Busting the Myth of Older Adults and Technology: An In-depth Examination of Three Outliers

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Abstract. Background: A myth persists that seniors do not use the Internet, are ambivalent toward information and communication technologies (ICT's), and that a technological divide exists between older and younger generations. **Aims**: To explore the role of ICT's in the lives of seniors, in particular, those outliers who are thriving and fully engaged in the use of these technologies. **Method(s)**: This study employed a quasi-ethnographic methodology. In-depth semi-structured interviews were held with research participants in an effort to capture their context-dependent *lived experience* and deeply explore the role of these technologies in their lives. **Results**: Four themes emerged from the analysis of the data: social connectivity; face-to-face contact remains; positive addiction; and back to the future. **Conclusion**: This research is an exploratory study and provides a glimpse into the level to which some older adults are engaged with ICT's, in particular social media such as Facebook and video-conferencing technologies such as Facetime. The research findings are contrary to the persistent myth that seniors do not use these technologies.

Keywords: Gerontechnology · Older adults · Aging · Social networks · Internet

1 Introduction

The use of information and communication technologies (ICT's) and the concomitant increase in Internet use has been rather dramatic in older adult populations in Canada and the U.S. where 59% of adults aged 65+ used the Internet in 2013, compared to just 22% in 2004 [1, 2]. Even seniors over 80 years of age, 37% of them, are now going online regularly. Older adults use the Internet for a variety of tasks, including but not limited to, communicating with friends and family, social activities (dating), and seeking health information [3–5]. Internet usage has been associated with a number of reported beneficial effects including decreased loneliness [6] and increased sense of community [7]. Gatto and Tak [8] have further indicated that older adults have experienced a sense of connectedness and satisfaction when going online for communication. In spite of these findings there persists a myth that seniors do not use the Internet, are ambivalent toward ICT's, and that a technological divide exists between older and younger generations [9, 10]. The bulk of the research in regard to seniors and the Internet is geared toward quantitative surveys and little research exists exploring the

experiential dimension of ICT use in this population. The purpose of this study was to explore the role of ICT's in the lives of seniors, in particular, those outliers who are thriving and fully engaged in the use of these technologies.

2 Methods

This study employed a quasi-ethnographic methodology. The boundaries of an ethnographic methodology are often unclear [11] and I have incorporated two traditional ethnographic methods in this study, namely, semi-structured interviews and participant observation. Given these blurred boundaries I feel most comfortable referring to this work as quasi-ethnographic. The approach was well suited to explore the *meaning-making* activities (ICT use) in the lives of these *social actors* (my research participants) [12–15]. In-depth semi-structured interviews were held with research participants in an effort to capture their context-dependent *lived experience* [16] and deeply explore the role of these technologies in their lives. Observation of the participants online activities validated the themes that emerged from the interviews.

2.1 Recruitment and Data Collection

Attesting to the intrinsic and exploratory nature of this research [17] a small sample (n = 3) was purposefully selected [18] to ensure participants were active ICT and Internet users. An interview guide was developed and used to structure the interviews; however, a flexible approach was maintained stemming from the idea that excessive structure may inhibit one's ability to access participant worldviews [19]. Interviews took place at a location convenient to the participant (two at my home, the other at the home of the participant), consent was obtained and the interviews were audio recorded. Pseudonyms were used to maintain confidentiality of participants. Participant observation was employed to triangulate and validate the data [18, 20].

2.2 Sample

The participants in this research project all live on Salt Spring Island, B.C. The first participant Jean, is widowed, 88 years of age, and has had a computer since 1995. She uses a variety of devices including iPhone (smartphone), Skype, Facetime, Lifeline (an emergency call alarm system), Internet, and social media such as Facebook and Pinetrest. She actively uses email, and plays a variety of online games against both friends and strangers. She has created accounts at Linkedin and Twitter but rarely uses these platforms.

Paula is separated, 71 years of age and could not pinpoint the exact date she started using computers. She mentioned she used them in the workplace and had an interest in technology dating back to the 1970's. Similarly, she could not recall the exact date when she began to use the Internet, but was able to approximate that it was "long ago". Paula has an iPhone, iPad, laptop and desktop computers. She actively uses email, Facebook, Apple TV, and plays a variety of online games but only against friends. She has also created accounts at Linkedin and Twitter but does not often use these.

Bill is a married gay man, 82 years of age and he started using computers in the early 1990's and the Internet around 2005. He has had a desktop computer and now uses a laptop exclusively, he does not have any other devices. Bill uses email, Facebook, Skype and plays online games with friends.

