Understanding Facebook use and the psychological affects of use across generations

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ABSTRACT

Background: Although the popularity of social networking sites (SNS), such as Facebook, continues to increase, little research has centered on users outside of undergraduate institutions. There is evidence to suggest age impacts overall SNS use, but little is known about how different age groups use Facebook, and whether use is associated with improved or diminished well-being.
Method: This study examined how individuals aged 18–70+ years used Facebook, and how their well-being was impacted by said use. An anonymous survey was completed by 529 individuals assessing the association between age, frequency of Facebook use in the past 30 days, trouble controlling use, body-image as it pertained to use, and site-related social fulfillment. A series of univariate ANOVAs and regressions were conducted to better understand differences in use and effects of use on trichotomized age groups.
Results: Results indicate that there are significant differences in both the ways in which older adults use Facebook and the effects Facebook has on this population compared to younger cohorts. Findings suggest that younger adults use Facebook more frequently and are significantly more emotionally impacted by the site than older adults. For example, younger adults spend more time per day on the site and experience more negative body image because of Facebook than do older adults. These preliminary findings highlight the need for more research into the effects of SNS on individuals of different age groups and individualized intervention methods for SNS-related problems.

1. Introduction

The popularity of social networking sites (SNS) has boomed in recent years, and seems to be holding steady. Facebook is arguably the most commonly known SNS in the world (Nielsen., 2010). It is widely used across a broad range of demographic groups, so long as they have a valid e-mail address any individual can create and maintain a Facebook presence (Cain, 2008). As of June 2014, there were 829 million active daily users of Facebook. Not only does the number of users continue to swell, but users are spending an increased amount of time on the site per day (Rainie, Smith, & Duggan, 2013). Moreover, as the site's capabilities have expanded beyond networking, individuals have begun to use Facebook for a variety of non-networking related reasons. An emerging line of research is developing to improve our understanding of the individual differences between SNS users, and affects experienced by users.

As the popularity of SNS continues to soar, more research is emerging on the effects these sites have on the wellbeing of users. Thus far, relationships have been found between Facebook use and personality traits, self-esteem, and depression (Andreassen, Torsheim, Brunborg, & Pallesen, 2012; Lou, Yan, Nickerson, & McMorris, 2012; Pelling & White, 2009). In 2014, Meier and Gray dove deeper into the effects of Facebook use by investigating Facebook photo usage and body image disturbance. They found elevated photo activity, not overall Facebook use, to be correlated with greater weight dissatisfaction (Meier & Gray, 2014). More recent research suggests that Facebook use impacts body image, as well as disordered eating (Fardouly & Vartanian, 2015). Additionally, Facebook has been found to host to a number of pro-eating disorder groups (Juarascio, Shoaib, & Timko, 2010).

Research on the relationship between social adjustment and SNS use has thus far been mixed. Past studies have shown that adolescents, particularly younger girls, use SNS to facilitate relationships and expand upon real-life interactions (Subrahmanyam, Reich, Waechter, & Espinoza, 2008; Valkenburg & Peter, 2007).

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Similar findings have arisen to describe the SNS-based behaviors of emerging adults of both genders, specifically in the realm of using online resources to maintain offline relationships (Mcmillan & Morrison, 2006; Ellison, 2007), as well as university-aged young adults (Ellison, Steinfield, & Lampe, 2007; Lampe, Ellison, & Steinfield, 2006). However, a study from 2011 found an increased number of Facebook friends of college freshmen was related to low academic and emotional adjustment (Kalpidou, Costin, & Morris, 2011). There is a plethora of existing and newly emerging studies regarding the relationship between Facebook and personal characteristics. However, little insight has been shed on how Facebook use differs across generations, as the majority of the literature utilizes collegiate populations.

Older generations did not grow up with chat rooms, virtual video games, or other technology-based social tools the way the millennial generation has. Because the millennial generation grew up in an environment in which they were constantly exposed to computers and other technologies, they tend to be technologically literate (Bennett, 2012) "digital natives". By contrast, technology literacy is much lower for older generations, or "digital immigrants" (Prensky, 2001). For example, older individuals report more cognitive and physical barriers to learning and using new technology and skeptical attitudes towards the value of technology in their lives (Smith, 2014). In general, adults spend less time using computers than younger cohorts (Selwyn, Gorard, Furlong, & Madden, 2003), and less time on SNS per day than adolescents (Christofides, Muise, & Desmarais, 2011). Although there is near universal adaptation to some forms of technology by digital immigrants, research suggests some areas of specialized technology are not as widely used. The reasons for this are not entirely clear; however, it is hypothesized that some forms of technology may be too difficult, specific, or irrelevant to older generations to merit adoption by this population (Dickinson, Arnott, & Prior, 2007).

