Review

Why do people use Facebook?

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ABSTRACT

The social networking site, Facebook, has gained an enormous amount of popularity. In this article, we review the literature on the factors contributing to Facebook use. We propose a model suggesting that Facebook use is motivated by two primary needs: (1) the need to belong and (2) the need for self-presentation. Demographic and cultural factors contribute to the need to belong, whereas neuroticism, narcissism, shyness, self-esteem and self-worth contribute to the need for self-presentation. Areas for future research are discussed.

1. Introduction

The recent proliferation in use of social networking sites (SNSs) has resulted in new research examining the role that SNSs play in identity construction. SNSs are defined as internet-based services that give individuals three major capabilities: First, the ability to construct a public or semi-public profile; second, the ability to identify a list of other users with whom a connection is shared; third, the ability to view and track individual connections as well as those made by others (Boyd & Ellison, 2007). The most popular of the SNSs, Facebook (FB), now totals more than 500 million registered users (Facebook, 2011). Based on a recent comScore report (Lipsman, 2011), FB is the number one social networking site as of May 2011 with 157.2 million visitors per month, ahead of MySpace (34.9 million visitors per month), Linkedin (33.4 million visitors per month), and Twitter (27.0 million visitors per month).

Studies examining FB's impact on identity construction have evaluated specific personality characteristics associated with widespread FB use as well as FB's role in user self-presentation. However, to date, no literature review has been conducted that summarizes the existing findings of such studies.

In this article, we conduct a systematic review of the existing literature on the psychological factors contributing to FB use. We examine the technical features of the FB platform related to the user's ability to share social information. We also break down identity construction into the demographics and personality characteristics of registered users, the impact of FB use on narcissism and

self-esteem and the role of FB in acting as an avenue for self-presentation and self-disclosure. For this purpose, we conducted a comprehensive literature search using PubMed, PsychInfo and the Cochrane Library with the keyword, Facebook. A total of 279 records were identified from these sources. We removed 12 records, due to duplications, and 189 records, because they did not yield sufficient data. Of the 78 records left, only 42 records were evidence-based studies on factors contributing to Facebook use. All of these studies examined a population sampled from undergraduate and graduate schools. Table 1 provides a list of these studies and the variables examined for each one.

2. Technical features related to social data sharing

Like other SNSs, FB enables users to create visible profiles. At a minimum, profiles require a user's name, gender, date of birth, and e-mail address. Information posted beyond these basic fields is at the discretion of the user. Users can add basic facts about themselves, such as home town, add contact information, personal interests, job information and a descriptive photograph (Boyd & Hargittai, 2010; Facebook, 2011).

Features that facilitate interaction include the *friends* list, the *wall*, *pokes*, *status*, *events*, *photos*, *video*, *messages*, *chat*, *groups and like*. The *friends* list is a crucial component of FB, because it allows the end user to create a public display of links to their connections which viewers can in turn click through, to traverse the network. The *wall* is a term given to the FB feature that functions as a bulletin board and allows other users to post personal messages directed toward the end user. The *pokes* feature allows users to offer initial greetings to other users. *Status* allows users to inform their

Table 1
Sources for literature review.

