

# The Relationship Between Personality Traits and Social Media Use

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**Abstract**

*Existing literature has previously highlighted the effects of the dimensions of the Big Five Model of personality on social media use. The present study aims to investigate the influence of these personality factors on social media use, thus expanding on the previous research. A questionnaire based, quantitative design was adopted. Participants, recruited from the general population (N = 81), were requested to complete a report, providing the relevant demographic information, the Big Five Personality Questionnaire and The Social Media Use Questionnaire, taking approximately 5-10 minutes. Spearman's rho correlation revealed a positive relationship between extraversion and social media use, negative relationships between the predictor variables of conscientiousness, neuroticism and age with social media use. Results further revealed non-significant differences in levels of openness to new experience and agreeableness regarding the use of social media. How the implications of this study may be of benefit to educators, marketers and advertisers, and politicians are discussed.*

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## Introduction

Much attention has been afforded to the psychology of personality in recent years. Within the study of clinical, cultural, developmental and social psychology, the personality trait concept has developed a powerful status (McAdams & Pals, 2006). Under a five-factor model (FFM) of personality, it has been suggested that the measures of personality can be reduced and structured from the evidence that has emerged (Goldberg, 1990). This model provides for academics, clinicians and scientists, a broad outline from five central principles of what should be considered when individual human behaviours are being examined psychologically (King, George & Hebl, 2005). The personality outcomes for this complex model are labelled as follows: openness to new experience, conscientiousness, extraversion, agreeableness and neuroticism (Costa & McCrae, 1992). This model has become the universal, standard measurement for personality traits and characteristics in recent times since gaining vast empirical support (Wehrli, 2008).

There has been an evolution in the way in which people communicate over the internet in the last 15 years. Social networking sites, blogs and content sharing sites are being used by individuals from diverse demographic backgrounds to discuss, share, adjust and create content. This has led to the emergence of the social media phenomenon (MacFarland & Ployhart, 2015). Those who use social networking sites can present attractive and alluring portrayals of themselves and their personal life, find others who have similar interests, and connect with friends. This phenomenon that the population is experiencing is expressed through the very popular feature of self-presentation that these social media sites / social networking sites (SNS) provide for their users (Krämer & Winter, 2008). A motivating principle that underlies social media usage is an individual's ability to establish personal identity (Gil de Zúñiga, Jung, & Valenzuela, 2012). The ages, genders and occupations of those spending time online on SNS varies (Correa, Hinsley & Gil de Zúñiga, 2010; Mislove,

Lehmann, Ahn, Onnela, & Rosenquist, 2011). Given the mixed findings from existing studies, there is need for further research into the amount of time individuals are spending on SNS and the reasons why they may do so.

### **The Big Five Personality Traits**

To date, the FFM of personality is deemed to be the most comprehensive one that exists in this field of study for the measurement of traits and characteristics after gaining large empirical support (Costa & McCrae, 1992; Wehrli, 2008). Individual's behaviour can be examined in a wide array of contexts, including activity on SNS (Devaraj, Easley & Grant, 2008), through the five personality factors (Wehrli, 2008).

### **Openness to New Experience**

Individuals who are open to new experiences possess a willingness or desire to explore alternative approaches in life. Those who score high on the openness trait tend to be adventurous and creative, less traditional, intellectually curious, abstract thinkers, and have an overall greater tolerance for things or settings that are unfamiliar or novel (Costa & McCrae, 1992; George & Zhuo, 2001; McCrae & Terracciano, 2005; Ross et al., 2009). It has also been discovered by several studies that there is a positive correlation between openness to new experience and higher levels of social media usage (Butt & Phillips, 2008; Guadagno, Okdie & Eno, 2008; Correa et al., 2010).

### **Conscientiousness**

The trait of conscientiousness is identified often as following impulse control's socially prescribed norms, being goal orientated, possessing an ability to plan and be able to delay gratification (Roberts, Jackson, Fayard, Edmonds & Meints, 2009). Those with high levels of conscientiousness have innate desires and drives to be productive and are determined (Chemorro-Premuzic, 2013). They believe SNS act as a distraction and lead to

procrastination, and therefore they refrain from social media usage (Butt & Phillips, 2008). These findings are in line with those of other studies (Landers & Lounsbury, 2006; Wehrli, 2008; Wilson, Fornasier & White, 2010).

### **Extraversion**

At one end of the FFM continuum is extraversion, with introversion being at the opposite end. Compared to introverts, extraverted individuals tend to be more adventurous, appreciate excitement and enjoy the company of other people (Carducci, 2009). Wehrli (2008) suggests that extraverts have a positive association with communication, and therefore are provided with the motivation to use SNS. Furthermore, extraversion has been found to be a positive predictor of social media use (Correa et al., 2010). The belief that introverts use their SNS profiles to locate their real-self is commonly shared, while extraverts use face-to-face interaction offline in the real world to share their true identity (Hamburger & Ben-Artzi, 2000).