3 Data Analysis

In place of *naïve reading* [21] the recorded interviews were listened to repeatedly in order to gain an overall understanding of the data. Key passages from the recordings [22] were then transcribed verbatim into a Word document. The transcript was examined line-by-line and coded for themes that were emerging from the data [18, 20]. The purpose of this deep analysis was to ensure that the lived experience of the participants would surface from this process.

3.1 Ethical Considerations

This research was conducted under the guidelines provided by the Royal Roads University Research Ethics Policy [23]. The participants in this research project were volunteers, they provided written consent, and were informed that they could leave the study at any time.

4 Results

Four themes emerged from the analysis of the data: (1) social connectivity; (2) face-to-face contact remains; (3) positive addiction; and (4) back to the future.

4.1 Social Connectivity

When asked about the role that the Internet and social media played in their lives, all participants provided rich and very personal descriptions, evidenced in the following quotations:

Jean: "a huge one, um, I now have over 800 friends on Facebook… so this is where we gather a lot of friends that we didn't know before… and it's all very interesting to get all these different viewpoints."

Paula: "They keep me connected, I love Facetime, because um, if my daughter's walking through Central Park and it's dark, I'm there with her (laughing) and keeping an eye out making sure she's not, you know, in any trouble, because quite often she gets to the park and she calls me and we do the walk together so I feel as if I'm in New York, I feel connected to her little puppy and I feel she uses it to keep tabs on an elderly mother."

Bill: "It's a good form of communicating, especially with old friends, and it is also a form of entertainment and information. It keeps your mind going because it kind of stimulates your thoughts and you have a chance to react, it keeps you engaged with what's going on in the world and in your circle of friends. It keeps you from being

isolated, in fact, after losing my partner of 42 years, I met my new partner online 7 years ago (at the age of 75) and that would have never happened without the Internet, I would still be by myself."

The theme of social connectivity was present throughout all of the transcripts. Had the entire conversations been transcribed verbatim a content analysis would have revealed plentiful usage of the terms *connected* and *connectivity*. Paula's comment on walking with her daughter in New York, suggests her lived experience includes a sense of virtual embodiment at a transcendental level. Not mentioned in the above quote, Bill also reminded me that he moved to Canada from the U.S to be with his new partner, attesting to connective power of the Internet, and also breaking another stereotype we have about aging – that of sexuality.

4.2   Face-to-Face Contact Remains

One concern regarding the use of and reliance on technology, particularly in regard to older adults, revolves around the idea that it may replace in-person contact and social connection. Interestingly, all participants in this study asserted that the majority of contact with local friends was in-person – "the people I know here, I engage with personally" (Jean), and Paula elaborated further:

> "I prefer in my home here to be outdoors, to play tennis with my friends, to hike on the trails with my friends, um, to get that physical exercise that you need that you don't get when you're just sitting at a computer."

Bill noted:

> "The Internet helps with face-to-face contact, for example, if I need to find a partner for a bridge game at the senior center I can easily contact friends online, it's a real plus."

All participants were quite adamant in highlighting the importance of maintaining frequent contact with local friends *offline* and *in-person* and these assertions factored into my decision to label the next theme positive addiction versus addiction.

4.3   Positive Addiction

On one hand, addiction may be described as an uncontrolled behavior that harms both the user and those family, friends, and potential strangers that surround them. Positive addiction on the other hand, refers to a behavior that provides a positive force in one's life and provides a sense of empowerment [24]. The interviews revealed tendencies toward somewhat excessive use of ICT's; however, in light of the connectivity provided by these technologies and the participant's maintenance of in-person contact with friends and family, I felt the commentary could be classified as positive addiction:

Jean:

> "Yeah, Compuserve was the email thing then and um, so we were communicating with my son and family, and um gradually other people who got computers (laughing) and then the world wide web arrived on the scene and so we were in on the beginning of that almost and I don't know, I just got hooked (laughing)."

Paula:

"I think I'm compulsive and sometimes I want to get something done and three hours can be gone by before I know it, you know, and I'm still on my computer and I don't think that's healthy … early on I think there was a time when I um became a little antisocial and spent too much time on my devices, uh I'm now trying to put everything in perspective and I'm trying to spend less time and more time with real people, that's important to me."

Bill:

"There's a tendency to use it (Internet) a little too much, especially on rainy days, and there is the potential for it to make you a little more lazy…it's a little bit addictive because you come to depend on it sometimes."

