



# Facebook and the Elderly: The Benefits of Social Media Adoption for Aged Care Facility Residents

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**Abstract.** We explore the emotional effects of implementing Facebook in an aged care facility and evaluate whether computers and Facebook are of any benefit in regard to an elderly person's feeling of social connectedness. This preliminary qualitative study took place in a Melbourne-based elected Aged Care Facility. Facebook was accessed through desktop computers provided by the Facility.

During a four month pilot project, six residents were supervised to learn how to competently Facebook. Findings indicate that older people are able to connect and learn the use of new technologies with which they may be unfamiliar. While high levels of user enjoyment were found, measures of social connectedness resulting from the use of Facebook use were inconclusive. The research concludes that when supported with appropriate teaching and technology, the use of computers to access Facebook is a practical approach in supporting the connectedness needs of the residents.

**Keywords:** Social media · Elderly · Connectedness · Isolation

## 1 Introduction

The Western World's aging population is growing rapidly, thus leading to considerable stresses on the health care systems [1–3]. Globally the trend of decreasing mortality rates and the decrease in fertility rates since the 1950's has led to an aging population. This is referred to as a demographic transition [4: p. 5].

In Australia, it is predicted that the next 50 years will see drastic changes in the age structure of the population. These changes are reflected in the growth of the median age

from 37.7 years in 2012, to between 38.6 and 40.5 years of age in 2031. The age group of 65 years and over is projected to rise from 3.2 million in 2012, to between 5.7 and 5.8 million in 2031 [5].

### 1.1 Aging and Socialisation

Getting older can be a difficult time for many individuals with the onset of physical and mental ailments and the prospect of relocating to an aged care facility when one cannot be adequately cared for at home. This adjustment can be a daunting task and many individuals worry about what will happen at this stage of their lives. Previous research points out that once a person moves to a care type facility, there is a reduction in their quality of life along with the reduction in their independence and difficulties with socialisation [6, 7]. Subsequently, social isolation and loneliness are common. Vast social problems are found in nursing home settings and seem to contribute to deteriorating physical and mental health of residents [8–11].

Loneliness is experienced by 45% of Australians aged 65 years and over [12]. The prevailing social environment is an important factor which correlates social behaviour and physical health [13]. Ongoing socialisation has been observed to maintain patients' mental state, and often prevents the onset of such complaints and ailments as loneliness, and depression. The lack of social interaction leads to increased rates of morbidity and mortality [8–10, 13–15].

Research on social isolation has shown that ongoing socialisation is a vital part of slowing the aging process and has many benefits for the individual. Characteristics of intervention methods that appear to be effective at targeting social isolation include offering social activities to older people, offering support within a group format, and offering activities where people are required to actively participate [3]. Many studies demonstrate that few intervention methods for social isolations have been successful and many have failed to have long lasting effects [3, 13].

### 1.2 Aging, Information Technology and Social Media

Although it is thought to be common knowledge that older people, generally above the age of 65 have a lack of understanding of modern technology including the internet, it should not be assumed that older people do not want to learn the use of new technology [6]. Data found on the internet use of persons aged 65 years or older demonstrates that in 2012–2013, 46% of Australian older persons were internet users [16].

Many preceding studies demonstrate the prospect of Information and Communications Technology (ICT) adoption in nursing home settings. These studies demonstrate the benefits associated with ICT use and improvements in mental health and care provided. Some of the pitfalls in these research studies were that at the time of the research the technology was not advanced enough to facilitate long distance video calls or to perform multiple tasks. This led to frustrated users because of reoccurring complications whilst using the technology. Hence there has been a delay in implementing this technology in aged care settings. [9, 10]. Today we are able to avoid most of these hurdles as internet, smart technologies, and applications have advanced to accommodate user requirements.

An Australian national survey of 800 senior participants aged 55 and over reported that access to the internet made them feel more connected and helped them overcome feelings of social isolation and loneliness. The seniors used the internet to connect with their children and grandchildren as well as other family members. The findings demonstrated the ability to adapt and adopt the use of the technology, as well as reporting that one third of seniors used video calling applications such as FaceTime or Skype to stay in touch with family and friends and that more than half used Facebook and email [12].

