Retirees on Facebook: Can Online Social Networking Enhance Their Health and Wellness?

Abstract
An individual’s social network has a strong impact on his or her mental and physical health. This is of particular consequence for senior citizens who are at greater risk of social isolation after retirement, due to loss of spouse, mobility issues, and recent emphasis on aging in place, i.e., in smart homes. Can online social networking sites (SNSs) such as Facebook help alleviate social isolation of aging alone by enabling seniors to maintain high-quality social interactions? How can we make senior-friendly design improvements to SNSs? A preliminary national survey (N = 168) of adults over 55 revealed that for those who had joined an SNS, the primary motivation cited for signing up was persuasion by a friend or family member, while non-users cited a strong lack of interest rather than a lack of knowledge or skill, with implications for theory and design of SNS technology for senior citizens.

Keywords
Social networking sites, well-being, retirees

ACM Classification Keywords
General Terms
Human Factors

Introduction
Social networking sites (SNSs) have become a staple in daily communication, with 46% of all US adults on the Internet having used one of these sites [1] and 72% of young adults using them regularly [2]. Facebook, the most popular SNS, currently has over 500 million active users worldwide [3]. While teenagers and young adults drove the popularity of SNSs, older adults are joining in large numbers [4]. In 2008, 17% of US internet users over the age of 55 had an online profile [5] and these adults, particularly women, are reportedly the fastest growing demographic on Facebook [6]. As of January 2010, over 9.7 million adults 55 and older were on the website, and the number continues to rise [7]. Our research seeks to determine how Facebook use by adults over 55 could be beneficial to their quality of life, given a few contributing factors: strong effects of social networks on health, the rapidly growing population of older adults, and new initiatives for aging in place.

Social Networks and Health
The nature of an individual’s social network has a strong impact on his or her quality of life. Specifically, those who have a greater number of different types of relationships live longer [8], and mortality rates are significantly higher among those who have weaker social connections [9]. Stronger social ties tend also to alleviate depression [10,11], increase life satisfaction [12], and stimulate interest in daily activities [13]. Those who are more socially disconnected, and even those who perceive themselves to be socially isolated, score lower on measures of physical health [14]. Greater social connectedness has even been found to lead to lower blood pressure [15] and decreased risk of cardiovascular disease [16].

Sigman [16] suggests that the negative impacts of social isolation are strongest for senior citizens who have retired from work and therefore abrupty lost much of their daily social interaction, citing evidence to indicate that retirement from work may be a risk factor for increased mortality. Furthermore, if an older adult has lost a spouse, the effects of being a widow or widower can have negative impacts on mental and physical health [17]. For the elderly specifically, low availability of social support has repeatedly been found to lead to higher mortality rates [18,19,20]. Given these circumstances, maintaining strong social networks may be particularly important for the health of the growing population of senior citizens.

Older Adult Population
Adults of the baby boomer generation have begun to reach the age of retirement, which is likely to result in a historic growth of the older population. Adults over 65 currently make up 12.6% of the U.S. population, and are expected to constitute 20% of the population by 2025 [21]. In part because of resource concerns, several initiatives have been launched to help these adults “age in place” (i.e., in their own homes) rather than in retirement communities and elderly care facilities. The ultimate goal of such initiatives for building technologically-advanced residential units, called “smart homes,” is to improve the individual’s quality of life, yet one downside to aging at home is the potential for social isolation. However, as social media technology reaches ubiquity, virtual spaces could prove to be a vital element to smart homes, enabling seniors to maintain quality social interaction.
SNS Use and Well-Being

In recent years, research has found SNS use to have varied positive effects on psychological well-being [22,23]. Among college students, Facebook intensity (the extent to which Facebook is a part of their lives) is positively associated with social capital [22]. This effect is even stronger for those with lower self-esteem, indicating that online social networking has the potential to compensate for offline deficits in psychological well-being [23]. Studies link Facebook use with greater life satisfaction [24], and specifically that greater self-disclosure on an SNS is associated with greater well-being and higher life satisfaction [25].