Study author and year	Focus
Amichai-Hamburger and Vinitzky (2010)	Personality characteristics
Back et al. (2010)	Impression formation
Balachander and Wills (2008)	Privacy issues
Bonds-Raacke and Raacke (2010)	Social connectedness
Boyd and Hargittai (2010)	General uses of FB
Boyd and Ellison (2007)	General uses of FB
Buffardi and Campbell (2010)	Personality characteristics
Christofides et al. (2009)	Self-esteem
Ellison, Steinfeld, and Lampe (2007)	Social connectedness
Gonzales and Hancock (2010)	Self-esteem
Gosling et al. (2007)	Impression formation
Grasmuck et al. (2009)	Demographic characteristics
Hargittai (2008)	Demographic characteristics
Hargittai and Hsieh (2010a)	Demographic characteristics
Hargittai and Hsieh (2010b)	Demographic characteristics
Huang (2010)	Self-esteem
Karl et al. (2010)	Demographic characteristics
Kim and Lee (2011)	Self-esteem
Kirschner and Karpinski (2010)	Personality characteristics
Lou (2010)	Self-esteem
Mazer et al. (2007)	Teachers and impression formation
Mazer et al. (2009)	Teachers and impression formation
Mehdizadeh (2010)	Personality characteristics
Olson, Clough, and Penning (2009)	Teachers and impression formation
Ong et al. (2011)	Personality characteristics
Orr et al. (2009)	Personality characteristics
Peluchette and Karl (2010)	Impression formation
Raacke and Bonds-Raacke (2008)	Social connectedness
Ross et al. (2009)	Personality characteristics
Seder and Oishi (2009)	Demographic characteristics
Sheldon et al. (2011)	Social connectedness
Stefanone et al. (2011)	Self-esteem
Tong et al. (2008)	Impression formation
Utz (2010)	Impression formation
Vasalou et al. (2010)	Demographic characteristics
Walther et al. (2008)	Impression formation
Walther et al. (2009)	Impression formation
Wang et al. (2010)	Impression formation
Weisbuch et al. (2009)	Impression formation
Wilson et al. (2010)	Personality characteristics
Yu et al. (2010)	Self-esteem
Zhao et al. (2008)	Impression formation

friends of their whereabouts and actions. The *events* feature enables users to plan meetings or events that they can extend invitations for. *Photos* and *videos* allow users to upload albums, photos and videos which other users can comment on. Communication with friends is accomplished through *messages*, which are private or public, but also through a *chat* feature. The *groups* feature allows users to create and join interest groups. The *like* functionality allows users to give positive feedback about preferred content (Facebook, 2011).

3. Demographic characteristics of FB users

Early research on demographic characteristics has compared the ethno-racial identity of FB users to those of MySpace, a social networking site more popular prior to 2009. Hargittai (2008) noted that students of Hispanic origin make up a considerably larger segment of MySpace users (25%) as compared to FB (14%). This study, which was based on undergraduate students at the University of Illinois, also demonstrated findings within the group of FB users studied. Among FB users, Hargittai noted that use of FB varies according to a user's gender, race and ethnicity, and parental educational background and that more women than men used

FB. Furthermore, Hispanic students were significantly less likely to use FB than Caucasians (Hargittai, 2008; Hargittai & Hsieh, 2010a, 2010b).

Additional studies have examined the influence of demographics on identity construction among FB users. A study that compared the content of FB profiles of African Americans, Latino, Indian and Vietnamese ancestry students to in-person interviews of those users found that racial/ethnic groups use different strategies in identity construction on FB. African Americans, Latinos, and Indian ancestry students displayed greater intensity of cultural selves (marked by specific consumer and popular cultural preferences) than the White students and Vietnamese ancestry students (Grasmuck, Martin, & Zhao, 2009). Another study evaluating both the role of personality and culture on posting problematic content on FB (defined as content centered on substance abuse or sexual content) found that US students were more inclined than German students to post problematic information to their FB site (Karl, Peluchette, & Schlaegel, 2010).

Vasalou and colleagues (2010) examined difference in FB use across cultures, including the US, UK, Italy, Greece and France found there were cultural differences among users. Compared to FB users in the US, UK users rated groups as more important. Furthermore, Italian users rated both groups and games and applications as most important, whereas Greek users found status updates less important. When compared to US users, status updates and photographs were less important for French users, who also visited the site less frequently (Vasalou et al., 2010).

Studies have also investigated demographics of users by characterizing the ethnic/racial homogeneity of networks. In a study of the relationship between subjective well-being and the ethnic/racial homogeneity of FB friendship networks of first-year college students, researchers coded each participant's *FB friends* into European Americans or not. Participants then reported their life satisfaction. Among European American participants, having a more homogeneous friendship network was associated with higher life satisfaction. For non-European American participants, there was no relationship between the homogeneity of friendship networks and subjective well-being. The authors interpreted their findings as suggesting that students form supportive connections more easily with people who are perceived to be most similar to them (Seder & Oishi, 2009).