According to Technology Review, in the future technology will play a major role in reducing social isolation and loneliness in aged care services accommodation. This trend will be significantly higher in families that are separated by long distances or who live in remote areas [12]. Egan's research confirms future possibilities in fostering communication in nursing home settings through ICT. Our research has taken the next step and trialled Facebook in an aged care facility, with a positive outcome, reinforcing the ideal of this technology assisting the elderly in the pursuit of finding a solution for social isolation. It also highlights a new user group, and the customisation required to meet the needs of this group.

But can those we define as elderly, benefit from the use of social media and information technology? Bell et al. [17] claim that social media has been widely adopted by younger adults, but older adults have been less likely to use such applications.

They conducted a survey of 142 older adults (*Mean* = 72 years, *SD* = 11; range: 52–92) living in the metropolitan Atlanta area to understand the characteristics of older adults who do and do not use Facebook. They examined the relationship between Facebook use and loneliness, social satisfaction, and confidence with technology. Fifty-nine participants (42%) identified themselves as current Facebook users; 83 participants (58%) were not Facebook users. Non-Facebook users were significantly older (*Mean* = 75.3 years) than Facebook users (*Mean* = 66.5 years). Counter to expectations, there was not a significant difference in loneliness between Facebook users and non-users for this sample. However, Facebook users did score higher on assessments of social satisfaction and confidence with technology than did non-users.

Their preliminary results suggest that many older adults do use Facebook and they primarily use it to stay connected with family. They claim that social media may begin to play a more active role in keeping an ageing population socially connected. Therefore, understanding the factors that influence social media use in older adults is becoming more critical.

Hope et al. [18] present results from an interview study involving 22 older adults (age 71–92) to understand communication preferences and values related to social media. They studied older adults who are interested in improving communication with their family and friends. But they noted that these seniors rarely use social media to connect with members of their social networks. As a whole, older adults value deeper, well thought out, carefully crafted social communications that are achieved through telephone calls, e-mails, and written letters. Issues of privacy, information credibility, and content relevance are key reasons for not using social media.

They claim that participation on social media sites requires a time commitment and there are expectations of reciprocity. Encouraging seniors to connect with weak ties

may deter use. They argue that while older adults perform many social functions that could be supported by online technologies, few seniors use such systems.

Hutto and Bell [19] claim that whilst the percentage of older adults using social media has dramatically increased in recent years, comparatively little research has been done to understand this unique community of users. They explore several characteristics of active Facebook users among older adult and build on previous research to investigate the differential impact of traditional versus social media-mediated communication activities among older adults, and assess its relationship with social satisfaction.

They then examine the specific relationship between older adults' Facebook communication habits and their attitudes regarding social satisfaction, loneliness and social isolation. Controlling for factors such as age, gender, ethnicity, socioeconomic status (education and income), and marital status, they find that directed communications (as opposed to broadcast communications and passive consumption of content) is significantly correlated with feelings of social satisfaction among this distinct population.

They also found a significant relationship between age and network size - older seniors had distinctly smaller social networks than younger seniors. A strong correlation between smaller networks and increasing age has implications for the study of social networks in general. For example, as the locus of social networks begins to shift away from colleagues and other workplace acquaintances more towards family and close friends, one might postulate that older adults may begin to develop stronger ties to members of their shrinking network. If the strength of ties between older adults and their network members is significantly stronger than the ties between younger adults in otherwise comparable networks, then this has meaning for a broad range of research interests that are based on social network simulation models or general studies of the diffusion of innovations. When Hutto and Bell examined the strength of the relationship between age and the size of social networks among older adults, what they were not able to answer here is whether older adults with fewer connections actually have stronger connections among their network ties.

Among older adult social media users, they found no differential effects of social media-based communications versus traditional communication channels with regards to social satisfaction. Seniors appear to use social media communication to supplement traditional forms of communication without impacting their social satisfaction. However, when contrasted against other Social Network Sites specific communication activities, older adults with more directed communications per year had significantly higher satisfaction with their own role and activities within their social networks. Direct interactions are comparatively more effortful than broadcast communications or passive consumption, but these interactions are a simple and convenient way to remain engaged in at least some part of another's daily life. Even the lightest of lightweight interactions can signal that the person feels that a relationship is meaningful – an important part of building and maintaining strong social connectedness for seniors.

