# Loneliness and Digital Inclusion: A Literature Review

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**Abstract**

The focus of this literature review is to look at how the topics of 'digital technology' 'loneliness' and 'isolation' inter-relate. Research findings are mixed with examples of how going online for specific purposes, particularly to maintain contact with existing family and friends and to access information (which is increasingly only available online) can help *some* older adults to feel less isolated and lonely. A distinction needs to be made between the chronically isolated or lonely people and those for whom this experience is transitory. The former group are more likely to have a negative interpretation of social interactions, including those occurring online. Where older adults have a clear goal in mind, are motivated, and are offered skills training in an appropriate setting and delivered in a focused way, some can be helped to go online. However, the review concludes that many people will never go online and that for those people care should be taken to ensure that alternative means of access to services and social interactions are maintained. The internet is not a panacea for loneliness.

**Key Words:** Digital inclusion, Loneliness, Older people

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### Introduction: Digital Inclusion and Older Age

'Digital inclusion' is promoted by government as a means of helping to 'tackle wider social issues, support economic growth and close equality gaps'[1] and digital services are becoming the default option for people accessing public services, information, entertainment and each other. For people to be 'digitally included' they need to have 'digital capability'[2]. Both concepts – inclusion and capability – are relevant to this review.

Nationally, a 2014 survey estimated that 84% of adults had access to the internet but this proportion was only 75% in the North East region (Ipsos Mori, 2014). The same study estimated that one in five adults fell below the digital skills threshold, with 2.6m lacking basic literacy skills. Whilst the absolute number of people using the internet continues to grow year-on-year, the survey suggested that the over-representation of older age groups amongst non-users was becoming more pronounced; people over 55 accounted for 80% of non-users, compared to 69% two years earlier (Ipsos Mori, 2014). For those aged 65 and over, there was over-representation amongst non-users (68%), amongst 'lapsed users' (59%), and amongst those reliant on others to access the internet on their behalf (59%).

Older people disengaging from digital has been the subject of other studies (Damodaran, Olphert and Sandhu, 2014) and more recent estimates from the Office for National Statistics confirm that an increasing proportion of non-users of the internet are in older age-groups; an estimated 4.8 million people aged over 55 make up 91% of the population who are not on-line (Serafino, 2019).

Nevertheless, although disproportionately over-represented amongst non-users, the proportion of older people who *do* use the internet has also risen. The English Longitudinal Study on Ageing recorded a significant growth in people aged 75 and above using the internet between 2002 and 2014; amongst women, this grew from 20% to 40%, and for men, it reached over 50% (Richardson, 2018). Particularly rapid growth in recent years has been attributed in part to increased ownership of tablet computers which have become cheaper over time.

Older people are also likely to be 'narrower' users of the internet, meaning that they use it for fewer activities. Richardson (2018) identifies emailing and finding information about goods and services as the main uses of the internet amongst people over the age of 65, whilst only about a quarter of this age group used the internet for social networking.

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[1] https://www.gov.uk/government/publications/government-digital-inclusion-strategy/government-digital-inclusion-strategy

[2] https://publications.parliament.uk/pa/ld201415/ldselect/lddigital/111/11115.html

**Why are some older people digitally excluded?**

Davidson (2018) used data from the Understanding Society longitudinal survey (wave 7, 2015 -2017) to identify factors that most strongly explain non–use of the internet by people aged 65 and over. These were:

- Lower income
- Older age
- Living alone
- Mobility challenges
- Self-reported problems with memory and concentration

In contrast, educational attainment and self-reported ill-health were found not to be significant determinants of internet use.

Recent research has also urged urges a distinction between 'unproblematic non-use' – people who thrive without internet use and who are happy to accept proxy use as part of reciprocity and inter-dependence – and 'true digital exclusion' (Richardson, 2018). The report describes 'true digital exclusion' as *'non-use which accompanies and exacerbates other forms of social exclusion and disadvantage'.* Similarly, Davidson (2018) advises that we need to recognise that some people will never get online as it is '*neither urgent nor a priority*', acknowledging that some people *'make well-informed choice that it's something they don't need*'.

However, exploration with those who say they are not interested or don't need the internet suggests that other factors may also be at work. These are identified by Davidson (2018) as:

- Not understanding what benefits the internet can bring
- Lack of skills and knowledge about digital technology
- Concerns about security
- Cost

This echoes the earlier findings of Berry (2011) who suggested that *"whilst non-material factors predominate in the reasons people give about why they do not have internet access*, *material factors cannot be dismissed"*.

**What are the downsides of digital exclusion?**

Davidson (2018) highlights that some older people, unable to enlist the help of family and friends, are dependent on increasingly squeezed voluntary sector services. In the words of one local Age UK branch contributor:

> *"Exclusion from online services... is a growing problem and people are sent to us to help. Telephone lines are busy, and you are directed to online communication for*

*almost everything – benefits, gas and electricity, tax, blue badges etc. Our local authority wants most changes reported online and they offer very little face-to –face service and are reluctant to take changes over the telephone…"*

Whilst the Public Sector Equality Duty requires public sector bodies to protect equality of opportunity between groups with protected characteristics including age and disability, the study reports on 'mystery shopping' contact with 100 randomly selected local authorities asking what methods were available for those not using the internet to claim benefits. Over 40% said that claims could only be made online and although most councils offered support to claimants, 14 authorities did not do so. The report concludes:

'*Moving public services online without sufficient support is making it harder for some who don't use the internet to access services, could deter people from seeking the support they need, and can increase dependency.* (Davidson, 2018)

As well as the drawbacks of not being able to access services in another way, there is also some evidence that where non-digital access is possible, it comes at a higher price. Davidson (2018) suggests that non-users over the age of 65 pay more for goods and services partly because they are less likely to make comparisons and switch utility providers. The report quotes a Price Waterhouse Cooper estimation that internet access saves an average household (of all ages) £560 over the course of a year through being able to research and achieve cheaper deals. A Swedish study found that personal economy could be a driver for adopting digital technology in older age, for example by allowing people to set up direct debits and monitor fuel use (Renland-Forsman, 2018). The same study found that older people not using digital technology were paying 'punishing prices' for accessing services off-line and were unable to access information about travel options and travel tickets.