Taken together, these findings point to cultural and sociodemographic differences in FB use. Specifically, females and ethnic minorities appear to use FB more often than males and Caucasians.

4. Personality characteristics associated with FB use

4.1. Extraversion, introversion, and neuroticism

A considerable amount of research has examined the association between FB use and extraversion, introversion, and neuroticism. Ross and colleagues (2009) administered a questionnaire to participants at a university in Southwestern Ontario in Canada. The authors assessed basic use of FB, attitudes associated with FB and tendency to post personally-identifying information. Participants also completed the NEO-PI-R (Costa & McCrae, 1992a, 1992b) in order to assess personality along the Five-Factor Model domains. Results showed that users high on extraversion were more likely to utilize FB as a social tool but not as an alternative to social activities as compared to those scoring low on extraversion. In addition, those high on neuroticism reported that the *wall* was their favorite FB component, whereas those low on neuroticism preferred photos (Ross et al., 2009).

In a follow-up study with university students, Amichai-Hamburger and Vinitzsky (2010) sought to determine the relation-

ship between FB use and five personality factors using the NEO-PI-R by replacing the methodology of self-reports of subjects that Ross and colleagues (2009) had used with more objective criteria measurements of the user information upload on FB (Amichai-Hamburger & Vinitzky, 2010; Ross et al., 2009). In addition to the NEO-PI-R, the study included personal, education and work information. Results showed a significant correlation between personality and FB use. Specifically, extraversion was positively correlated with the number of FB friends, whereas introverts transferred their socially inhibited behavioral style from the offline into the online world. Moreover, people with low or high levels of neuroticism were inclined to share more basic information than people with moderate levels of neuroticism. Finally, users with greater openness to experience used more features from the personal information section than users with lower levels of openness to experience (Amichai-Hamburger & Vinitzky, 2010).

A study by Wilson, Fornasier, and White (2010) asked participants to report on their addictive use of FB and also to complete the NEO-PI-R as well as the Coopersmith Self-Esteem Inventory (Coopersmith, 1981). The findings indicated that extraverted individuals reported higher levels of both SNS use and addictive tendencies. These results suggest that the unlimited contact with friends on FB may appeal to extraverts' need for a high level of stimulation and a large social network. Similar results were found in a study examining the relationship between shyness and FB use in undergraduate students (Orr et al., 2009). Shy individuals had fewer friends on FB relative to nonshy individuals. At the same time, shy individuals spent more time on FB and had a more favorable attitude toward FB (Orr et al., 2009). Finally, a study by Kirschner and Karpinski (2010) asked undergraduate and graduate students about the intensity of their FB use, academic information (e.g., GPA, hours spent studying, extracurricular involvement), and their perceptions of the impact of FB on their own academic achievement. The results showed that FB users reported both a lower mean GPA and fewer hours per week studying than FB nonusers.

4.2. Narcissism, self-esteem, and self-worth

In a study that examined the role of narcissism in undergraduate FB users, Buffardi and Campbell (2010) correlated Narcissistic Personality Inventor-16 (NPI-16) scores of users to objective measures of their FB activity, such as the number of friends and posts on their *walls*. The results showed a positive association between narcissism and FB use, especially through FB *profiles* and *photos*, the features that allow excessive self-promotion (Buffardi & Campbell, 2010). Similar results were reported by Mehdizadeh (2010), who administered the NPI-16 and the Rosenberg Self-Esteem Scale scores to undergraduate FB users. The author further rated the content of the *about me* section, the photos, the first 20 pictures on the *view photos* of *me* section, the *notes* section, and the *status updates* section. The findings suggested that people with high level of narcissism and also people with low levels of self-esteem were more likely to spend more than an hour a day on FB. They were also more likely to post self-promotional photos enhanced by use of Photoshop (Mehdizadeh, 2010).