These studies support the notion that SNS use can have a beneficial role in one’s well-being and life satisfaction. However, it is also important to account for how individuals are using the site, as particular activities may have a more positive impact on one’s wellness offline than others. Thus far, the research has focused on college students and adolescents who are qualitatively different from retirees in terms of lifestyle, experience, and possible need for SNSs. With this in mind, our research investigates how Facebook use is related to the quality of life and related indicators of physical and mental health among senior citizens.

Methods

A nationwide mail survey of 168 adults ages 55 and older was conducted in late 2009 to answer these questions. Participants were recruited from a random national sample of 1200 adults in the US and offered a $5 Amazon gift card for participation. One reminder postcard was sent out about one month later. The average age of participants was 69 (SD = 9.5), with a range of 52 to 101 years, and the sample was 67% male. Two samples of 600 were purchased from Survey Sampling International.

Quality of Life (QoL) was measured with 33 items, adapted from the Life Satisfaction Index (LSI) [26]. Three items were left open-ended (e.g., “What are some of the best things about being the age you are right now?”) and 30 items were converted to five-point Likert-type items, such as “My life could be happier than it is now.” The measure showed high reliability (Cronbach’s α = .89). Additionally, physical health was measured with nine items adapted from the World Health Organization [27] regarding their level of physical ailments and difficulty with various daily activities, which, when combined, was also reliable (Cronbach’s α = .82).

Participants were asked if they had ever joined an SNS, and specifically if they had ever joined Facebook. Facebook users were asked how often they use the site, how many friends they have, and how satisfied they are with their time on the site. Additionally they rated how frequently they partake in any of 19 various Facebook activities (listed in Table 1) and completed the Facebook Intensity Scale [22] scale (Cronbach’s α = .88). Non-users of Facebook were directed to two open-ended questions.

Results

Of the 168 individuals who completed the questionnaire, 38 (22.62%) stated that they had ever joined an SNS, and 34 stated that they use Facebook. These Facebook users had a range of two to 280 friends, with a median of 15 friends (SD = 61.90). Only 21% of Facebook users logged in daily, 21% logged in weekly, while 36% logged in only a few times a month,
and 21% logged in only a few times per year. When they logged in, Facebook users spent an average of 14 minutes (SD = 15.33) on the site.

The most common activity on Facebook was “Stay in touch with my friends/family” (M = 3.27, SD = 1.43), whereas “Flirt with someone” (M = 1.10, SD = .50) was the least popular. See Table 1.

Quality of Life (QoL) was analyzed as a possible outcome of various predictors: whether individuals use Facebook (yes/no), how often they use Facebook (1=Never – 5=Daily), and Facebook Intensity (5-point scale). Independent-sample t-tests revealed no significant relationship between Facebook Use and QoL, t(74) = .18, n.s.; no significant relationship between frequency of Facebook use and QoL, r = -.09, n.s.; and no significant relationship between Facebook Intensity and QoL, r = -.01, n.s.

The 19 Facebook activities were also tested as possible predictors of QoL, revealing significant negative relationships between using Facebook to ”Reunite with old friends” and QoL, r = -.47, p = .002; and using Facebook to ”Pass the time” and QoL, r = -.39, p = .01. Finally, number of Facebook friends and time spent on the site were tested as possible predictors of QoL but these relationships were not significant either.

**Assessment of Non-Users**

Two open-ended questions probed non-SNS users about their decision not to sign up for such a site, and what could motivate them to sign up. All open-ended responses were coded and categorized, revealing four primary reasons for not joining an SNS: lack of interest, lack of access, lack of skill, and privacy concerns. The majority of respondents (64.4%) stated that they were simply not interested or had no need to join, nine percent cited issues of access to the Internet, seven percent mentioned lack of skill or knowledge about the technology, and just nine percent were concerned with privacy issues.

When non-users were asked what might convince them to join a social network, over half of the respondents (57.1%) stated that “nothing” could convince them to join and 11% said that they “don’t know” what might convince them. While some (4.4%) stated that better knowledge about the technology was a prerequisite for joining, a larger number (13.2%) cited friend or family influence, e.g., ”To have a friend or family member communicate that way.” The remaining 15.4% gave varied other reasons such as money, self-promotion, requirement for class, and being housebound, among others. Not surprisingly, those who use Facebook are significantly younger (even within this demographic), and spend significantly more time online in general than those who do not use Facebook.