Previous research has investigated the use of information technology and social media by the elderly, and how social media can help enhance connectedness. But very little work has been performed on the combination of these two topics. We address this issue in this paper.

Given the age of our participants, it would not have been appropriate to conduct quantitative research requiring the completion of surveys. Instead, we decided upon conducting a small qualitative study.

Observing the issues related to a lack of socialisation became the main identifier for the problem. This research studies the impact of introducing Facebook to support social interaction. It focuses on the five features of; Participation, Openness, Conversation, Community, and Connectedness [20]. This led to several factors motivating the research including, the need to understand whether technology can assist older people, why older people do not use smart technology, and the desire to gain an in-depth understanding of how the target group uses social media.

This preliminary research addresses the following goals:

1. *To discuss complications and difficulties that arise in relation to the use of computers and Facebook by our target population, and*
2. *To measure how Facebook helped connect the elderly with family and friends and in turn assisted with their perceived feelings of loneliness and social isolation.*

## 2 Methods

The study was carried out at a Melbourne Jewish Aged Care Facility<sup>1</sup> that caters for individuals with both high and low care needs. The majority of the elderly people who reside at this aged care facility speak Russian as their native tongue and have a limited use of the English language. Ideally, we would have chosen native English speaking residents for our trial. But very few native English speakers live at the St Kilda Road residence of the nursing home – the site of our experiment.

Participants for this study were selected based on their willingness to participate, having no or limited mental and visual impairment, the physical ability to use a computer, reasonable proficiency in English and having family with whom they could communicate via social media.

Initially, the facility manager selected 11 capable residents for the study. It was then up to the research team to recruit the participants. The reason that only a small portion of residents were asked to participate was due to time and resource limitations. Initially all 11 people recommended by the facility manager were asked to participate in the research; 6 of whom agreed and were interviewed for the first set of interviews and only 3 of whom remained until the completion of the research project. Reasons for-non completion include one participant passing away, unavailability to be interviewed for the second interview, and finally one participant felt they were not able to participate in the trial of the technology due to fear of lack of knowledge and limited English language. Out of the 11 prospective participants, reasons given for declining involvement in the project were due to some residents being immigrants to Australia from a non-English speaking background and hence not feeling proficient in English.

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<sup>1</sup> See <http://www.jewishcare.org.au/residential-aged-care/> last accessed November 19, 2016.

Whilst all the relevant documents were translated into Russian<sup>2</sup>, many native Russian speakers were reluctant to be involved. Hence there were only a small number of participants in the project. This also raises the issue of culture (as opposed to mere translation) as an important factor in the use of Social Media. The willing participants ranged in age from 69 to 88, and all of them resided at the aged care facility alone, having no close relative or spouse live with them at the facility. Two sets of open ended interviews were used to gather the data, one before the implementation of Facebook and the second after the implementation of Facebook. Facebook was chosen as the preferred form of social media due to its popularity.

To begin, the research participants were interviewed individually in an hour long consultation. The interviews consisted of 20 open ended interview questions. The questions focused on determining how the residents felt about the use of computers, as well as use, familiarity, and attitudes toward one form of social media. The interviews were aimed at building a framework to understand the capability and prospect of implementing technology and social media into the aged care facility. The participants were also asked if they felt lonely and isolated and whether they believed their social needs were met by either the hosted activities at the facility or via family member visitations.

The second set of interview questions, conducted six months later, after participants received support on computer usage, the internet and social media, focused on gaining information regarding whether the participants perceived a changed level of socialisation after the implementation of social media, whether they enjoyed the experience and whether they found it useful. All of the participants opened up about their personal lives and candidly explained their experiences to the researcher. It should be noted that the questions were not based on a psychological evaluation of the resident, nor were they aimed to scientifically identify a resident's mental health.

## 2.1 Intervention

After the first sets of interviews were conducted and the level of socialisation and loneliness of the interviewee as well as his/her know-how of technology established, each participant was individually introduced to computers and given lessons developing their computer literacy to a sufficient level to enable them to gainfully use Facebook. The level of training depended on each person's individual needs. The computer lessons were provided by the researcher alone.