Similarly, Ong and colleagues (2011) examined the relationship between narcissism, extraversion, and adolescents' self-presentation in their FB profiles. Profile features included profile picture, status updates, social network size and photo count. Adolescents ranging in age from 12 to 18 were assessed. Results showed that after accounting for extraversion, narcissism predicted features presenting self-generated content (profile picture rating, status update frequency) (Ong et al., 2011).

Self-esteem has also been shown to be a factor in information disclosure on FB. A study by Christofides and colleagues (2009)

examined whether the need for popularity, self-esteem, trust, and general tendency to disclose are associated with online disclosure (Christofides et al., 2009). The study found that the tendency to disclose and the need for popularity were the only two significant predictors of information disclosure on FB. The authors concluded that FB creates an environment where information is shared proactively because of the site's influence on a user's need for popularity.

Finally, a study by Stefanone and colleagues (2011) investigated the contribution of self-worth to specific online activities, such as photo-sharing (Stefanone et al., 2011). Participants completed an online survey measuring such contingencies and typical behaviors on FB. The results indicated that contingencies or sources of self worth, such as appearance, approval of generalized others, and outdoing others explained online photo sharing. In particular, the appearance contingency for self-worth had the strongest relationship with the intensity of online photo sharing.

In sum, the review of the literature on FB use suggests that a high level of extraversion, low self-esteem, high levels of neuroticism, narcissism, and low levels of self-esteem and self-worth are associated with high FB use. Frequent FB use is also associated with lower academic performance but possibly higher self-esteem and sense of belonging.

5. The dual-factor model of FB use

Based on the existing literature, we propose a dual-factor model of FB use. According to this model, FB use is primarily motivated by two basic social needs: (1) *the need to belong*, and (2) *the need for self-presentation*. The *need to belong* refers to the intrinsic drive to affiliate with others and gain social acceptance, and the *need for self-presentation* to the continuous process of impression management. These two motivational factors can co-exist, but can also each be the single cause for FB use.

5.1. Need to belong

Humans are highly dependent on the social support of others (Baumeister & Leary, 1995), and ostracism from the social group impacts negatively on a variety of health-related variables, including one's self-esteem and sense of belonging, emotional well-being, sense of life meaning, purpose, self-efficacy, and self-worth (Baumeister & Leary, 1995; Baumeister & Tice, 1990; Stillman, Baumeister, Lambert et al., 2009; Zadro, Boland, & Richardson, 2006).

Self-worth and self-esteem are closely associated with the need to belong. It has been proposed that self-esteem may act as a *sociometer* – a monitor of one's acceptability to the group. A drop in self-esteem serves as a warning signal of potential social exclusion and motivates the individual to take steps to avoid rejection and improve one's standing in the social hierarchy (e.g., Leary, 2007; Leary, Tambor, Terdal, & Downs, 1995).

Consistent with this notion are the results from studies showing that social acceptability, as measured by others' liking or conversely by interpersonal conflict, was found to be a causal determinant of self-esteem and vice versa (e.g., Denissen, Penke, Schmitt, & Van Aken, 2008; Srivastava & Beer, 2005). Our review suggests that FB use is at least to some degree motivated by sociodemographic and cultural factors. Specifically, we found that females and ethnic minorities tend to use FB more often than males and Caucasians in some studies.

An important aspect that cultures differ on is individualism and collectivism (Hofstede, 1984; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Triandis, 1995). Collectivism describes the relationship between members of social organizations that emphasize

the interdependence of its members. In collectivistic cultures, harmony within the group is the highest priority and individual gain is considered to be less important than improvement of the broader social group. In contrast, in individualistic societies, individual achievements and success receive the greatest reward and social admiration. It has been shown that social contacts serve different purposes in individualistic versus collectivistic cultures (Lucas, Diener, & Grob, 2000). In individualistic cultures, individual feelings and thoughts more directly determine behavior, whereas in collectivistic cultures, harmony within the group is the highest priority. No study has examined the difference in FB use between individualistic and collectivistic cultures. We hypothesize that FB use serves a different function in these culture groups. Based on the literature we reviewed above, we hypothesize that members from individualistic cultures are more likely to share private information with their FB friends and are more likely to raise potentially controversial topics as compared to FB users from collectivistic cultures.

