiousness: responsible, organized, persevering. Conscientious individuals are extremely reliable and tend to be high achievers, hard workers, and planners.
- Extroversion: outgoing, amicable, assertive. Friendly and energetic, extroverts draw inspiration from social situations.
- Agreeableness: cooperative, helpful, nurturing. People who score high in agreeableness are peace-keepers who are generally optimistic and trusting of others.
- Neuroticism (Emotional Stability): anxious, insecure, sensitive. Neurotics are moody, tense, and easily tipped into experiencing negative emotions.

Results from research studies such as Amichai-Hamburger, 2002; Amichai-Hamburger and Ben-Artzi, 2003; Amichai-Hamburger, Wainapel, and Fox, 2002 showed that extraversion and neuroticism were significantly related to online activities. These studies found those who were highly extraverted were not heavy Internet users, while those who showed high levels of neuroticism/introversion were heavy users. Also – introversion and neuroticism were higher among women users of social networking services. But Ross *et al.* (2009) reported extraversion and openness to experience as being positively related to heavy use of social networking sites. Research literature suggests that gratifications of Facebook users significantly differ with regard to their individual personality characteristics. However most of these studies have used the student community as their samples.

**Table 2. Items and Descriptive Statistics for ‘Attitudes’ and ‘Online Sociability Function’ scales**

Attitudes	Mean	S.D.	S.E
Facebook is a part of my everyday activity	3.04	1.25	.127*
I am proud to tell people I am on Facebook	3.09	1.03	.104*
I dedicate part of my daily schedule to Facebook	2.53	1.08	.109*
I feel out of touch when I haven't logged on to Facebook for a while	2.89	1.19	.121*
I feel I am part of the Facebook community	3.24	1.04	.105*
I would be sad if Facebook shut down	3.18	1.24	.126*
I am satisfied with Facebook	3.64	0.89	.090*
Online Sociability Function	Mean	S.D.	S.E
How often do you use Facebook during working hrs?	3.22	2.39	.243*
How often do you use Facebook to comment on others' photos?	3.97	2.31	.235*
How often do you use Facebook to post on others' walls?	4.53	2.42	.246*
How often do you use Facebook to check on your own wall?	2.68	1.95	.198*
How often do you use Facebook to send private messages?	4.30	2.57	.261*

Note: \*p = .000

The researcher, through this study will try to replicate the study with wider age groups. Based on the previous literature, the following research questions are proposed in the Indian context:

Research Question 1: Is there a relationship between personality traits and various indicators of Facebook use

Research Question 2: Do personality traits differ by the various indicators of Facebook use?

Research Question 3: Does the relationship between personality traits and indicators of Facebook use differ by age?

Research Question 4: Does the relationship between personality traits and indicators of Facebook use differ by gender?

## METHOD

### Sample and Procedure

To examine the relationship between personality traits and Facebook use, an online survey was conducted among Indian respondents between October and November 2011. The survey was conducted using the Kwik Survey host where users can create their own web-based surveys (www.kwiksurveys.com). The Facebook ‘event’ option

was used which included a brief description of the research and a link to take the survey. The researcher invited all of her ‘friends’ on her Facebook network. The Online survey tool provided individual identification codes that ensured that the survey could be taken only once by a participant. Of the 97 people who responded, 45% of the respondents were men and 55% were women. Although the gender skew may introduce some bias into the findings, it is common to obtain higher response rates among women in both Web and paper surveys (Sax *et al.*, 2003). Ages ranged from ‘below 15 years’ to ‘32 years and above’. The Facebook Questionnaire was a 28-item questionnaire developed by the researcher. It contained three categories of items assessing basic use of Facebook, attitudes and online sociability functions associated with Facebook and personality traits related items.