A total of 3 lessons each were given to each participant. The lessons varied in length from 1 to 2 h. The participants did not want to participate in a group meeting, fearing their lack of skills and knowledge would be critiqued by others at the residence. Some residents were familiar with the use of computers where-as others had never used a computer before. That is why each lesson was tailored to suit the needs of the resident. The lessons ranged from teaching residents how to open a computer, teaching them the use of the mouse and keyboard, teaching how to click and double click, to

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<sup>2</sup> By official translators who were paid by Jewish Care Victoria.

providing support for participants with a more advanced knowledge of computers. This latter group knew how to type using a keyboard, how to open and close a computer and how to gain access to the internet. The lessons were provided for each resident to aid them first in creating an email address and second to assist them with the creation of a Facebook account.

Once the lessons were completed the researcher left the facility for a time period of four months. The participants were expected to use the computers and Facebook during this time, period without the assistance of the researcher. No other assistance was available for the participants in the study due to lack of resources. The researcher returned to the facility to ask the final set of interview questions. The data from the first and second set of interviews were compared and analysed using an explanation building method to identify what difference the technology had made and how it affected the resident's lives. These personal encounters were recorded and the results generated from the participants responses.

### **3 Results**

#### **3.1 Results of the First Set of Interviews**

The first set of interviews revealed that all of the participants had heard of social media and 5 out of 6 were able to describe what it was. Only 2 participants out of the 6 had used social media previously and 5 out of 6 participants had used a computer or a smart phone or a tablet previously. All participants were excited, and or positive about the potential to learn to use computers and one form of social media. The first sets of interviews were indicative that all of the participants missed their families and felt lonely or isolated at times. About 80–90% of the residents at this aged care facility spoke a language other than English as their native tongue.

The participants who completed this particular study spoke English as their native tongue, thus the participant group expressed that they felt isolated from the rest of the residents, who were not native English speakers. Many of the activities hosted at the facility were tailored for non-English speakers. All of the participants felt that they could not talk to or engage with other residents at the aged care facility due to language and cultural barriers. Some other communication barriers included cognitive difficulties. The participants stated that at times they felt isolated due to the lack of English speaking residents at the facility, and because they were not able to engage or communicate with the majority of residents. Even though the Aged Care Facility provides many outings throughout the month and has several daily in-house activities, the participants felt they either could not join in on these activities because they felt they did not belong and they felt that the games provided, or the people playing the games, were below their own intellectual ability.

All of the participants spoke on the phone to their families several times a week and more than half were able to see family members at least once a week. Even though the level of communication between the residents and their relatives was moderate to high, four participants confessed to feeling very lonely and isolated, wishing they had someone to talk to at the residence or in person. All of the participants stated that they

avoided contact with others on purpose, by not joining group meal times for example breakfast, lunch, or dinner and by staying in their rooms.

### 3.2 Computer Use

It proved challenging to create an email account for two of the participants, Using the mouse and keyboard was complicated due to the participants' shaky hands. The most difficult task participants found was choosing and typing the passwords as many mistakes were made whilst typing, and many requirements were needed for the creation of passwords, for example the combination of lower case and upper case letters, and numbers.

Creating a Facebook account was less challenging as most of the participants had learned basic computer use by this stage and had created an email address. One participant was not able to create a Facebook page because they did not master computer usage, nor could they create an email account. Creating the Facebook account required less information to be completed and did not require a combination of capital and smaller case letters. Each participant took about 10–15 min to create a Facebook account in comparison to establishing an email account which varied from 30–45 min. Each user name and password was recorded by the on duty facility Manager, as well as given to each participant on a piece of paper. Notices and information regarding how to access email and Facebook were laminated and hung on the walls of the computer room.

Out of the 6 participants 2 participants had existing Facebook accounts and 2 participants successfully created Facebook accounts for themselves. The oldest participant was not able to create a Facebook page because he needed more time to become familiar with computer use. This participant had never used a computer before and therefore needed more lessons to be able to create both an email account and a Facebook account. This participant was very keen to learn and showed a great interest in creating a Facebook profile and an email account. This particular participant felt he did not want to fall behind in the world of technology. The youngest participant was 69 years old, very mentally alert and learnt computer literacy and the use of email and Facebook the quickest.