Self-esteem is closely related to culture groups and FB use. Self-esteem was more highly correlated with life satisfaction in individualistic than in collectivist cultures (Diener, Diener, & Diener, 1995). Furthermore, there are cultural differences in the association between congruence (i.e., acting consistently across situations and in accord with one's self) and life satisfaction. For example, in South Korea, congruence was much less important than in the US. Moreover, people in collectivist cultures more often rely on social norms to decide whether they should be satisfied and consider the social appraisals of family and friends in evaluating their lives (Suh, Diener, Oishi, & Triandis, 1998). People in collectivist cultures, as compared to individualistic societies, are more likely to remain in marriages and jobs that they consider unhappy, possible because they attempt to conform to social norms and perhaps because people in troubled marriages and jobs are more likely to get support from others (Diener, 2000). FB might serve as such a support system for individuals in collectivistic cultures. Therefore, it could be hypothesized that individuals in collectivistic cultures are more likely to have more frequent interactions and form a close circle of FB friends.

In the past, internet use has been associated with a detrimental effect on psychological measures of well being such as self-esteem and life satisfaction (Huang, 2010). Taking this into account, Gonzales and colleague (2010) designed a study to test the effects of exposure to FB on self-esteem relative to traditional self-awareness enhancing stimuli, such as a mirror or photo of oneself. Results indicated that exposure to information presented on one's FB profile enhances self-esteem, especially when a person edits information about the self, or selectively self-presents suggesting that digital self-presentation can alter self-assessment (Gonzales & Hancock, 2010).

Similarly, a study that sought to determine whether intensity of FB use could enhance self-esteem through offline friendship collected data from a sample of first-year college students from one university and one community college in the Southern United States. The study showed that, although the reason for FB use had little association with loneliness, FB use intensity reduced students' perceived level of loneliness. FB use intensity was further positively associated with offline friendship, but offline friendship did not have any association with psychosocial self-esteem (Lou, 2010). Therefore, this study suggested that FB's improvement of a user's social life did not improve the user's self-esteem.

In contrast, Yu and colleagues (2010) observed a positive association between FB use and improvement of self-esteem. This study collected survey responses from college students majoring in business at an undergraduate institution in China. The results showed that FB use was beneficial for students' socialization in universities and social learning outcomes. Improvement in

students' learning, have led them to a higher level of self-esteem, satisfaction with university life, and performance proficiency. The authors note that their results revealed the presence of two socialization processes that transformed users' engagement with FB into learning outcomes. First, FB use facilitated relationship development and acceptance from peers. Second, FB use allowed acculturation to the university. The former influenced cognitive and skill-based learning and the latter, satisfaction with life (Yu et al., 2010). The finding from this study suggests that the association between self-esteem and FB use is complex and possibly moderated by cultural and social factors. As described earlier, some studies show that FB use is associated with low self-esteem in general. However, FB use may enhance self esteem under some circumstances, such as in collectivistic cultures, as shown in the study by Yu et al. (2010). Future research is needed on the difference between cultures in the association between FB use and self-esteem.

The relationship between FB use and social connection is complex. There is evidence to suggest that general disconnection seems to motivate FB use, whereas being connected appears to reward it (Sheldon, Abad, & Hirsch, 2011). Sheldon and colleagues (2011) conducted a series of studies supporting a 2-process view of FB use based on self-determination theory (e.g., Deci & Ryan, 2000, 2008; Sheldon & Gunz, 2009). This theory states that humans are motivated by three basic psychological needs: the need to feel autonomous (volitional and self-expressive), competent (effective and masterful), and related (close and connected). In one of Sheldon and colleagues' (2011) studies, the authors found that the frequency of FB use was positively correlated with feelings of general connection in life and also with feelings of general disconnection in life. In another study, the authors showed that the correlation of disconnection with FB use was mediated by the tendency to cope with disconnection via FB. Furthermore, the correlation of connection with FB use was mediated by the tendency to have positive experiences within the FB context. Finally, the authors found that not using FB for 48 h caused a reduction in connection but not in disconnection during this period, and that becoming more disconnected (but not less connected) during this period caused increased use of Facebook during a subsequent free period.