### **Agreeableness**

Agreeableness is primarily specified by the social adaptability and interpersonal qualities of an individual. Their interactions with others relate to the helpful characteristics, cooperativeness, affection, warmth and kindness held within themselves (Moore & McElroy, 2012). Agreeable characters are those who have a willingness to accommodate the wishes and feelings of others (Caspi, Roberts & Shiner, 2005). Some studies support the idea that the behaviour of people both on SNS and in face-to-face engagements are mirrored. This suggests that since those who score high in agreeableness tend to lean towards more prosocial behaviour, they will be inclined to avoid forms of communication where direct contact is not supported, therefore preferring real-life social interactions (Valkenburg, Schouten & Peter, 2005; Butt & Phillips, 2008).



## **Neuroticism**

Neuroticism primarily specifies an individual's emotional stability where those who score highly on the trait have a greater liability to experience negative emotions such as guilt, anger, anxiety and depression (Widiger, 2009). Neuroticism's underlying mechanisms, in general, point to positive psychological adjustment being absent along with the observation of emotional instability in people (Seidman, 2013). Individuals who are highly neurotic contain a strong interest in being on the internet and utilising SNS as they are motivated to meet new people due to their loneliness, therefore spending large amounts of time online (Butt & Phillips, 2008). Tsitsika et al. (2011) found neuroticism to be linked with the onset of internet addiction, and that this risk factor made emotionally unstable individuals more at risk to devoting unusually high portions of time online and to the internet addiction's adverse effects (Yao, He, Ko & Pang, 2014).

## **Social Media**

Social media allow opportunistic interaction for users through internet-based channels and further allows them, either asynchronously or in real-time, to selectively self-present with audiences both broad and narrow. Users derive value from other user-generated content and the perceived experience of interacting with others (Carr & Hayes, 2015). Particularly among young adults, SNS have seen an increase in use, with as many as 90% of young adults in the United States using social media. The majority of these individuals visit SNS at least once a day, while 20% of time spent on personal computers is for the use of social media accounts and 30% of the time spent online on smart phones (Lin et al., 2016). Tapping into an apparently dormant demand for social networking, the services offered by SNS quickly emerged as both social and business phenomena. Launched in 2004, Facebook has amassed an active worldwide monthly userbase of 1.4 billion, while Twitter, which started in 2006,

generates 500 million tweets daily from its 288 million active monthly users (Obar & Wildman, 2015).

Through the construction of SNS profiles, which act as online self-presentations, the user has the freedom to divulge the aspects of their personality that they choose and share specific photos to their online friends. As opposed to communication done face-to-face in the present world, these options allow users to more strategically manage their self-presentation (Ellison, Heino & Gibs 2006).

Despite the sizeable role SNS have formed in today's society, there has been minimal research regarding the preceding circumstances of SNS usage (Ryan & Xenos, 2011). However, motivation behind the current study stems from the existence of a small of body of research that online and social networking behaviour is influenced and guided by individual differences.

A study by Engelberg and Sjöberg (2004) included other individual differences in their research when examining the extent to which levels of SNS usage were related to personality. Despite involving the "Big Five" dimensions of personality in their investigation, no link was discovered between SNS usage levels and personality differences. Findings however did suggest an indication for the investigations of future studies, as frequent SNS users were found to be lonely and possess largely deviant attributes and values that certain personality types are correlated with. Other studies investigating the relationship between personality dimensions and SNS usage have revealed that these sites provide an ideal platform for those who score high on narcissism to self-regulate. This leads to the maintenance of SNS based relationships that are superficial and allows their self-presentation to be fully controlled (Buffardi & Campbell, 2008; Ong et al., 2011).

Existing evidence has suggested that internet and SNS behaviour can be predicted better by the FFM of personality than any other individual differences (Devaraj et al., 2008; Ryan & Xenos, 2011). Wilson et al. (2010) also aimed to use personality traits and attributes for their investigation into predicting SNS use by adolescents. Findings from their study revealed SNS usage was significantly predicted by personality traits, with unconscientious and extraverted participants particularly reporting greater levels.

### **Platforms of Use**

Examples of various forms of SNS are discussed below, as are the studies that have related these social media platforms to personality dimensions.

Perhaps the most well-known SNS platform, Facebook, allows users to create an online profile of their own self-presentation with “friends” who are able to “like”, comment on and share their uploaded content. Based on shared interests, users can join virtual groups or learn about other’s interests, hobbies, education status and relationship status (Nadkarni & Hofmann, 2012). In studies measuring personality traits in relation to Facebook usage, higher levels in extraversion has repeatedly been found to be positively correlated with frequency of use, a result that was also found for neuroticism (Andreassen, Torsheim, Brunborg & Pallesen, 2012; Bachrach, Kosinski, Graepel, Kohli & Stillwell, 2012; Moore & McElroy, 2012; Seidman, 2013).

Another hugely popular social media platform is Instagram. The site centres around users being able to upload photos or videos which can then be edited with the various tools available. Captions and trend tags (using the # symbol) may be added to describe uploaded photos and a link to the profiles of other users, who can be mentioned using the @ symbol. Users may choose to “follow” other profiles so their uploaded content will appear on the present user’s Instagram feed. Due to privacy features, some profiles may only be visible if a

user is a “follower” of that profile. Ferwerda, Schedl and Tkalcic (2015) aimed to investigate if personality traits could be inferred from the editing and “filtering” of users’ uploaded Instagram posts. Results from their study found that distinct features of Instagram filters (brightness, saturation and hue) have positive correlations to individual users’ observed personality traits, suggesting revelations can be made from SNS regarding the personality types of users.

