Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage

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ABSTRACT

The unprecedented popularity of the social networking site Facebook raises a number of important questions regarding the impact it has on sociaity. However, as Facebook is a very recent social phenomenon, there is a distinct lack of psychological theory relating to its use. While research has begun to identify the types of people who use Facebook, this line of investigation has been limited to student populations. The current study aimed to investigate how personality influences usage or non-usage of Facebook. The sample consisted of 1324 self-selected Australian Internet users (1158 Facebook users and 166 Facebook non-users), between the ages of 18 and 44. Participants were required to complete an online questionnaire package comprising the Big Five Inventory (BFI), the Narcissistic Personality Inventory – 29-item version (NPI-29), the Revised Cheek and Buss Shyness Scale (RCBS), and the Social and Emotional Loneliness Scale for Adults – Short version (SELSA-S). Facebook users also completed a Facebook usage questionnaire. The results showed that Facebook users tend to be more extraverted and narcissistic, but less conscientious and socially lonely, than nonusers. Furthermore, frequency of Facebook use and preferences for specific features were also shown to vary as a result of certain characteristics, such as neuroticism, loneliness, shyness and narcissism. It is hoped that research in this area continues, and leads to the development of theory regarding the implications and gratifications of Facebook use.

1. Introduction

The popularity of the social networking site Facebook is unprecedented: It is currently the second most frequently visited website on the Internet (Alexa Internet Inc., 2011) and attracts a global audience of over 606 million people (Gonzalez, 2011). Enthusiasm for Facebook is particularly apparent in Australia, as close to half of the population are reported to be active users (Gonzalez, 2011). In light of figures such as these, it is not surprising that Facebook has been found to impact on the sociality of its users. For instance, a number of studies have found that Facebook use is associated with gains in social capital (Burke, Marlow, & Lento, 2010; Ellison, Steinfield, & Lampe, 2007; Steinfield, Ellison, & Lampe, 2008). Furthermore, a recent qualitative study suggests that Facebook may be changing the way individuals communicate and associate with one another (Richardson & Hessey, 2009).

Despite the potential implications of Facebook use, there is a distinct lack of empirically derived theory in this area. This may be because Facebook is a relatively recent social phenomenon, and as such, there has been limited opportunity for exploratory research. However, in the last two years, a growing number of researchers have recognised the importance of such research, and are working towards identifying the types of people who use Facebook (Hargittai, 2008; Raacke & Bonds-Raacke, 2008; Sheldon, 2009; Tufekci, 2008). In order to effectively achieve this goal, some researchers have focused on the relationship between Facebook use and various aspects of personality (Amichai-Hamburger, 2002; Buffardi & Campbell, 2008; Mehrizadeh, 2010; Orr et al., 2009; Ross et al., 2009; Sheldon, 2008). According to Amichai-Hamburger (2002), this kind of research is crucial as “personality is a highly relevant factor in determining behaviour on the Internet” (p. 6).

1.1. Personality and the Internet

In 1974, Rosengren (1974) argued that individual differences, such as age, gender, and personality, influence the use of mass media. This theory has been successfully applied in research relating to preferences for popular media, such as movies, music, and television shows (Weaver, 1991), as well as books and cultural activities (Kraaykamp & van Eijck, 2005). However, since the rise of the World Wide Web as a prominent form of mass media, the Internet has seemingly dominated this area of scientific enquiry (Amichai-Hamburger, Wainapel, & Fox, 2002; Amiel & Sargent, 2004; Birnie & Horvath, 2002; Engelberg & Sjöberg, 2004;
Hamburger & Ben-Artzi, 2000; Thayer & Ray, 2006; Tosun & Lajunen, 2010).

Rather than looking at the relationship between Internet use and specific traits, the majority of research in this area has been based on broad models of personality. The Five-Factor Model, otherwise known as the Big Five (Goldberg, 1990), is arguably the most commonly used model for this purpose (Ehrenberg, Juckes, White, & Walsh, 2008; Landers & Lounsbury, 2006; Swickert, Hittner, Harris, & Herring, 2002; Tuten & Bosnjak, 2001). The Big Five is based on the theory that an individual’s personality can be evaluated by determining how they rank on five bipolar factors: extraversion-agreeableness, conscientiousness, neuroticism, and openness to experience (McCrae & John, 1992). Within each of these five broad factors, a range of more specific personality traits are represented. For example, individuals high in openness to experience tend to be creative, original, and curious, while individuals low in this factor tend to be down to earth, conventional, and have a narrow range of interests (Costa & McCrae, 1992). The importance of each of the Big Five personality factors has been independently validated by a number of researchers, and empirical testing across various methods and cultures has shown this model to be widely replicable (for a detailed review see McCrae and John, 1992).