There is also evidence to suggest that FB use improves self-esteem by increasing users' sense of belonging. For example, a study exploring the relationship between FB use and subjective well being in a group of students at a large Midwestern University in the United States examined whether the number of FB friends and selectively revealing a desirable image of self, or positive self-presentation on FB, influenced subjective well being (Kim & Lee, 2011). Results showed that both factors had a positive association with subjective well being number. The authors inferred from this that because FB enables visualization of social connections it also validates and enhances users' self-esteem.

5.2. Need for self-presentation

As an online entity, FB leaves itself open to the possibility that its users display their idealized, rather than accurate, selves through their profiles. This has been referred to as the *idealized-virtual identity hypothesis* (Back et al., 2010). In order to test this hypothesis, Back and colleagues measured the extent to which FB profiles reflected actual personality rather than self-idealization. Participants' ideal self-ratings, assessed through the Ten Item Personality Inventory (Rammstedt & John, 2007), were compared to observer ratings of participants' FB profiles. Observers were able to accurately infer the personality characteristics of the FB users in the study, suggesting that participants were expressing and communicating real personality rather than promoting idealized versions of themselves (Back et al., 2010). These results are in line

with a study by Gosling and colleagues (2007), which recruited undergraduate students at the University of Texas at Austin. Personality was assessed with the NEO-PI-R. Research assistants independently rated the personality traits based solely on targets' FB profiles. The study found that impressions made independently from FB profiles for all personalities were accurate, with the exception of emotional stability. For the latter, profile authors were found to have engaged in self-enhancement (Gosling et al., 2007).

In another study that surveyed the FB profiles of undergraduate students from a medium-sized Midwestern university, researchers investigated the intended image conveyed by users' profiles and whether the intended images related to whether users posted inappropriate information. As predicted, the intended image was related to whether students posted socially inappropriate information. Users who posted inappropriate information felt they portrayed an image that was sexually appealing, wild, or offensive. Users who did not post inappropriate information believed they portrayed a hardworking image. Thus, the intent of users in posting inappropriate content was to portray a particular image in order to impress their peers (Peluchette & Karl, 2010).

It has further been shown that the FB selves appeared to be socially desirable identities that individuals aspire to have offline but have not yet been able to embody for one reason or another (Zhao, Grasmuck, & Martin, 2008). Based on the content analysis of FB profiles, Zhao and colleagues (2008) found that the identities produced in the FB environment differ from those constructed in the anonymous online environments.

Interestingly, however, the amount of self-disclosure on the FB website did not appear to affect how participants perceived the appropriateness of the teacher's use of FB, and the majority of participants viewed the teachers' use of FB positively (Mazer, Murphy, & Simonds, 2007). Specifically, the authors examined the effects of teacher self-disclosure via FB on anticipated college student motivation, affective learning, and classroom climate. Participants were undergraduate students who were asked to browse the FB website of a teacher and anticipate what it would be like to be in a classroom with that teacher. The results showed that when a teacher self-disclosed certain information, such as personal pictures, messages from friends and family, and opinions on certain topics, students perceived similarities between themselves and the instructor that had a positive influence of student participation and affective learning. A follow up study with similar methods showed that teacher self-disclosures also has a positive influence on students' view of teacher credibility (Mazer, Murphy, & Simonds, 2009).