Clearly not all elderly (defined as over 65) have the same skills. Current research classifies the elderly into three groups: 65–74, 75–84 and 85 and above [21].

### 3.3 Results of the Second Set of Interviews

The second set of interviews aimed to reveal the impact that the trial had on the participants. The interviews revealed that during the months the researcher was away, the organisation underwent a change and the computer laboratory was altered to accommodate for a wellness centre. According to the participants, the renovations began a couple of weeks after the researcher had left and they were not able to access the computers which had been placed there. This change largely impacted the influence computers and Facebook potentially could have had on socialisation, therefore altering



the initial questions for the second set of interviews. This change also demonstrates how important management support is to enable residents to become familiar with computers and social media.

The final set of interviews did reveal some great insights into the wants, needs and attitudes of the elderly in regard to Facebook and computer usage. The 3 remaining participants uncovered that learning the use of computers was something they thoroughly enjoyed and being able to connect with old friends and family was a delight and something they thought they would never experience via a technological device. Comments included:

- *“I really enjoyed the experience and I think this sort of thing is very useful and interesting”;*
- *“Computers and in particular Facebook helped me feel more connected to the outside world this kind of technology should be implemented on a permanent basis”;*
- *“I am very eager to lean; if someone would help me I would definitely be interested in a program like this in the future”;*
- *“I think the major issue was that no one took over the program once the facilitator left”;*
- *“I am very upset that the changes took place, I really enjoyed the computer lessons with the facilitator, and I felt that they were very useful and fun.”;*
- *“I would definitely participate in something like this again. I enjoyed using my Facebook page with the facilitator, but I was not able to use it on my own, I needed more practise”.*

The two participants who already had social media accounts told the researcher they used the platform on a daily basis to connect and talk to their immediate family members. They stated that social media helped them stay in touch and that it was easy to use from the comfort of their own rooms. All of the participants interviewed stated that they would recommend computers and Facebook to other residents and hoped that this would become a permanent feature of the aged care facility. One participant made suggestions for the facility to place the computers in a common area so that residents would be able to have access to them on a weekly basis.

## 4 Discussion

More research is needed to understand the benefits and social implications of how the elderly use social media. This preliminary research illustrates the possibilities of Facebook enabling communication given the importance of retaining remaining social ties and the growing issue of social isolation in the elderly in an aged care facility. Whilst this study is merely a pilot study for future research, it aimed to discern whether a project of this kind is feasible. Our social welfare partners (Jewish Care Victoria), claim that the most isolated elderly are those living as individuals at home. And governments are keen to keep the elderly at home, rather than institutions, for as long as possible. So it would have been ideal, to survey this cohort. The limited resources available for the project, limited our ability to take such action yet pilot results are encouraging and appear to justify expanding the research in that direction.

A weakness of this research is the small number of participants which the researcher was able to gather for the purposes of this paper. However, given that this report is about a pilot study, where our goal was to find whether future research on the project would be viable, we were not concerned that the results might not be generalizable.

According to the findings of this paper, Facebook can be adopted and used by the elderly. This is conditional based on their level of cognitive comprehension, and mobility, and given they need to be provided with lessons and personal assistance. The small sample that participated in the research demonstrated positive attitudes toward the adoption of new technology. Facebook enabled two participants to connect with their family and friends on the social networking site and concluded that the two participants had a pleasant and enjoyable experience using the technology.

The research also discovered that two of the participants at the residential care facility had existing Facebook accounts, further adding to the possibility of the elderly using these applications. As time passes, a greater percentage of the elderly will have Facebook accounts.

It is important to mention that once the participants were denied access to the computers and no assistance was available for the participants to continue to access the technology, the participants became irritated because they wanted to continue learning and using the technology. Therefore it can be concluded that computers did provide a satisfying and practical experience to this group of people. Further, we learned from this project, that for the successful implementation of a social media it is imperative to provide appropriate and extensive training for those elderly who are commencing the use of computers and new technology.

It is vital that the different levels of comprehension and aptitude of residents are understood by the organiser of the training. Each participant in this study revealed that they comprehend the technology at varying rates and learn the technology at a different pace. The research team admits that more training should have been provided for each participant. Ten lessons each would have sufficed, but due to time limitations and other resource issues only three lessons were able to be given.

