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## **Do computers increase older people's inclusion and wellbeing?**

Two recent studies have each examined older people's use of computers and new technology, one set in South Eastern USA and one in the UK. The authors of both papers highlighted the way that commercial and government-supported activities and services operate more and more online, requiring people to have access to a computer and be able to use it. They also point out how more people aged 55 and over, compared to younger people, are excluded by not having either access to a computer or computer skills. This is referred to as the 'digital divide' between those who are able to be on line and those excluded. Isolation due to reduced mobility and transport is already known to contribute to poor mental well-being in older people, the papers remind us. Both studies involved finding out how older people use computer technology and about their experience of it. The first paper I discuss focused on the experiences of older people in retirement communities in the USA who used a form of tablet computer (iPad or Kindle Fire). The second paper focused on older people in the UK who had attended a computer class offered by AgeUK.

### **Older people staying connected in the USA**

#### **What stops older people using computers and the internet?**

Tsai, Shillair, Cotton, Winstead and Yost (2015) begin by discussing the digital divide: Those with higher levels of education and higher income are more likely to use computers and have computer skills, as are those in less densely populated areas and younger people. Older people, these authors point out, can also become more isolated because of age-related physical impairments. Yet, if older people can use computers, some have suggested, this could help reduce their isolation. Tsai et al. (2015) describe two of the barriers as being the cost of a desktop or mobile computer, and people feeling that they will find them

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difficult to use. They discuss research suggesting that older people tend to be less positive about computers than younger people, and not as confident in their use. However, other research, they explain, suggests that people can change their view and become enthusiastic users of computers if they have the right support and training. Also it appears people will use computers if they can see a potential benefit, Tsai et al. (2015) explain.

Tsai et al. (2015) suggest that some of the anxiety and lack of confidence about using computers is because older people are less likely to have used them in their jobs compared with younger people. However, even for those who did, they suggest, it may seem that computers and technology are only for work, and not for leisure.

### **What are the psychological explanations behind people using computers or not?**

In their paper, Tsai et al. (2015) discuss the usefulness of psychological theory for understanding how older people decide whether to use computers. They list several things that predict people's intention to use new technology according to social cognitive theory:

1. People's expectations about what they will get out of using the technology,
2. How skilled they feel in using it,
3. Their previous experience with it, and
4. How much they see others using it.

### **What did the researchers want to explore with older people in the USA?**

Tsai et al. (2015) tell us that the results of previous research studies fit this view, although seeing others use technology was not included in that research, and they wondered if older people would have the same opportunity to see this as do younger people.

Tsai et al. (2015) explored three questions:

1. How did older people get a tablet computer?
2. How did they overcome lack of computer skills?
3. How did they think their computer had affected their life?

### **Who were the older people in the USA and what computers did they use?**

All the 21 older people who took part in the study had a tablet computer (iPad or Kindle Fire) and each person was interviewed for half an hour. They were aged between 69 and 91 years (9 men and 12 women). All lived in a retirement community (a type of supported accommodation that people pay for in the USA). Only 4 of the 21 older people had used computers a lot, with most people only knowing how to use email and to write using their computer. People's answers to each interview question were coded to answer the research questions. Two people coded parts of the interview separately and their coding was in fairly good agreement (84%).

### **How the older people in the USA overcame obstacles to using computers**

In terms of how people got their tablet computer, eight people were given it by their families, but most (13) bought it for themselves. Ten people had seen someone else using one before they got their own. Two people had been quite reluctant at first, one a man who had worked in technology and had enough of it, and the other a woman with arthritis in her hands and partial sight who was given an iPad. Both ended up as enthusiastic converts. Nearly two thirds of the people in the sample thought the devices were easy to use because of how they were designed, and this was often different from their experience with desktop computers. Indeed, the tablet computer felt so much easier to use that it seemed to boost people's self-confidence with computers, with one 84-year-old participant saying he felt "not stupid" (Tsai et al., 2015, p. 701). Participants also felt that the tablet

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computers were easy to use wherever they wanted, such as sitting “in their favourite chair” (Tsai et al., 2015, p. 702).