Snapchat is an application whereby users can send “snaps” with friends that, once opened, will disappear forever. These snaps may be a photo or video that the user has edited with captions, filters or drawings, and the user may also determine the length of time the recipient has to view this snap. While it may be possible for a recipient to make a screenshot of a snap, this will notify the sender if done so. The application also informs users of who their “best friends” are based on how much interaction is had with other users (Bayer, Ellison, Schoenebeck & Falk, 2016). Research has found that highly neurotic individuals are more likely to experience SNS jealousy, with Snapchat generating greater levels of jealousy for neurotic individuals than Facebook use (Utz & Beukeboom, 2011; Utz, Khalid & Muscanell, 2015).

### **Present Study**

There could potentially be benefits to many as a result of research in this area. Those in the field of education may benefit from greater research into social media, as it is increasingly becoming a major tool in modern learning (McGloughlin & Lee, 2010). With advertising now having a massive presence on various SNS (Kumar, Bezawada, Rishika, Janakiraman & Kannan, 2016), marketers and advertisers would benefit from further research into social media usage and the personality dimensions of its users, as this would allow them to better understand the SNS behaviours of their potential consumers. Similarly, politicians

looking to spread their messages and gain followers through social media would benefit from the findings of the current study.

There exists substantial literature examining the influence of various personality traits on social media use (Butt & Phillips, 2008; Wehrli, 2008; Wilson et al., 2010; Golbeck, Robles & Turner, 2011). However, the findings on the effects of certain personality traits on social media use are at times conflicting, casting uncertainty over how indicative particular personality dimensions are at predicting social media use.

Those who score higher in agreeableness are more likely to preference face-to-face communication over SNS communication, as feelings and emotions are expressed more sincerely in person (Johnson, Rickel & Lester, 2000; Valkenburg et al., 2005), therefore suggesting agreeableness will have a negative relationship with social media use. Although, other research has found agreeableness to be a positive predictor of social media use (Gil de Zúñiga, Diehl, Huber & Liu, 2017). Largely however, agreeableness has been found to be unrelated to social media usage (Ross et al., 2009; Correa et al., 2010; Amichai-Hamburger & Vinitzky, 2010).

There is a continuous spreading of social media use amongst older adults as well as young, with the number of older adults using the internet increasing. Of those in the United States aged 65 years and older, half are now online, with SNS such as Facebook and LinkedIn being used by every third senior online. There are multiple motivations for older adults to use social media. Especially if engagement is continuous, many experience enjoyment during use. SNS provide social contact which can overcome night time loneliness and keep older users up-to-date on the lives of acquaintances and family members. Finally, SNS offer social support, whether that be in relation to coping with illnesses or addiction (Leist, 2013). Therefore, for the present study it was decided to include no exclusion criteria

for the age of participants. However, it was still expected for the older participants to report lower levels of social media use, as Chou, Hunt, Beckjord, Moser and Hesse (2009) state that subsequent older age groups have increasingly lower levels of social media use compared to that of younger adults.

As such, following the research on social media and the personality traits discussed above, the following hypotheses have been formulated:

**Hypothesis 1:** The personality trait of extraversion will be positively correlated with social media use.

**Hypothesis 2:** The personality trait of conscientiousness will be negatively correlated with social media use.

**Hypothesis 3:** The personality trait of openness to new experience will be positively correlated with social media use.

**Hypothesis 4:** The personality trait of neuroticism will be positively correlated with social media use.

With the intention of providing greater perspective on the aforementioned research gaps, the main aims of the current study are as follows:

**Aim 1:** The personality trait of agreeableness will have no influence on social media use.

**Aim 2:** Age will be negatively correlated with social media use.

## **Method**

### **Participants**

A non-probability sample of 81 ( $N = 81$ ) participants (33 males, 48 females) from the general population, ranging in age from 18-67 ( $M = 28.14$ ,  $SD = 12.66$ ), completed the following study. Researchers gathered participants via online platforms. Individuals who wished to participate in the study did so by completing the online survey. All were welcome to partake in the research, given there were no exclusion criteria being used.

### **Design**

The relevant information for the current study was gathered using an online questionnaire. This made for a more convenient research process for both the researchers and participants. Participants could complete the questionnaire at their own pace and at any time. The utilisation of an online questionnaire further allowed for a broader sample to be reached in quicker time than that of an in-person questionnaire. Research time was also reduced as the response data was readily available for analyses.

For more objective, reputable and reliable results to be produced, a quantitative investigation was carried out. This made results more generalisable to the population and reduced researcher biases.

This design allowed for the investigation of the relationship between the criterion variable “social media use” and the predictor variables “Openness to new experience”, “Conscientiousness”, “Extraversion”, “Agreeableness”, “Neuroticism” and “Age”.

Hence, a questionnaire based, quantitative study was performed for the following research.

The answers provided on social media usage were combined to provide a total score for social media use. Each participant's total score for each personality trait was also computed.

Due to a lack of normally distributed data, Spearman's rho correlation was the statistical method adopted to investigate H1, H2, H3, H4, aim 1 and aim 2.

## **Measures**

### **Demographic Information**

Participants were asked to provide their gender and age at the beginning of the questionnaire (see Appendix A). No further personal information was requested by the researchers.