Paula's comment appears to have some qualities of addiction, but her awareness of her own compulsiveness and the interview taken as a whole do not suggest any negative outcomes as a result of her ICT use. Having said that, we both found some humour in the following:

Paula:

"I think you have to pace yourself and realize when you're too addicted to certain aspects of your life (her phone rings) … that might be my daughter (she feels compelled to check, I smile, and we share some laughter)."

4.4   Back to the Future

This theme revolves around the participants tapping deep into their memories and sharing some insightful and in the case of Jean (reflecting on memories of her father, now passed away) touching commentary.

Paula:

"I remember in the 50's our teachers used to talk about robots and the future and I couldn't envision it and it's here…and I never used to think that was possible but we're getting a glimpse of that….you could really become introverted and I don't think that's a good thing, I think it's really important to have that connection with people and to still meet people…so I'm hoping that technology doesn't take over completely, because I think it would be a sad world if it did."

Jean:

"I have a memory…my father used to write a letter (when Jean and her mother were away from her father due to his work and traveling around the world)…and I remember still he said wouldn't it be lovely, and I'm talking 1935, if we had a short wave radio that we could talk to each other with and see each other with while we're apart…..so now we have."
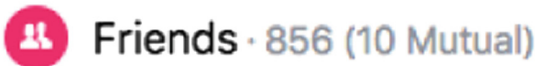
Bill:

"The miracle of technology is that you can talk to people and see them at the same time, this is a miracle that we never envisioned…for instance I can talk to friends and relatives overseas that I would not otherwise have the opportunity to be in contact with on this personal and direct level, it used to take two weeks for a letter to get there!"

The lived experience is reflected in all of the themes. Here it is revealing to see how in reflecting upon past thoughts about technology they are in a sense marveling

and expressing thanks for having lived their lives in this period of dynamic and what is perceived to be positive change. Interestingly, Paula remains aware and warns of the potential for this seemingly positive state of affairs to descend into a dystopian future.

5 Participant Observation

All participants are on my friends list on Facebook. In the week prior to and following the interviews, I checked their usage regularly and noted they use social media daily, often appearing online every 2–3 h. The following screenshots were taken to confirm the participants engagement on Facebook. From Jean's page (confirming her number of friends):

From Paula's page:

Louie and Buddy having an early morning chat on FaceTime. Louie is pooped from having spent an hour in Central Park. He found the biggest stick ever and insisted on carrying it all the way home. It is a dog's life.

From Bill's page, confirmation of his engagement with online gaming:

Playing since Dec. 8, 2012	
Victory Percentage 372 Wins 511 Losses 4 Draws	**41** %
Best Word Score "BETONIES"	**140** pts
Best Game Score:	**548** pts
Bingos	**618**
ELO Rating	**1767**

Jean's 856 friends is comparable to the level of engagement one might expect from a person in their 20's or 30's. Even more illuminating is Paula's post that provides us with confirmation of the Facetime call to her daughter and evidence of the virtual *walk* in Central Park that was described in her interview commentary.

6 Discussion

The findings in this study provide contrary evidence to the myth that older people don't use technology and are not online. While we know from quantitative data that seniors are in fact using the Internet [1, 2] this research provides a glimpse into the depth to which some seniors are engaged online. All participants in this study may be viewed in terms of what Rogers [25] categorized as *early adopters* of technology.

While one theme displayed a tendency toward categorizing one's behavior online as addictive, it appears that such addiction was of the positive variety. The positive health benefits associated with social connectivity [6–8] as evidenced in the discourse of these three participants appear to outweigh any negative consequences. The embodiment theme outlined in the passages from participant Paula in regard to videoconferencing (on Facetime), and the sense of *being there* replicate the findings of Beringer & Sixsmith [26].

It was interesting to note that these participants found technologies such as social media provided them with another layer of social engagement and that it did not lead to the social disengagement and replacement of human contact that has been theorized in numerous studies [27–29].

7   Conclusion

This research is an exploratory study and provides a glimpse into the level to which some older adults are engaged with ICT's, in particular social media such as Facebook and videoconferencing technologies such as Facetime. The research is contrary to the persistent myth that seniors do not use these technologies. Interestingly, this in-depth examination of three outliers suggests future research may be directed toward developing a better understanding in regard to the level of *engagement* older adults are in fact having with these various technologies. Further, contrary to the tendency of existing literature to focus on the negative aspects of technology, this research provides insight into the potential for these technologies to help seniors thrive as they move through their later years.

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