### **What the older people in the USA got from using computers**

Nearly all the participants talked about their computer helping them to feel more connected with family members. Emails seemed easier, and people liked sharing pictures. Several people appreciated being able to make calls involving a video link. Most participants felt more “connected to the rest of the world and less isolated” (Tsai et al., 2015, p. 703), partly by using apps to get news, weather and other information. This included a man of 95 who felt able to escape his “own little silly world” (Tsai et al., 2015, p. 703). The sense of understanding what others meant when using words related to computers also helped people feel more connected and up-to-date. People used social networks and felt these helped them stay connected with friends and family.

Over half of the participants said that having and using a tablet computer made them feel more part of the current world and this was often linked to feelings of confidence and esteem, with one woman (aged 86) saying “I feel like I’ve come up in the world.” People were able to keep up with their interests by using apps, and there was also a sense of enjoyment or relief of boredom.

### **The importance of seeing others using a computer and computers being easy to use**

Tsai et al. (2015) suggest that their findings are consistent with relevant theories on how people come to adopt new technology and with previous research on how people can feel more confident when the technology is easy to use. They point out that participants seeing others using a tablet computer and being influenced to get one fits with social cognitive theory.

One drawback of the study that Tsai et al. (2015) themselves highlight is the relatively small sample and that they were likely to be wealthy compared to many older people. However, it was encouraging, they suggest, that arthritis, mobility problems and some visual impairment in members of their sample did not prevent people using the tablet computers.

### **Older people in the UK using computers and technology**

Hill, Betts and Gardner (2015) refer to the increase in population of older people in the UK and the importance of preventing their isolation in an age of increasing computer use and provision of information and services through computers, as highlighted by Tsai et al. (2015) discussed earlier. Hill et al. (2015) refer to a different psychological theory to that of Tsai et al. (2015). According to Vroman et al. (2015), they tell us, older people's use of computers has been suggested to depend on three things:

1. The person's attitudes towards technology, their personal needs and ability to use it
2. How well computers fit in with day-to-day activities
3. Whether it helps them connect up with communities important to them

However, Hill et al. (2015) suggest that this theory is not enough to explain how and whether older people will use computers. It does not, they suggest, take into account all the differences between older people and their past experiences, nor whether they believe they are excluded from using computers or not (the digital divide).

### **Is it the training or the computers that help people feel connected to others?**

Although training in computer use seems to help reduce older people's isolation, Hill et al. (2015) write, it is not clear whether it was the training itself or the use of computers

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that reduced isolation, since attending training involves meeting other people.

Nevertheless, some studies, write Hill et al. (2015) have suggested that older people who use the internet feel more connected with other people and less lonely. They also refer to a theory called the social richness theory, which suggests that forms of communication where people can see as well as hear each other improve the communication, and therefore they suggest Skyping where people can see each other on-screen would be better than telephone or Skype without the pictures.

### **How real is the feeling of connection with people online?**

Hill et al. (2015) wonder if the importance of connecting with others through computers is that the internet enables people to find others who may live far away yet share their interests. Alternatively, they suggest, people tend to present themselves more positively on the internet than face-to-face, giving a false sense of closeness. Hill et al. (2015) also suggest that people's level of self-confidence (or efficacy) in using computers would make a difference to their readiness to use them.

### **What did the researchers explore with older people in the UK?**

Hill et al. (2015) wanted to find out in detail from older people what their experience was of using computers and technology, since previous research has used questionnaires rather than interviews or focus groups, so some of the important detail of people's individual experience may not have been captured. For their qualitative study Hill et al. (2015) had three questions – about how older people:

1. Use computers
2. Relate their computer-use to their well-being
3. Feel about computers

### **Who were the people in the UK, and what computer experience did they have?**

The study involved holding two focus groups with older people attending a 'digital inclusion' class run by AgeUK. There were 17 participants altogether, ranging in age from 54 to 85 years. There were 10 women and 7 men. The participants had attended at least one class. The commonest forms of technology that people used included "computers and phones (including land, mobile and smart phones)" (Hill et al., 2015, p. 417). Kindles, i-Pads printers and TVs were also mentioned, as were the use of Skype, Facebook, Twitter and emails.