### Measures - Indicators of Facebook Use

Facebook use was measured first by asking the extent to which the participant was actively engaged in Facebook activities: how long he/she has been on Facebook (Facebook Adoption), the number of Facebook “friends” and the amount of time spent on Facebook on a typical day. Also two scales from Ross *et al.*'s study were used to assess other indicators of Facebook use: Attitudes (reported alpha: 0.85, alpha in this study: 0.81) which had items borrowed from Ellison *et al.*'s (2007) facebook intensity scale and (2) Online sociability functions (reported alpha: 0.74, alpha in this study: 0.82) that was composed of questions relating to the frequency with which individuals engaged in different Facebook activities. Each item from Attitudes scale was ranked using a scale of 1= Strongly Disagree to 5= Strongly Agree. Participants were asked questions relating to their Facebook Online Sociability Function using a categorical criteria ranging from ‘more than once daily’ to ‘less than once per year’.

Personality dimensions were measured using Gosling *et al.*'s Ten Item Personality Inventory (TIPI) scale items (alpha: 0.55). The respondents were asked to rate their level of agreement with different pairs of traits that best described them, on a scale from 1 (strongly disagree) to 7 (strongly agree). The pairs of traits were (1).Extraverted, enthusiastic (2). Critical, quarrelsome (3). Dependable, self-disciplined (4). Anxious, easily upset (5). Open to new experiences, complex (6). Reserved, quiet (7). Sympathetic, warm (8). Disorganized, careless (9). Calm, emotionally stable. (10) Conventional, uncreative. The pairs of traits were then collapsed in to 5 broad personality types (the Big Five Personality factors) using reverse coding. Extraversion was constructed by adding the following two items: extraverted-enthusiastic and reserved-quiet (reversed), Agreeableness was constructed by adding :sympathetic, warm and critical, quarrelsome (reversed), Conscientious was constructed by adding: Dependable, self-disciplined and Disorganized, careless (reversed), Emotional Stability: calm, emotionally stable plus anxious, easily upset (reversed), Openness to Experiences: Open to new experiences, complex plus Conventional, uncreative (reversed). The TIPI scale scoring was done thus (“R” denotes reverse-scored

items): Extraversion: 1, 6R; Agreeableness: 2R, 7; Conscientiousness; 3, 8R; Emotional Stability: 4R, 9; Openness to Experiences: 5, 10R. The relevance of the Big Five personality factors has been validated by research and empirical testing across cultures. Researchers have shown this model to be widely replicable (McCrae and John, 1992) and useful in investigating online social media use, such as Facebook (Amichai, Hamburger and Vinitzky, 2010; Correa, Hinsley, and de Zúñiga, 2010; Ross *et al.*, 2009)

**Table 3. Descriptive Statistics of the 'Big Five' scale items**

Big Five Personality Scale Items	Mean	S.D	S.E
Extraversion	1.49	0.32	.033*
Agreeableness	1.52	0.33	.033*
Conscientiousness	1.44	0.32	.033**
Emotional stability	1.47	0.34	.035*
Openness to experience	1.54	0.30	.030*

Note: \*p = .000

## RESULTS

### Facebook use and Demographic Profile of respondents

56% of the respondents belonged to the older age category while 44% were younger. 35% were in the 21 to 26 years category, 32% were 32 years and above, 19% were between 15 to 20 years, 12% between 27 to 31 years and 1% belonged to the below 15 category. A high percentage (91%) of the respondents were early adopters of Facebook. A higher percentage (52%) of the respondents had lower number of friends on Facebook. A majority of respondents in the 'older' age category (96%) were early adopters of Facebook ( $X^2 = 4.497 = 1$ ,  $p = 0.034$ ), of which a higher percentage (93%) were females. The younger age group respondents (77%) had higher number of friends ( $X^2 = 24.752 = 1$ ,  $p = 0.000$ ) of which a higher percentage (50%) were males. Regarding time spent of Facebook per day, 65% of participants reported that they spent between 10 and 30 min on Facebook daily, 28% spent less than 10 minutes, 18% spent 31 to 60 minutes, 9% spent 1 to 2 hours, 5% spent 2 to 3 hours and 3% more than 3 hours. A higher percentage (82%) of younger males spent more time on Facebook than females. A majority of the younger age group respondents (81%) spent more time on Facebook on a typical day than their older counterparts ( $X^2 = 9.178 = 1$ ,  $p = 0.002$ ). A higher percentage of respondents (52%) had lower number of friends on Facebook, with the younger category (77%) having a higher number of friends than their older counterparts ( $X^2 = 24.752 = 1$ ,  $p = 0.000$ ). Females (53%) had lower number of friends than males.