The current study attempts to dissect how different age cohorts use Facebook technology, and to explore the affects Facebook has on users across generations. We hypothesize that older adults use Facebook differently and less often than younger users, and that they are more resilient to the negative effects of Facebook use.

2. Methods

2.1. Procedure

Respondents were recruited via convenience sampling e-mail blasts and social networking news feeds (i.e. Facebook and Twitter), and Amazon.com, Inc.'s online labor market, Mechanical Turk (MTurk), to complete a fifteen-minute survey containing a series of Facebook usage questions and other measures of psychological well-being and distress. MTurk is a communication platform through which workers can be contracted to perform tasks that require human intelligence (e.g. consumer surveys) in exchange for compensation. Over the last few years, MTurk has been used for social sciences research with results similar to other sampling methods when certain validity checks were included in the design (Mason & Suri, 2012). The survey itself was built using SurveyMonkey, and was filled out anonymously. No IP addresses were collected. The data was collected from May through August of 2013, and all study procedures were approved by the New York State Psychiatric Institute IRB.

2.2. Sample

A total of 664 individuals completed at least one question in the survey. The primary reasons for removing participants from analyses were unwillingness to provide consent (4), inconsistent responding and/or completing the survey in too short a time-span to yield reliable responses to questions (95). Lastly, thirty-six (36) responders were removed from analyses because they did not have an active Facebook account at the time the survey was completed. Consequently, this sample includes 529 responders (159 male, 300 female, 70 preferring not to differentiate). The majority of respondents (421) were not compensated; however the individuals in the MTurk sample were given $3.00 upon survey completion. No significant differences were found between participants from the two recruitment sources.

2.3. Measures

The survey assessed participants across several broad domains, including specific Facebook application (app) usage, trouble controlling use, and inter- and intrapersonal distress and well-being. Specifically, we examined Facebook usage by dissecting time spent on Facebook per day, the number of times during the day users accessed Facebook, and which Facebook apps (e.g. pictures, posts, events, chat, etc.) were used and how often. Distress and well-being measures included body image questions pertaining to Facebook, social life fulfillment resulting from use, and satisfaction with the SNS itself. Lastly, we assessed loss of control over Facebook use.

Time spent on Facebook per day. The amount of time on Facebook per day was assessed using a face valid, self-report item specific to the past 30 days. Item responses ranged from "0–15 minutes" to "4 hours or more". *Times users accessed Facebook per day.* Checking behavior was assessed using another face valid, self-report item containing options ranging from 1 through 14 times per day, with an additional option of "15 times or more". *Facebook App usage.* Application usage was captured by asking respondents how many times in the last 30 days they used each application. Choices for responses ranged from "Less than once a month" to "More than once daily".

Trouble Controlling Use. To assess trouble controlling Facebook use, five questions were asked regarding (1) unsuccessful attempts to reduce use, (2) interference of use with other activities, (3) the degree to which users spent more time on the site than intended, (4) the degree to which users neglected important things because of Facebook use, and (5) the amount of effort it took for users not to use the site. These questions were asked on a 4-point likert scale and were adapted from Charlton & Danforth's addiction scale (Charlton & Danforth, 2007). The alpha for the current sub-scale is .78. *Body Image and Facebook.* To assess body image in the context of Facebook use, we included three questions from a public survey administered by The Center for Eating Disorders at Sheppard Pratt in 2012 (Clemmer, 2012). The three questions, presented on a 5-point likert scale, included (1) seeing photos of myself on Facebook makes me feel self-conscious about my body, (2) I feel that I need to change parts of my body or lose weight when I compare my body to friends' bodies in photos, and (3) when I attend a social event, I am conscious that photos of me might get posted on Facebook. We assessed the inter-item reliability of these questions, which yielded an alpha of .77. *Facebook Satisfaction.* Satisfaction with Facebook was assessed through the following true or false questions: (1) Facebook makes me feel that I am improving my life, (2) I feel that despite some of the problems with Facebook, it is a good tool for meeting my needs, and (3) after I close my Facebook account, I feel satisfied with how I spend my time compared to doing something else. The alpha of this scale was .73. *Positive Social Fulfillment.* Positive social outcomes of Facebook use were evaluated though four yes-or-no questions as follows: Facebook makes me feel... (1) Informed socially, (2) connected to people I rarely see, (3) connected to people I often see, and (4) I feel I am improving friendships because of Facebook.