In addition to evaluating the effect of FB on connection formation, studies have also explored its impact on impression formation in those connections. A study by Weisbuch and colleagues (2009) examined the correspondence between interpersonal impressions made online versus face-to-face. The authors found that people who were liked by interaction partners were also liked on the basis of their FB pages. The authors further observed that social expressivity was the trait that created positive impressions both online and face-to-face. Thus, impressions formed from personal webpages provided perceivers with valid information about the webpage authors' likability in the offline world (Weisbuch et al., 2009).

Walther and colleagues (2008) evaluated the cues on end users' FB pages that affect observers' impressions of that user. The authors set up an experiment using mock-up profiles resembling those on FB and asked undergraduate student FB users about their perceptions of physical attractiveness. Participants viewed stimuli containing a mock-up of a FB profile. These stimuli were designed to reflect differences in physically attractive or unattractive photos of wall posters. Results showed the importance of the physical attractiveness of an end user's friends' photos in creating favorable impressions. In other words, it behooves one to have good looking

friends in FB (Walther et al., 2008). Using a similar study design but adding stimuli that reflected variations in the profile owner's and friends' statements about his or her high versus low extraversion, some investigators have found that a target's own apparent assertions about their extraversion exerted a significant influence on observers' judgments (Utz, 2010; Walther, Van Der Heide, Hamel, & Shulman, 2009).

An important factor in relationships among FB users is their physical attractiveness. A study by Wang and colleagues (2010) study showed that the display of one's profile photo on FB had a significant effect on the willingness to initiate friendships with the profile owners (Wang et al., 2010). Physical attractiveness was most salient as a visual cue when choosing whom to befriend when other verbal or non-verbal cues were limited. In addition, both male and female subjects were more willing to initiate friendships with opposite-sex profile owners with attractive photos. Thus, physical attractiveness is one of the most elementary criteria people use when forming impressions about others both online and offline.

Tong and colleagues (2008) examined the relationship between the number of friends that a FB profile featured and observers' ratings of attractiveness and extraversion. A sample of undergraduate students at a large Midwestern university was asked to view a FB mockup stimulus and form an impression of the owner of the profile. Results suggested a curvilinear relationship between sociometric popularity and social attractiveness, such that profile owners with lower number of friends (about 102 friends) but also greater number of friends (about 300 friends) created impressions of lower levels of social attractiveness. Thus, overabundance of friend connections produced doubts about FB users' popularity and desirability (Tong et al., 2008).

Taken together, these studies suggest that FB profiles may reflect the users' public persona, which appears to be shaped and motivated by the need for self-presentation. This need appears to guide the users' specific behaviors, such as choice of profile photo and number of friend connections, which are in line with the user's desired impression formation.

6. Concluding comments

Our review examined FB as an example of a social networking site. Based on this review, we derived a 2-factor model of FB use. FB use is primarily determined by two basic social needs: (1) need to belong and (2) need for self-presentation. These needs can act independently and are influenced by a host of other factors, including the cultural background, sociodemographic variables, and personality traits, such as introversion, extraversion, shyness, narcissism, neuroticism, self-esteem, and self-worth.

Based on this model, we have identified a number of areas for future research. Specifically, we recommend that future research examine the difference in FB use between individualistic and collectivistic cultures to examine whether FB use serves a different function in different culture groups. Members of collectivistic societies show a greater need to belong, whereas people from individualistic cultures display a greater need for self-presentation. Therefore, we expect that members of individualistic cultures are more likely to share private information with their FB friends and will be more likely to raise potentially controversial topics as compared to FB users from collectivistic cultures. We further expect that members from collectivistic cultures are more likely to have more frequent interactions and form a close circle of FB friends as compared to those from individualistic cultures. Furthermore, because the *need to belong* and the *need for self-presentation* reflect general personality traits, we assume that similar behavioral patterns are evident in a person's behavior offline, which mir-

ror the behavior online. For example, we might assume that individuals who are frequent FB users with many FB friends have frequent social contact offline. FB users who show a clear mismatch between offline and online behaviors might attempt to compensate for any perceived or actual deficiencies in social contact and peer-relations. This is an interesting area for future research. We hope that our review will stimulate further research in this exciting new area of psychology.

7. Author note

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