Pearson's Correlation coefficient showed negative correlation between Age and some Attitude towards Facebook variables (see table 4). A higher percentage of respondents between the age groups 27 to 31 years showed higher values for Attitudes towards Facebook in terms of: Facebook being a part of their everyday activity (83%), for dedicating part of their daily schedule to Facebook (67%), for feeling a sense of belonging with the Facebook community (75%), feeling sad if Facebook shut down (75%), and feeling satisfied with Facebook (67%) ( $X^2 = 12.89 = 4$ ,  $p = 0.012$ ). A higher percentage of respondents belonging to the '32 years and above' category felt a sense of pride in telling people they were on Facebook (81%), and felt out of touch if they hadn't logged on to Facebook for a while (68%) ( $X^2 = 3.43 = 4$ ,  $p = 0.009$ ). The most preferred Facebook Online Sociability Functions features were Posting on others' walls ( $M = 4.53$ ,  $SD = 2.42$ ), Sending private messages ( $M = 4.30$ ,  $SD = 2.57$ ) and Commenting on Others' photos ( $M = 3.97$ ,  $SD = 2.31$ ). Using Facebook during working hours ( $M = 3.22$ ,  $SD = 2.39$ ) and Checking one's Wall ( $M = 2.68$ ,  $SD = 1.95$ ) were the least preferred. It was observed that a higher percentage of respondents between the ages 15 to 20 years showed greater propensity towards online sociability functions of Facebook in terms of using Facebook: during working hours (74%) ( $X^2 = 16.33 = 4$ ,  $p = 0.003$ ), to comment on others' photos (68%) ( $X^2 = 12.72 = 4$ ,  $p = 0.013$ ), posting on others'

walls (68%) ( $X^2 = 10.00 = 4$ ,  $p = 0.040$ ), for sending private messages (68%) ( $X^2 = 16.47 = 4$ ,  $p = 0.002$ ). Respondents between 21 to 26 years had higher percentages (79%) for using Facebook to check on their own wall ( $X^2 = 17.46 = 4$ ,  $p = 0.002$ ).

### Personality traits, Time spent on Facebook and Number of Facebook friends

Those with higher levels of Extraversion, Agreeableness Conscientiousness Emotional Stability and those Open to Experiences had higher percentages for spending an average of 10 to 30 minutes per day on Facebook (43%, 32%, 35%, 42% and 52% respectively). Those who had high levels of Extraversion, lower agreeableness, higher conscientiousness, lower levels of emotional stability and lower level of openness to experience had higher percentage of friends (52%, 52%, 50%, 51% and 50% respectively)

### Personality Traits and Demographic Variables of Respondents

Overall results showed that a higher percentage of Facebook users reported lower levels of Extraversion (78%), higher levels of Agreeableness (76%), lower levels of Conscientiousness (73%), lower levels of Emotional Stability (73%), and higher levels of Openness to Experience (77%) Respondents in the age group 27 to 31 years (50%) had higher levels of extraversion and conscientiousness. Higher percentage of respondents between 15 to 20 years had higher agreeableness and openness to experience (94% and 90% respectively), those between 21 and 26 years (32%) had emotional stability. Males showed higher extraversion (25%) agreeableness (80%) and emotional stability (32%) than females (19%, 74% and 23% respectively). Females were more conscientious (30%) and more open to experiences (83%) than males (23%, and 71% respectively).