### **The Big Five Personality Questionnaire**

Participants scores on each of the Five Factor Model's personality traits were measured using the 50-item Big Five Questionnaire (Goldberg, 1990) (see Appendix B). Participants were presented with statements relating to personal behaviour and thoughts and were asked to indicate how much they agree with each statement using a 5-point Likert scale, ranging from 1 (disagree) to 5 (agree). A total score for each of the five personality traits were provided by later computing the 10 bipolar adjective scales that the Big Five Questionnaire presents (see Appendix C). Each calculated personality dimension ranged in score from 0-40.



The Big Five Factor Model of Personality is considered the most universal and standard measurement of personality traits having gained vast empirical support (O'Connor & Paunonen, 2007; Wehrli, 2008). Furthermore, it has generated reliability across various cultures, languages and sample types (John & Srivastava, 1999).

The Big Five Factor Model of Personality has also been shown to be adequately reliable following indication from previous studies. Zamarano, Carillo, Silva, Sandoval and Pastrana (2014) generated a complete scale reliability score of Cronbach's  $\alpha = .72$ , while reliability scores for the five traits were also reported; openness to new experience = .77, conscientiousness = .78, extraversion = .76, agreeableness = .62 and neuroticism = .74.

### **The Social Media Use Questionnaire (SMUQ)**

The Social Media Use Questionnaire (Xanidis & Brignell, 2016) is a 9-item questionnaire measuring social media use on a five-point Likert scale, ranging from 0 (never) to 4 (always). Items included statements such as "I lose track of time, when using social networking sites" and "I struggle to stay in places, where I won't be able to access social network sites" (see Appendix D). All items were averaged into one mean index, where a higher score implies more social media use. Xanidis and Brignell (2016) performed internal reliability analysis of the SMUQ, reporting a score of Cronbach's  $\alpha = .83$  for the Withdrawal component and  $\alpha = .82$  for the Compulsion component. For all items of the SMUQ, an even higher Cronbach's alpha was reported,  $\alpha = .87$ .

Kircaburun, Alhabash, Tosuntas and Griffiths (2018) adapted the SMUQ into Turkish for their study (N = 1008) and confirmed the valid structure of the scale through confirmatory factor analysis. For this study, Cronbach's alpha was  $\alpha = .85$  (see Appendix E).

The two components of Withdrawal and Compulsion for the current study were found to be significantly correlated ( $r = .71$ ). Therefore, subsequent analyses were conducted with the subscales together, providing a single score for social media use.

## **Procedure**

Researchers shared the questionnaire through various online platforms alongside a brief description of what the current research entailed and how one may participate in the study. Individuals who wished to partake in the study did so by completing the questionnaire.

Participants were encouraged to read the information sheet presented to them before continuing with the rest of the questionnaire. Each questionnaire was completed through Google Forms and took 5-10 minutes to complete. Participants could begin the questionnaire at any chosen time and complete it at their own pace.

The first part of the questionnaire was the demographics section, where participants provided personal details on their gender and age.

The second part of the questionnaire asked participants to complete the Big Five Personality test, where they provided an indication of the extent to which they agreed with statements outlined on a 5-point Likert scale ranging from 1 (disagree) to 5 (agree).

Finally, the SMUQ was completed by participants. Presented with statements involving behaviours and attitudes relating to social media use, they were asked to provide an answer for each statement on a 5-point Likert scale ranging from 0 (never) to 4 (always).

Once the participant had provided their answers and submitted the completed questionnaire, the data was stored following the guidelines outlined by the National College of Ireland.

Data collection for the current study was carried out from the 1<sup>st</sup> February to the 15<sup>th</sup> of March 2019.

The compiled data from each completed questionnaire was inputted into IBM SPSS Statistics 25.0. Analyses were performed using the IBM SPSS Statistics 25.0 program.

## Results

### Descriptive Statistics

**Table 1.** Frequencies for the current sample for each categorical variable (N = 81)

<b>Variable</b>	<b>Frequency</b>	<b>Valid Percentage</b>
<i>Gender</i>		
Male	33	40.70
Female	48	59.30

The descriptive statistics for age, openness to new experience, conscientiousness, extraversion, agreeableness, neuroticism and social media use were examined (see Table 2). In order to assess normality for each continuous variable, histograms and normal Q-Q plots were also examined.

The mean score for openness to new experience was calculated ( $M = 24.91$ ,  $SD = 5.69$ ). This indicates that participants scored moderately for this personality trait. There was a normal, bell-curve shape distribution on the histogram. There was a reasonably straight line on the Q-Q plot, suggesting a normal distribution of scores for openness to new experience.

The mean score for conscientiousness was calculated ( $M = 18.15$ ,  $SD = 5.99$ ). This indicates that participants scored moderately low for this personality trait. There was a normal, bell-curve shape distribution on the histogram. There was a straight line on the Q-Q plot, suggesting a normal distribution of scores for conscientiousness.

The mean score for extraversion was calculated ( $M = 25.62$ ,  $SD = 6.77$ ). This indicates that participants scored moderately high for this personality trait. There was a normal, bell-curve shape distribution on the histogram. There was a straight line on the Q-Q plot, suggesting a normal distribution of scores for extraversion.