Several of the Big Five personality factors are believed to be associated with the way individuals interact with and maintain their social relationships. For example, extraversion is positively correlated with both the size of social networks, and the amount of social interaction that an individual engages in (Asendorpf and Wilpers, 1998). Due to its relevance to social behaviour, the Big Five factors have recently been employed to investigate the use of certain forms of online social media, such as social networking sites (Amichai-Hamburger & Vinitzky, 2010; Correa, Hinsley, & de Zúñiga, 2010; Ross et al., 2009) and blogs (Guadagno, Okdie, & Eno, 2008).

1.2. The Big Five and Facebook

Ross et al. (2009) and Amichai-Hamburger and Vinitzky (2010) looked specifically at the relationship between the Big Five factors and usage of Facebook. Their results showed that a number of these factors are associated with particular patterns of Facebook use. For example, extraverted individuals generally have more Facebook Friends (Amichai-Hamburger & Vinitzky, 2010), and belong to more Facebook Groups1 (Ross et al., 2009), than introverted individuals. Furthermore, individuals who are high in neuroticism are more likely than emotionally stable individuals to prefer using the Wall2 (Ross et al., 2009). As Ross et al. (2009) explain, a possible reason for the latter result is that the Wall offers people with neurotic tendencies the opportunity to take their time formulating messages and responses. As a consequence, the potential for unintentionally revealing personal information to others is reduced.

Despite the prediction that extraverted people would engage in more frequent use of Facebook, while conscientious people would engage in less, neither Ross et al. (2009) nor Amichai-Hamburger and Vinitzky (2010) found any significant relationships between the Big Five factors and intensity of Facebook use. In response to this, Ross et al. (2009) argued that, as a measure of personality, the Big Five might be too broad to reflect the nuances associated with Facebook usage. They suggested that future Facebook-related research should include a number of narrow personality traits, such as shyness and narcissism. Some researchers have begun to examine the relationships between these traits and Facebook use: Buffardi and Campbell (2008) and Mehdizadeh (2010) investigated Facebook use among narcissistic individuals, while Sheldon (2008) and Orr et al. (2009) focused on the association between Facebook use and shyness.

1.3. Shyness, narcissism, and Facebook

The results of the studies by Buffardi & Campbell (2008) and Mehdizadeh (2010) indicate that people with high levels of narcissism engage in frequent use of Facebook. According to those researchers, this trend is attributable to the fact that Facebook encourages users to engage in self-promoting and superficial behaviours, such as posting photos and writing status updates (Buffardi & Campbell, 2008; Mehdizadeh, 2010). As Buffardi and Campbell (2008) point out, the prevalence of narcissistic individuals on Facebook may lead to a rise in narcissistic behaviour among users in general, as such behaviour may begin to be viewed as acceptable. Therefore, this is an area worthy of further investigation.

In regards to shyness, the results of the study by Orr et al. (2009) demonstrated that shy people spend significantly more time using Facebook than non-shy people. Similarly, Sheldon (2008) found that people who are socially anxious like to use Facebook to combat loneliness. These outcomes may stem from the fact that shy and socially anxious people tend to feel more comfortable maintaining social relationships in online settings than they do in face-to-face interactions (Ebeling-Witte, Frank, & Lester, 2007). If this is the case, Facebook use may lead to beneficial outcomes for these particular people, such as increased social capital (Steinfeld et al., 2008). However, as neither Sheldon (2008) nor Orr et al. (2009) examined exactly how shy and socially anxious people were spending their time on Facebook, this conclusion may be erroneous. Shy people may instead be spending large amounts of their time engaging in non-social behaviour on Facebook, such as playing games. Again, this is an area that warrants further investigation.

1.4. Rationale for the current study

The research discussed so far suggests that the specific gratifications of Facebook users may differ as a function of their individual personality characteristics. Such findings represent an important first step for the foundation of Facebook-related theory. However, as the results of these studies have been based on data derived exclusively from university students, generalisability to the typical Facebook user is limited. It is therefore essential that these studies are replicated in wider populations, preferably in samples recruited from the Internet. Furthermore, in order to obtain a more accurate representation of the types of people that Facebook appeals to, it is recommended that researchers compare the personality characteristics of Facebook users with those of nonusers. In response to these issues, the current study was designed to investigate the relationship between personality and Facebook usage in a large population of Australian Internet users. In keeping with previous research, this study focused on the narrow traits of shyness and narcissism, as well as the Big Five personality factors. In addition, the emotional state of loneliness was included, as engaging in social behaviour on the Internet has previously been found to reduce levels of loneliness (Shaw & Gant, 2002).

1.5. Aims and hypotheses

The specific aims of the current study were twofold: to explore the possibility that people with certain characteristics were more likely to be Facebook users, and to ascertain whether these characteristics were related to differential usage of the site. It was hypothesised that individuals with higher scores on extraversion

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1 Facebook Groups are generally based around popular interests and activities. Users can join existing Groups or create their own.

2 Each Facebook user has a Wall that their friends can use to write messages or post links for the user to see. Communication on the Wall is asynchronous, and the posted information is generally viewable to other Facebook users.