Those with lower extraversion had a higher percentage for amount of time on Facebook per day (60%) and higher percentage for number of friends on Facebook (53%). The covariance of Age and Gender with indicators of Facebook use, Attitude towards Facebook Online Sociability Function of Facebook and Big Five personality variables was calculated using Pearson's product-moment correlation coefficient (two tailed) (see Tables 4 to 7). Gender was not a significant predictor of indicators of Facebook use, Attitude towards Facebook Online Sociability Function of Facebook or Personality Traits. Age was not a significant predictor of Personality traits. Results (Table 4) showed Age to significantly correlate (negatively) with Facebook Adoption  $r (-.200)$ ,  $p = .049$ , Number of friends on Facebook  $r (-.486)$ ,  $p = .000$ , and Time spent on Facebook  $r (-.548)$ ,  $p = .000$  Pearson's product-moment correlation coefficient (two tailed) was calculated for covariance between personality traits and Attitudes and Online Sociability. There was significant positive correlation between Extraversion and five 'Attitudes' variables (see Table 5). There was negative correlation between Extraversion and using Facebook to post on others' walls. Conscientiousness and Emotional stability were positively correlated with using Facebook to send private message. Exploratory analyses revealed no significant differences in terms of gender on Attitudes and Online Sociability functions of Facebook users. But there were significant differences in terms of age. Since the standard deviation for the age variable showed considerable difference, Mann-Whitney U test was employed as an alternative to t-test.

Results revealed that older people scored more on their Attitude towards Facebook (table 9). Older people regard being on Facebook as being an integral part of their everyday activity ( $z = -2.42$ ,  $p = .01$ ), feel a sense of belonging with the Facebook 'community' ( $z = -2.81$ ,  $p = .005$ ), feel out of touch when they have not logged on for some time ( $z = -3.15$ ,  $p = .002$ ), would feel sorry if Facebook were to shut down ( $z = -2.00$ ,  $p = .045$ ) and expressed more satisfaction with Facebook than younger respondents ( $z = -2.31$ ,  $p = .02$ ). Online Sociability Functions of Facebook

**Table 4. Table 3. Age \* Facebook use Correlations**

Demographic variable	Facebook use variables
	Facebook Adoption      Number of friends on Facebook      Time spent on Facebook
Age	-.200*      -.486**      -.548**

\*\*Correlation is significant at the 0.01 level (2-tailed).  
\*Correlation is significant at the 0.05 level (2-tailed).

**Table 5. Age \* Attitude Towards Facebook Correlations**

Demographic variable	Attitude towards Facebook variables
	Facebook is a part of my everyday activity      I feel out of touch when I haven't logged on to Facebook for a while      I feel I am part of the Facebook community      I would be sad if Facebook shut down
Age	-.272**      -.341**      -.250**      -.200**

\*\*Correlation is significant at the 0.01 level (2-tailed)

**Table 6. Age \* Online Sociability Function Correlations**

Demographic variable	Online Sociability Function of Facebook variables
	Using Facebook during working hours      Using Facebook to comment on others' photos      Using Facebook to post on others' walls      Using Facebook to check on your own wall      Using Facebook to send private messages
Age	.452**      .541**      .320**      .390**      .377**

\*\*Correlation is significant at the 0.01 level (2-tailed).

**Table 7. Attitude towards Facebook, Online Sociability Functions and Personality Traits Correlation Matrix**

Big Five variables	Facebook use		Attitude towards Facebook variables					Online Sociability Functions of Facebook variables			
	No. of FB friends	Time spent on FB	FB is part of my everyday activity	I am proud to tell people I am on FB	I dedicate part of my daily schedule to FB	I feel out of touch when I haven't logged on to FB for a while	I feel I am part of the FB community	I would be sad if FB shut down	Using FB to post on others' walls	Using FB to check on your own wall	Using FB to send private messages
extraversion	.201*	.385*	.305**	.310**	.273**	.306**	.249**	.335**	-.233*	-	-
conscientiousness	-	-	-	-	-	-	-	-	-	-	.285**
emotional stability	-	-	-	-	-	-	-	-	-	-	.275**

\*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed).

**Table 8. Big Five Variables Correlation Matrix**

Big Five variables	extraversion	conscientiousness	emotional stability	open to experiences
extraversion	-	.242*	-	.291**
conscientiousness	.242*	-	.377**	-
emotional stability	-	.377**	-	-
open to experiences	.291**	.442**	-	-

\*\*Correlation is significant at the 0.01 level (2-tailed).  
\*Correlation is significant at the 0.05 level (2-tailed).