The mean score for agreeableness was calculated ( $M = 26.86$ ,  $SD = 7.55$ ). This indicates that participants scored moderately high for this personality trait. There was a relatively normal shape distribution on the histogram. There was a reasonably straight line on the Q-Q plot, suggesting a normal distribution of scores for agreeableness.

The mean score for neuroticism was calculated ( $M = 18.64$ ,  $SD = 7.33$ ). This indicates that participants scored moderately for this personality trait. There was a normal, bell-curve shape distribution on the histogram. There was a straight line on the Q-Q plot, suggesting a normal distribution of scores for neuroticism.

The mean score for social media use was calculated ( $M = 14.48$ ,  $SD = 7.28$ ). This indicates that participants scored moderately low for this personality trait. The distribution on the histogram was relatively normal. There was a reasonably straight line on the Q-Q plot, suggesting a normal distribution of scores for social media use.

**Table 2.** Descriptive statistics for all continuous variables

<b>Variable</b>	<b>Mean (95% Confidence Intervals)</b>	<b>Std. Error Mean</b>	<b>Median</b>	<b>SD</b>	<b>Range</b>
Age	28.14 (25.34-30.93)	1.41	23.00	12.66	18.00-67.00
Openness to NE	24.91 (23.65-26.17)	.63	25.00	5.69	13.00-40.00
Conscientiousness	18.15 (16.82-19.47)	.67	18.00	5.99	1.00-30.00
Extraversion	25.62 (24.12-27.11)	.75	25.00	6.77	8.00-39.00
Agreeableness	26.86 (25.20-28.53)	.84	27.00	7.55	11.00-39.00
Neuroticism	18.64 (17.02-20.26)	.81	19.00	7.33	0.00-38.00
Social Media Use	14.48 (12.87-16.09)	.81	15.00	7.28	0.00-36.00

*Note.* Std. Error Mean = Standard Error Mean; NE = New Experience

### **Correlational Analysis**

Due to the violation of the assumption of normality, the relationship between all continuous variables was investigated using Spearman's rho correlation coefficient. Results of the Spearman's rho correlation coefficient are presented in Table 3.

The relationship between age and social media use was investigated. There was a moderate, negative correlation between the two variables ( $r = -.33$ ,  $n = 81$ ,  $p = .00$ ). This indicates that the two variables share approximately 11% of variance in common. Results indicate that social media use decreases as age increases.

The relationship between openness to experience and social media use was investigated. There was a very weak, negative correlation between the two variables ( $r = -.03$ ,  $n = 81$ ,  $p = .76$ ). This indicates that the two variables share approximately 0% of variance in common. Results indicate a non-significant relationship between social media use and openness to new experience.

The relationship between conscientiousness and social media use was investigated. There was a weak, negative correlation between the two variables ( $r = -.24$ ,  $n = 81$ ,  $p = .03$ ). This indicates that the two variables share approximately 6% of variance in common. Results indicate that higher scores in conscientiousness are predictive of less social media use.

The relationship between extraversion and social media use was investigated. There was a weak, positive correlation between the two variables ( $r = .24$ ,  $n = 81$ ,  $p = .03$ ). This indicates that the two variables share approximately 6% of variance in common. Results indicate that extraversion is associated with greater social media use.

The relationship between agreeableness and social media use was investigated. There was a very weak, negative correlation between the two variables ( $r = -.03$ ,  $n = 81$ ,  $p = .78$ ). This indicates that the two variables share approximately 0% of variance in common. Results indicate a non-significant relationship between agreeableness and social media use.

Finally, the relationship between neuroticism and social media use was investigated. There was a weak, negative correlation between the two variables ( $r = -.23$ ,  $n = 81$ ,  $p = .04$ ).

This indicates that the two variables share approximately 5% of variance in common.

Results indicate that higher scores for neuroticism are associated with lower social media use.

**Table 3.** Correlations between all continuous variables

Variables	1	2	3	4	5	6	7
1. Age	1						
2. Openness to NE	-.03	1					
3. Conscientiousness	.17	.16	1				
4. Extraversion	.16	-.07	-.25*	1			
5. Agreeableness	.26*	.25*	.31**	.30**	1		
6. Neuroticism	.05	.03	-.09	.18	-.15	1	
7. Social Media Use	-.33**	-.03	-.24*	.24*	-.03	-.23*	1

*Note.* NE = New Experience; Statistical significance: \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$



## Discussion

The primary objective of this study was to investigate how effective the personality traits of openness to new experience, conscientiousness, agreeableness, extraversion and neuroticism are at indicating levels of social media use. This objective was formulated based on existing research suggesting that personality traits are credible predictors of internet and SNS use (Butt & Phillips, 2008; Wehrli, 2008; Correa et al., 2010; Hughes, Rowe, Mark Batey & Lee, 2012). It was prospectively examined that by examining the relationships between the various personality traits and social media use, greater insight into the psychological motivations of individuals who frequently use social media and why they may choose to do so. Furthermore, with internet and social media use increasing in older age groups (Leist, 2013), it was explored whether age was a predicting factor in social media use.

For the exploration of these objectives, four hypotheses and two aims were presented. For the investigation of the effects of personality, it was posited that differences would be observed across the various traits with regard to social media use.