Hill et al. (2015) used a qualitative method called phenomenology, which involves studying in detail what people say about an experience, in this case using computers, and trying to draw out the personal meaning of the experience for people in the study: What is it like for them personally and what does it mean for them?

### **Fears about using technology**

When reporting their results, Hill et al. (2015) wrote that older people in their study mentioned a number of fears about using computers and technology, including that it would be too hard, or the equipment would break or it would go wrong, and fears about online security and identity theft. However, there was a feeling that having training and someone explaining it helped to allay these fears.

### **Digital divide**

The participants in the study by Hill et al. (2015) seemed very aware of how some older people could become more and more excluded from society because of being unable to use computers. One person pointed out how even the AgeUK magazine contained several articles pointing to more information that was on the internet. Getting older was seen as a



challenge to keeping connected with others, through loss of mobility, and although computer use was not the whole answer, people felt that it helped. They expressed concerns about older people who could not use technology.

### **Anxieties about the effect of technology on younger people**

Participants of the Hill et al. (2015) study felt that young people were losing the ability to solve problems on their own, as they seemed to use their mobile phones and computers to be continuously connected to others. This was also felt to be a barrier to face-to-face communication, with mobile devices intruding upon these situations, and the social rules with which people had grown up being forgotten.

### **How computers helped older people in the UK**

Similarly to the findings of Tsai et al. (2015), Hill et al. (2015) report that participants were able to keep up hobbies and interests through their computer use, for example renewing library books online and connecting with interest groups. People felt more able to link up with family who lived in a different country, for example seeing their grandchildren on their birthday. This increased people's enjoyment of life and sense of connectedness to others. There was no evidence of people feeling that closeness was false in the case of this sample. They still wanted face-to-face activity as well, with the internet enhancing and supporting this.

### **The need for training that takes into account people's anxieties**

Hill et al. (2015) suggest that findings like theirs support a case for forward planning by services and industry to prevent older people becoming isolated through inability to use computers and digital technology. Both government and business rely increasingly on this technology to save money, they point out, and they highlight the UK government's policy of

increasingly moving services and communication with the public to online channels (Cabinet Office, 2013). An update of progress on this policy, including provision for assisting people to get online, has been provided (Cabinet Office, 2015), and unsurprisingly this is available online. Hill et al. (2015) emphasize the importance of allaying people's fears about data theft and other fears highlighted in their study, which must be addressed by those seeking to increase online use by older people. Training needs to be supportive and recognize people's understandable anxieties. They also suggest that research is needed with people who are not currently using computer technology since their sample consisted only of people who had already received some training.

## **Conclusions**

In both these studies of older people and their use of computers and computer technology, there was evidence of needing to overcome initial obstacles, such as worry that it would be difficult to use computers, but once having done so, using them with enthusiasm. In both the USA and UK people used computers to stay connected with family members and to keep up their interests or hobbies at a time when their mobility was declining.

There were more fears mentioned in the UK sample, and that might have been due to the interview questions being different, or the sample of people being different and having different concerns. For example it may be that the USA group, living in paid-for retirement communities, had less day-to-day interaction with younger people who used their mobile computers or smart phones during face-to-face encounters, so that people in the UK may have been more aware of this and therefore more likely to experience it as an intrusion and an erosion of usual social expectations.

It was clearer that in the USA sample, seeing someone else using a computer helped them to take the initial step, whereas the UK sample was selected from those who had attended computer training aimed at assisting older people into technology use. However, the UK sample seemed to highlight the importance of that training, in that people felt that it helped them overcome a number of their initial anxieties, including fears about identity theft. Someone taking time to explain it to them was important. Indeed, there may be whole groups of older people in less affluent contexts who would be less exposed to friends or family members using computers, and for them, access to training in a convenient community location may be essential.

Mild forms of sensory and motor impairments did not appear to be a barrier to computer use in the USA study, although little mention was made of such impairments in the UK sample, other than reduced overall ability to get out and about, and computer use clearly helped with this. However, further research may need to look at people who have more disabling impairments, and those with learning disabilities, to ensure that those most disabled, perhaps due to existing disabilities aggravated by advancing years, or with new severe disablements in older age, are not left behind.

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