**Table 9. Man Whitney U: Age\* Attitude towards Facebook**

Attitude towards Facebook variable	Variable Age	N	Mean	S.D	P value	U	Mean rank	Z
Facebook is a part of my everyday activity	Older	54	3.3148	1.19471	.015	910.00	55.00	-2.423
	Younger	43	2.6977	1.26368			41.47	
I feel out of touch when I haven't logged on to Facebook for a while	Older	54	3.2222	1.09315	.002	754.50	56.81	-3.157
	Younger	43	2.4884	1.20262			39.20	
I feel I am part of the Facebook community	Older	54	3.5185	0.90576	.005	862.00	55.75	-2.812
	Younger	43	2.9070	1.10871			40.52	
I would be sad if Facebook shut down	Older	54	3.4074	1.22117	.045	948.00	53.94	-2.001
	Younger	43	2.9070	1.23083			42.79	
I am satisfied with Facebook	Older	54	3.7963	0.65530	.021	954.50	54.06	-2.310
	Younger	43	3.4651	1.09868			42.64	

**Table 10. Man Whitney U: Age\* Online Sociability Functions**

Online Sociability Function of Facebook variable	Variable Age	N	Mean	S.D	P value	U	Mean rank	Z
Using Facebook during working hours	Older	54	2.2963	1.66688	0.000	562.000	37.91	-4.454
	Younger	43	4.3953	2.66494			62.93	
Using Facebook to comment on others' photos	Older	54	2.9815	1.65393	0.000	559.500	37.86	-4.431
	Younger	43	5.2326	2.43816			62.99	
Using Facebook to post on others' walls	Older	54	3.9444	2.36656	0.006	783.00	42.00	-2.768
	Younger	43	5.2791	2.31276			57.79	
Using Facebook to check on your own wall	Older	54	2.0000	1.31752	0.000	606.500	38.73	-4.165
	Younger	43	3.5349	2.27145			61.90	
Using Facebook to send private messages	Older	54	3.4444	2.27925	0.000	663.000	39.78	-3.649
	Younger	43	5.3953	2.54614			60.58	

differed significantly on age (Table 10). Younger respondents were more prone to using Facebook's sociability functions such as using Facebook during working hours ( $z=-4.45, p=.000$ ), commenting on others' photos ( $z=-4.43, p=.000$ ), posting messages on others' walls ( $z=-2.76, p=.006$ ), checking their own wall ( $z=-4.16, p=.000$ ), and sending private messages ( $z=-3.64, p=.000$ ) than their older counterparts. Effect of Personality determinants on attitudes and online sociability functions of Facebook users were also studied to check if there were significant differences between groups using Mann Whitney U test. Results revealed significant differences in terms of Extraversion and Openness to Experience on Attitudes Towards Facebook, and Extraversion, Conscientiousness and Emotional Stability on Online Sociability Functions. (See Tables 11 and 12)

**Table 11. Man Whitney U: Attitude towards Facebook \* Extraversion/ Openness to Experience**

Attitude towards Facebook variable	Variable Extraversion	N	Mean	S.D	P value	U	Mean rank	Z
Facebook is a part of my everyday activity	Higher	21	2.2857	1.19471	.002	455.500	32.69	-3.089
	Lower	76	3.2500	1.26368			53.51	
I am proud to tell people I am on Facebook	Higher	21	2.7143	1.03486	.048	585.500	38.88	-1.975
	Lower	76	3.1974	1.02245			51.80	
I dedicate part of my daily schedule to Facebook	Higher	21	1.9048	1.08673	.003	468.000	33.29	-3.000
	Lower	76	2.6974	1.07215			53.34	
I feel out of touch when I haven't logged on to Facebook for a while	Higher	21	2.2857	1.09315	.006	495.000	34.57	-2.738
	Lower	76	3.0658	1.20262			52.99	
I feel I am part of the Facebook community	Higher	21	2.8571	0.90576	.032	567.000	38.00	-2.150
	Lower	76	3.3553	1.10871			52.04	
I would be sad if Facebook shut down	Higher	21	2.3333	1.22117	.001	423.000	31.14	-3.390
	Lower	76	3.4211	1.23083			53.93	
Attitude towards Facebook variable	Variable	N	Mean	S.D	P value	U	Mean rank	Z
I am proud to tell people I am on Facebook	Openness to Experience Higher	75	1.2533	1.03486	.006	526.500	45.01	-2.734
	Lower	22	1.5454	1.02245			62.59	