The relationship between the personality trait of openness to new experience and social media use was investigated. The associated hypothesis was “the personality trait of openness to new experience will be positively correlated with social media use”. Results failed to support this hypothesis, with insignificant differences in reported levels of openness to new experience and social media use being revealed. These findings would allow one to conclude that the personality trait of openness to new experience is not a predictor of social media use. However, the insignificance of this result may be due to the small sample size utilized. Larger effect sizes could be exposed with the inclusion of more participants.

These findings are not concurrent with those of Butt and Phillips (2008), Guadagno et al. (2008) and Correa et al. (2010).

In a world where social media use is becoming ever more widespread (Lin et al., 2016), those who score highly in openness may not adhere to the use of this modern platform of socialising, as individuals high in openness to experience typically exhibit behaviours that are non-conformist (Feist & Brady, 2004). Self-fulfilment rather than social norms may be of greater interest to these persons. This may serve to offer an explanation as to why openness was found to be neither a positive or negative predictor of social media use.

The relationship between the personality trait of conscientiousness and social media use was also investigated. The stated hypothesis was “the personality trait of conscientiousness will be negatively correlated with social media use”. Generated results supported this hypothesis, with a negative, albeit weak, relationship between neuroticism and social media use being reported. It can therefore be concluded that those who score highly on the trait of conscientiousness are less likely to use social media. The limited sample size of 81 participants is a probable explanation for the weak effect size that was obtained. The findings of previous studies are consistent with that of the current research (Landers & Lounsbury, 2006; Wehrli, 2008; Wilson et al., 2010), that being the trait of conscientiousness being negatively associated with social media use.

Given highly conscientious individual’s likelihood of possessing greater levels of discipline (Butt & Phillips, 2008), they may find it easier to avoid using SNS for large amounts of time (Swickert, Hittner, Harris & Herring, 2002). The weak correlation observed may be explained by the dominant work ethic displayed by those who score highly in conscientiousness, as they potentially believe that their propensity for success will not be interrupted if they indulge in social media use. Future studies should aim to investigate the motivations that may encourage conscientious individual’s utilisation of social media.

Furthermore, the association between the personality dimension of extraversion and social media use was investigated. The hypothesis of interest stated, “the personality trait of extraversion will be positively correlated with social media use”. Yielded results revealed a weak, positive association between extraversion and social media, indicating that highly extraverted individuals would be more prone to frequent social media use, therefore supporting the relevant hypothesis. The effect size of this relationship may again be compromised by the sample size of this study. Results are however in line with the findings of Butt and Phillips (2008) and Correa et al. (2010), who both reported a positive relationship between the personality trait of extraversion and social media.

As highly extraverted people may experience real-life social interactions easier than others, their need for communicating online and avoiding face-to-face conversations may not be as high as those who are introverted (Hamburger & Ben-Artizi, 2000; Carducci, 2009). This may explain the weak association between extraversion and social media that was yielded from the results of this study. With this facet of the trait in consideration, future studies should aim to explore the potentially contrasting motivations of extraverts and introverts in relation to social media use.

Alike, the link between the trait of agreeableness and social media use was investigated. The related hypothesis stated that “the personality trait of agreeableness will have no influence on social media use”. Results supported this hypothesis as they showed that agreeableness was not found to influence social media use, and thus, one can conclude that social media cannot be predicted by levels of the trait of agreeableness. The sample size of the current study may once again explain the weak effect size produced.

This finding conflicts the revelation made by Gil de Zúñiga et al. (2017) that suggests agreeableness is a positive predictor of social media use but supports the findings of other

studies that argue the trait of agreeableness has no relation to social media use (Ross et al., 2009; Correa et al., 2010; Amichai-Hamburger & Vinitzky, 2010).

Agreeable individuals have attentive and caring tendencies, and as a result they receive enjoyment from helping others and manifest high levels of empathy (Klimstra, 2013). Therefore, how an agreeable individual can utilise SNS for providing help and support to others may be of interest to future studies.

In addition, an investigation into the relationship between neuroticism and social media use was completed. The associated hypothesis was “the personality trait of neuroticism will be positively correlated with social media use”. Generated results failed to support this hypothesis, as a weak, negative relationship was observed. Therefore, it can be concluded from this research that social media use levels will be lower in those who report higher levels of neuroticism. The weak effect size of this result could again be explained by the small sample size, which was a prevalent and reoccurring issue for the current study.

The results generated from this study are not concurrent with the research of Butt and Phillips (2008). Their finding may be rooted in SNS ability to provide highly neurotic individuals with self-control and therefore allow them to share with others the traits and attributes that they choose, leading to an increased level of social media use (Guadagno, Okdie & Kruse, 2012; Seidman, 2013).

However, the observed negative relationship between neuroticism and social media use may be explained by highly neurotic individuals having less friends to add to their social contact lists due to their tendencies to exhibit restless, impulsive, volatile, tense and aggressive behaviour (Chemorro-Premuzic, 2013).

Finally, an exploration of the association between age and social media use was investigated. The stated hypothesis was “age will be negatively correlated with social media

use”, and in turn was supported by the results of this study. Age was reported to have a moderate, negative relationship with social media use therefore indicating that the older an individual is, the less likely they are to use social media.