The study was deficient in resources, participants and time to determine whether Facebook could be of any use or of assistance to the elderly living in aged care accommodation, especially to combat social isolation. The results can be said to be inconclusive to confirm the hypothesis. This is due to the participants not being able to access the technology for a prolonged period of time, and not feeling confident enough to access technology on their own. However the personal encounters and experiences of the participants confirm that the computer lessons including the use of Facebook and email have been extremely useful and thoroughly enjoyable for all of the participants involved.

The research found common issues and problems experienced by all of the participants in the study:

1. the small print on the computer screen made it difficult to read the text;
2. using the mouse such as clicking and double clicking were made difficult due to the participants having shaking hands;
3. remembering user names and passwords was difficult at times, and
4. remembering the steps involved in how to log into email and Facebook accounts.

These issues were all addressed and did not stop the participants' progress or their use of computers. The education provided to participants needs to be practical and provided for a suitable period of time.

Another important aspect which came forth was that assumptions cannot be made upon a participant's ability to use the technology based solely upon a participant's age. Many elderly people were familiar with the technology and Social Networking Sites due to the influence of their children and grandchildren, media, and self-education. The oldest participant was the most keen to learn and had exponentially positive attitudes towards learning a new technology.

The problems discovered in implementing social media into an aged care facility included gaining access to devices and the provision of wireless. Some participants had personal computers and private Wi-Fi in their rooms; which was provided by their immediate family. As older people who reside in aged care facility receive only a small portion of their pension (the remainder goes to the aged care provider to provide for their care) it would be very difficult for them to personally afford internet access. Hence the aged care facility should consider providing both personal computers and wireless for its residents.

An interesting factor about the aged care facility where the research took place was the form of isolation and loneliness experienced. The participants stated that at times they did feel isolated from their families, but more importantly they felt isolated due to the lack of English speaking residents at the facility, to whom they could relate and engage in friendships. The participants stated they felt 'out of place', alienated, and different from the other residents.

The second set of interview questions brought forth that participants were equally interested in the technology and satisfied because they gained a new skill. The participants were not given the opportunity to socialise on Facebook for a sufficient amount of time to draw a solid conclusion as to whether Facebook assisted in their feeling of social isolation and if Facebook encouraged and facilitated reciprocated communications.

This research demonstrates that future studies are necessary. Further residential aged care facilities should make a concerted effort with helping residents master this technology in a bid to encourage social interaction. Doing so will provide an interesting and useful experience for an elderly person who resides alone in an aged care facility.

## 5 Conclusion

The paper discussed the possibilities of the use of Facebook (and computers) as a possible enabler of communication to ease feelings of social isolation for the elderly living in an aged care facility. The research utilised two sets of interviews to qualitatively determine each participant's attitudes toward a new technology, feeling of social connectedness, and the impact the implementation of computers and Facebook had on the participants. Moreover this paper has given an in-depth and personal view of six residents and their experiences in dealing with this technology.

The paper was successful in the intent to discredit a viewpoint that an elderly person cannot or does not have the capability or understanding or will to use a

computer, the internet or social media websites. Furthermore the paper enlightens us about the possibilities and potential usefulness of implementing social media applications into an aged care facility. The findings bring forth important needs and wants of the elderly; including aspects to consider when introducing computers and social media to an elderly group of people and what challenges need addressing. Although this paper is not a comprehensive study on the topic, the findings support the validity of applications in a nursing home setting. More studies are needed to measure the validity of social media as a tool to assist with social isolation.

The most isolated elderly, who would most greatly benefit from social media usage, are those living in isolated individual accommodation rather than in an aged care facility. Future research is necessary to examine that population, extending the results of this pilot study. Such research would require:

1. Each participant to be provided with their own computer and internet access;
2. The research team to individually travel to the home of each participant.

In future research, we will investigate this issue as well as examine whether the administration of medicines to the elderly can be monitored via the use of social media. Based on pilot results that indicated difficulty in mastering the PC/Keyboard/Mouse interface, future research should consider using iPads/tablets instead of computers which may eliminate some of those barriers.

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