**Table 12. Man Whitney U: Online Sociability Functions \* Emotional Stability**

Online Sociability Function of Facebook variable	Variable Emotional Stability	N	Mean	S.D	P value	U	Mean rank	Z
Using Facebook to send private messages	Higher	26	3.0000	1.9799	0.003	556.000	907.00	-3.016
	Lower	71	4.7887	2.6181			3846.00	

Those with lower levels of Extraversion regarded being on Facebook as being an integral part of their everyday activity ( $z=-3.08, p=.002$ ), feel a sense of pride in telling people they are on Facebook ( $z=-1.97, p=.048$ ), dedicate a part of their daily schedule to Facebook ( $z=-3.00, p=.003$ ), feel a sense of belonging with the Facebook 'community' ( $z=-2.15, p=.032$ ), feel out of touch when they have not logged on for some time ( $z=-2.73, p=.006$ ) and would feel sad if Facebook were to shut down ( $z=-3.39, p=.001$ ) than those with higher levels of Extraversion. Those with lower levels of Openness to Experience ( $z=-2.73, p=.006$ ) feel a sense of pride in telling people they are on Facebook than those who are more open to experiences Those with lower levels of Emotional Stability ( $z=-3.01, p=.003$ ) use Facebook to send private messages.

## DISCUSSION

The current study aims to ascertain whether Facebook users differed significantly with their usage, attitudes towards facebook and online sociability functions in terms of age, gender and personality traits associated with being a Facebook user. Facebook users in the study reported lower levels of Extraversion, higher levels of Agreeableness, lower levels of Conscientiousness, lower levels of Emotional Stability, and higher levels of Openness to Experience. It was anticipated from their literature review that overall, the respondents would generally exhibit high levels of extraversion. But this was not the case. This may be because all the other studies used college students as samples while this study covered wider age groups. Respondents between 27 to 31 years had higher levels of extraversion and conscientious and openness to experiences. Respondents between

15 to 20 years were agreeable in nature. Those between 21 to 26 were more emotionally stable. Males showed higher extraversion, agreeableness and emotional stability than females. Females were more conscientious and more open to experiences than males. Introverted individuals spent more time on Facebook per day and had more number of friends on Facebook. This result might point towards an online-offline phenomenon, wherein introverts in the real world might seek for a compensation for paucity of friendship in the virtual social world, by having a wide network of friends. In this kind of scenario, the depth of these kinds of friendship needs would be a fascinating area of study. Correlations between the Personality traits and various indicators of Facebook use such as attitudes and online sociability function did point towards a relationship between the variables.

One of the most surprising findings of the present study was the relatively few significant differences in relation to the personality variables such as Agreeableness and Openness to Experience. Respondents differed significantly on Extraversion in relation to Attitudes towards Facebook. Respondents with lower Extraversion viewed Facebook as a part of their everyday activity, were proud to tell people they were on Facebook, felt part of the Facebook community, felt out of touch if they hadn't logged on for a while, dedicated part of their daily schedule to it, and would feel sorry if Facebook were to shut down. This showed that even though respondents were not outgoing and showing high sociability, they did want to be a part of Facebook. This could be explained by their high levels of Openness to Experience (77%) that correlated positively with Extraversion ( $r=.291, p=.004$ ) (see table 8). Greater openness to experiences led them to appreciate diverse views, ideas, and experiences that Facebook offered them.

Those with lower levels of emotional stability showed more propensity to send private messages on Facebook. To answer the question "Does relationship between personality traits and indicators of Facebook use differ by age?" the study showed that Age negatively correlated with Facebook adoption, Number of friends on Facebook, and Time spent on Facebook. Older people scored more on their Attitude towards Facebook. This somewhat replicates the results of Moorman and Bowker (2011), who found older participants to be more engaged on Facebook as a daily routine. Younger respondents were more prone to using Facebook's sociability functions than their older counterparts. Exploratory analyses revealed no significant

differences in terms of gender on Attitudes and Online Sociability functions of Facebook users.

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