This finding is in line with that of previous research (Chou et al., 2009), which suggested that social media use decreases in older individuals. This could be a result of various difficulties arising for new computer users, and them doubting their ability to learn, therefore becoming frustrated at the beginning of the learning process (Gatto & Tak, 2008).

The moderate relationship between age and social media use may be explained by the effect of the increasing likelihood of an older adult to have access to and use SNS (Leist, 2013).

Maintaining social connectedness into older adulthood may become more difficult due to chronic diseases, mobility limitations and other age-related issues, meaning a decreased level of physical contact with acquaintances (Bell et al., 2013). Thus, a more active role may be played by social media in keeping older adults socially connected. It is therefore becoming more critical to understand the factors that influence social media use in this population.

Internet use has become a staple of everyday life, and brought with it the emergence of overuse, potentially leading to addiction (Ng & Wiemer-Hastings, 2005). This has garnered a lot of research in recent times. There has been debate on the appropriate classification of internet addiction. Some have likened internet addiction to addictive disorders such as drug use and alcohol disorders, while others have associated internet addicted to the impulse control disorders or to obsessive-compulsive disorder (Shaw & Black, 2008). Sleep deprivation or disturbance are the known health hazards that appear to be associated with internet addiction (Weinstein & Lejoyeux, 2010), while the disorder may also

lead to poor eating habits (Kim et al., 2010). Altered cognitive functioning, poor academic performance and the development of poor interpersonal skills are all possible negative consequences associated with internet addiction (Milani, Osualdella & Di Blasio, 2009; Tsitsika et al., 2011; Park et al., 2011). Future research should examine the potentially addictive aspects of social media use and the personality traits that are most at risk for developing internet addiction.

Efforts by students and faculty are leading to the emergence of online constructs that are creating new ways of learning and teaching. Research reveals that social media is being integrated by college students into their academic experience both formally and informally. Particularly noteworthy is the level of social media being used for coursework related collaboration. Additionally, social media is increasingly being used by college faculty to support learning and teaching activities (Dabbagh & Kitsantas, 2012). This suggests the current study may be useful to those involved in education. Future studies examining social media use in the academic sector may involve the inclusion of personality traits to determine what type of individuals would benefit most from social media's involvement in the learning process.

To further engage with their customers, businesses have embraced social media in recent years following the dramatic change in the media landscape. There has been a worldwide increase in total spending on social media advertising, according to recent business reports, with an increase amount of 56.2% (\$11.36 billion in 2013 to \$17.74 billion in 2014). This suggests that social media engagement drives sales (Kumar et al., 2016). Okazaki and Taylor (2013) further suggest it could be considered that social media is the most obligatory form of advertising, and that it warrants further research. Understanding the relationship between advertising on social media and the personality traits of its users could be advantageous for marketers and advertisers.

Social media can also be used by politicians to take their campaigns further through virtual means. While professional norms and news values are adhered to by the mass media, a direct linkage to the people for politicians is provided by social media, allowing them to circumvent any journalistic barriers. Therefore, this provides politicians with the freedom to spread their messages and articulate their ideology uncontested (Engesser, Ernst, Esser & Büchel, 2017). Politicians who are most active on SNS are more likely to be young (Larsson & Kalsnes, 2014), suggesting the future of politics may have an ever-growing presence on social media. Personality traits have also been found to be indicative of voting behaviours and partisan attitudes (Schoen and Schumann, 2007), suggesting politicians would benefit from understanding the type of individuals who their messages on SNS would most resonate with.

It is necessary to interpret the results of this study with caution, as it is not without its limitations. The reliability of the results of this study are put into question due to the small sample size ( $N = 81$ ). This leads to the low probability of a genuine true effect being discovered. Smaller sample sizes increase the probability of assuming a genuine true finding as false (Button et al., 2013). Due to this limitation, there could be a serious undermining of the relationship between the variables being examined. Research with greater sample sizes produce data that is more efficient and reputable. Consequently, the internal and external validity of this study are brought into question due to the limited sample.

A potentially major limitation associated with this study is the utilisation of a social media use questionnaire that is lacking in extensive external validity and reliability. Analyses for reliability refer to the reproducibility of values of a measurement on the same individuals in repeated trials. Better reliability implies better tracking of changes in measurement in practical or research settings, and better precision of single measurements (Hopkins, 2000). Reliability analyses in the present study and other studies (Xanidis & Brignell, 2016;

Kircaburun et al., 2018) all produced a high reliability score, however further utilisation and analyses of the questionnaire in future studies will be required before it can be considered a valid and reliable measure of social media use. The validity and generalisability of the produced findings from the current study are therefore undermined.

The use of a self-report questionnaire for generating the data for the current study brings with it several associated problems. Firstly, issues such as memory problems, attention problems, individual clinical problems and reading ability may have an influence on the ability of a respondent to recall their behaviours or their attitudes. Secondly, the external, social environment's characteristics may also give rise to validity problems. Some potentially influential factors would be desire of attention, social desirability, and a lack of privacy, anonymity or confidentiality (Demetriou, Ozer & Essau, 2014). More specifically, both lack of confidentiality and desire of attention can lead to response bias, while situational biases are impacted by social desirability (Brener, Billy & Grady, 2003). Finally, even if the person is trying to be accurate and honest, they may lack introspective ability (Demetriou et al., 2014).