**Discussion**

While it is premature to draw any conclusions about the relationship between SNS use and quality of life, this research offers potential avenues for exploring the role played by SNS in the lives of older adults, and may lead future research on the motivations that drive their decision to adopt or ignore this communication technology. Despite reports of the rapid growth of older adults on Facebook, we could not find evidence to suggest that it has become a large part of most retirees’ lives. However, this lack of connection does not appear to be due primarily to access or skill limitations. Our open-ended responses from non-users

<table>
<thead>
<tr>
<th>Facebook Activity</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay in touch with friends/family</td>
<td>3.27</td>
<td>1.43</td>
</tr>
<tr>
<td>Reunite with old friends</td>
<td>2.56</td>
<td>1.14</td>
</tr>
<tr>
<td>Keep up with others’ activities</td>
<td>2.39</td>
<td>1.14</td>
</tr>
<tr>
<td>Comment on others’ postings</td>
<td>2.38</td>
<td>1.17</td>
</tr>
<tr>
<td>View or upload photographs</td>
<td>2.33</td>
<td>1.29</td>
</tr>
<tr>
<td>Pass the time</td>
<td>2.15</td>
<td>1.77</td>
</tr>
<tr>
<td>Keep up with current events</td>
<td>1.95</td>
<td>1.20</td>
</tr>
<tr>
<td>Update my status</td>
<td>1.88</td>
<td>1.00</td>
</tr>
<tr>
<td>Browse profiles</td>
<td>1.80</td>
<td>1.08</td>
</tr>
<tr>
<td>Post items (e.g., news articles)</td>
<td>1.78</td>
<td>.91</td>
</tr>
<tr>
<td>Make new friends</td>
<td>1.70</td>
<td>.81</td>
</tr>
<tr>
<td>Play games</td>
<td>1.61</td>
<td>1.12</td>
</tr>
<tr>
<td>Get opinions from others on the site</td>
<td>1.53</td>
<td>.82</td>
</tr>
<tr>
<td>Make plans with friends/family</td>
<td>1.49</td>
<td>.76</td>
</tr>
<tr>
<td>Take quizzes</td>
<td>1.45</td>
<td>.88</td>
</tr>
<tr>
<td>Organize with other people for an event, issue, or cause</td>
<td>1.39</td>
<td>.80</td>
</tr>
<tr>
<td>Make new business or professional contacts</td>
<td>1.29</td>
<td>.64</td>
</tr>
<tr>
<td>Promote yourself or your work</td>
<td>1.17</td>
<td>.59</td>
</tr>
<tr>
<td>Flirt with someone</td>
<td>1.10</td>
<td>.50</td>
</tr>
</tbody>
</table>

**Table 1.** Participation in various Facebook activities
indicate a clear aversion to SNS, likely due to a lack of belief in their potential usefulness. However, in cases where participants stated how they could be convinced to use the site, they mostly cited family influence, such as persuasion by a son or daughter, or the realization that it can be a useful way to stay in touch with grandchildren. This presents an implication for the design and promotion of sites such as Facebook to seniors: efforts to grow their senior demographic must highlight the family aspect of the site.

Quality of Life (QoL) was not linked to Facebook use, frequency of use, or intensity, likely due to the relatively small number of friends and the relatively small amount of time spent on Facebook. Findings were certainly also limited by the sample obtained, which yielded only 34 Facebook users. Moreover, the participants in this sample had a relatively high QoL ($M = 3.55, SD = .47$), leaving little room for Facebook to make a difference. Ongoing research on this topic employs an alternate strategy, of locating and interviewing seniors who are already on Facebook, about how they actually use the site and what benefits they derive from their usage. Upon building a greater understanding of their motivations and gratifications obtained from the site, the relationship between these online activities and their quality of life can be better assessed from the viewpoint of designing. The long-term objective of our research is to explore the specific ways in which social networking technology can help maintain smart health and wellness among aging adults. A theoretical understanding of the connections between aspects of communicating via SNS and health indicators will advance human-centered computing by motivating design of interfaces that offer wellness-promoting interaction opportunities for seniors.

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**References**


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