Given the online nature of the questionnaire, it is unknown what setting participants may have completed the study in. This may have been done in the presence of other people and therefore possible distractions such as background noise and movement may have negatively impacted the generated data.

## **Conclusion**

The current research was formed to investigate and explore how personality dimensions influence levels of social media use, with the inclusion of five personality factors. Additionally, the effect of age on social media use was also examined. Extraversion, conscientiousness, neuroticism and age were all found to influence social media use, while openness to new experience and agreeableness were revealed to have no effect. This study



provides further insight into the psychological and demographic factors that determine how we use social media. With the prevalence of social media becoming ever more widespread in our lives, further assessment of the population should be continued with the replication and validation of the measures utilised in the present study.

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## **Appendices**

### **Appendix A**

#### **Demographic Information**

Please provide the relevant information below.

**Gender:** \_\_\_\_\_

**Age:** \_\_\_\_\_

## Appendix B

### The Big Five Personality Questionnaire

This is a personality test, it will help the researcher understand why you act the way that you do and how your personality is structured.

In the table below, for each statement 1-50, mark how much you agree with on the scale 1-5, where:

1= disagree

2= slightly disagree

3= neutral

4= slightly agree

5= agree

#### Begin each statement with "I..."

1. Am the life of the party.
2. Feel little concern for others
3. Am always prepared.
4. Get stressed out easily
5. Have a rich vocabulary.
6. Don't talk a lot.
7. Am interested in people.
8. Leave my belongings around.
9. Am relaxed most of the time.
10. Have difficulty understanding abstract ideas.
11. Feel comfortable around people.
12. Insult people.
13. Pay attention to details.
14. Worry about things.
15. Have a vivid imagination
16. Keep in the background.

17. Sympathize with others' feelings.
18. Make a mess of things.
19. Seldom feel blue.
20. Am not interested in abstract ideas.
21. Start conversations.
22. Am not interested in other people's problems.
23. Get chores done right away
24. Am easily disturbed.
25. Have excellent ideas.
26. Have little to say.
27. Have a soft heart.
28. Often forget to put things back in their proper place.
29. Get upset easily
30. Do not have a good imagination.
31. Talk to a lot of different people at parties.
32. Am not really interested in others.
33. Like order.
34. Change my mood a lot
35. Am quick to understand things
36. Don't like to draw attention to myself
37. Take time out for others.
38. Shirk my duties.
39. Have frequent mood swings.
40. Use difficult words.
41. Don't mind being the centre of attention

- 42. Feel others' emotions.
- 43. Follow a schedule.
- 44. Get irritated easily
- 45. Spend time reflecting on things
- 46. Am quiet around strangers.
- 47. Make people feel at ease.
- 48. Am exacting in my work.
- 49. Often feel blue.
- 50. Am full of ideas.

**Appendix C**

$$\text{Extraversion} = 20 + (1) \text{ ___} - (6) \text{ ___} + (11) \text{ ___} - (16) \text{ ___} + (21) \text{ ___} - (26) \text{ ___} + (31) \text{ ___} - (36) \text{ ___} + (41) \text{ ___} - (46) \text{ ___} = \text{ ___}$$

$$\text{Agreeableness} = 14 - (2) \text{ ___} + (7) \text{ ___} - (12) \text{ ___} + (17) \text{ ___} - (22) \text{ ___} + (27) \text{ ___} - (32) \text{ ___} + (37) \text{ ___} + (42) \text{ ___} + (47) \text{ ___} = \text{ ___}$$

$$\text{Conscientiousness} = 14 + (3) \text{ ___} - (8) \text{ ___} + (13) \text{ ___} - (18) \text{ ___} + (23) \text{ ___} - (28) \text{ ___} + (33) \text{ ___} - (38) \text{ ___} + (43) \text{ ___} + (48) \text{ ___} = \text{ ___}$$

$$\text{Neuroticism} = 38 - (4) \text{ ___} + (9) \text{ ___} - (14) \text{ ___} + (19) \text{ ___} - (24) \text{ ___} - (29) \text{ ___} - (34) \text{ ___} - (39) \text{ ___} - (44) \text{ ___} - (49) \text{ ___} = \text{ ___}$$

$$\text{Openness to New Experience} = 8 + (5) \text{ ___} - (10) \text{ ___} + (15) \text{ ___} - (20) \text{ ___} + (25) \text{ ___} - (30) \text{ ___} + (35) \text{ ___} + (40) \text{ ___} + (45) \text{ ___} + (50) \text{ ___} = \text{ ___}$$

**Appendix D**

This is a social media usage questionnaire, and will inform the researcher of how much you use social media.

In the table below, for each statement 1-9, provide your answer on the scale 0-4, where:

0= Never

1= Rarely

2= Sometimes

3= Often

4= Always

1. I struggle to stay in places, where I won't be able to access social network sites.
2. I feel angry, when I am not able to access my social network account.
3. My relatives and friends complain that I spend too much time using social network sites.
4. I lose track of time, when using social network sites.
5. I use social network sites, when I am in the company of friends.
6. I feel anxious, when I am not able to check my social network account.
7. I stay online longer than initially intended.
8. I spend a large proportion of my day using social network sites.
9. I feel guilty about the time that I spend on social network sites.



**Appendix E****Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.845	.848	9