Being 'digitally included' has been recognised as increasingly important for everyday activities like shopping, using a telephone and banking (House of Lords, 2015). Davidson (2018) expands this list to include:

- Accessing essential services and utilities
- Getting the best deals and rates
- Communicating with companies

Although the report concludes that '*rigorous evidence about the benefits is lacking',* it suggests that the benefits of going online may include:

*"helping people to stay connected or reconnect with others, accessing services and amenities including online shopping, getting practical help and information, education and learning, and pursuing hobbies and interests, to name a few.'*
(Davidson, 2018).

**Digital Capability**

In surveys of digital behaviour, the most frequent reasons older adults give for non-use of the internet is that it is not valuable or relevant to them, whilst others cite issues of affordability, security concerns and perceived complexity.

People over 50 are a heterogenous group with regard to digital technology use because their past employment, motivation and existing knowledge varies (Lee and Coughlin, 2014). Whilst people over 55 are less likely to have used digital technology in the workplace, those at the younger end of the age spectrum still have a long period of their working lives left. Richardson (2018) cites ONS data on the employment of adults aged 50 and over:

> *"Since 1992, the proportion of people aged 50 – 64 in the labour market has risen from 61% to 74%; for people over 65 it has almost doubled from 5.8% to 10.5%."*
> (ONS, 2018)

Workplaces are increasingly digitalised and older workers may or may not need to use digital technologies in their jobs. For those dependent on the benefits system, however, there is little choice. Claimants are required by to carry out job searches and complete applications online, risking benefit sanctions if they fail to do so. Job centres refer those without digital skills to centres offering on-line training, but this can be daunting for some older jobseekers.

At older ages, research has found that cognitive decline may contribute to digital disengagement (Damorden et al, 2014). Similarly, a small-scale study of adults over 60 attending lessons in computer use aimed to develop a method of enabling older learners to use digital technology and to assess the cognitive gains of doing so. The researchers found that older learners required repetition to reinforce learning, asserting that:

> *"Older learners who express an interest an interest in being trained to use a computer need more time to attain this goal. Their training must be provided step by step and at a slower pace, and the topics must be constantly reviewed for better retention, due to age-associated changes in cognition."*
> (Nascimento, Sanches and Cachioni, 2010)

However, Richardson (2018) suggests that this is probably less important than a lack of self-efficacy; in the author's words: *"the phrase 'too old to learn' could be a self-fulfilling prophecy"*. Richardson goes on to suggest that intergenerational sessions are most likely to succeed when younger people have knowledge and understanding of the barriers older people may face.

People reliant on family and friends for their internet access - so-called 'proxy users' – can be left in a vulnerable position if the source of their support falters. One small study in Sweden found a woman in her early 90's depended on her 72 year old son who had

computer access but limited digital skills, and himself depended on a former work colleague to set up contact with services and utilities for his mother (Renland-Forsman, 2018).

**Tackling loneliness through digital inclusion**

The evidence on whether digital inclusion can decrease loneliness is mixed and can be contradictory. A study synthesizing quantitative studies on internet use among older adults (Hunsaker and Hargittai, 2018) concluded that the impact on health and well-being was *"promising"* rather than *"conclusive"*.

Cross-sectional analyses accounted for many of the studies encompassed and showed some positive results. Cotten et al. (2012), for example, assessed that use of the internet reduced the likelihood of being classified with depression by 20-28%, whilst Yu et al. (2016) reported higher perceived support, and greater social connectedness, amongst older adults using social networking sites. Hunsaker and Hargittai's synthesis also reviewed other cross-sectional studies which *"found associations between internet use and greater social support, decreased loneliness, better life satisfaction, better psychological well-being, and better overall mental health"* (such as Heo et al., 2015, Lam & Lam 2009, and Seifert et al., 2017).

Nowland, Necka and Cacioppo (2017) draw attention to the need to distinguish between chronic loneliness and 'context-dependent or transitory loneliness'. A transient state of loneliness might encourage people to seek out social interaction, but chronic loneliness is associated with a negative - and potentially a loneliness-reinforcing - interpretation of social interactions. Rowland et al. (2017) highlight that because cross-sectional studies capture loneliness and social internet use at a single point in time, they do not enable differences in social internet use between the chronically lonely and the transiently lonely to be properly understood. Amongst the longitudinal studies encompassed, some (such as Cotten et al., 2014) found a link between internet use and reduced diagnoses of depression whilst others (Hamer and Stamatakis, 2014) found no such association.

Whilst Nowland, Necka and Cacioppo (2017) found some limited evidence that digital technology could help to reduce loneliness amongst older people, they concluded that:

> "*When the internet is used as a waystation on the route to enhancing existing relationships and forging new social connections, it is a useful tool for reducing loneliness. But when social technologies are used to escape the social world and withdraw from the 'social pain' of interaction, feelings of loneliness are increased".*

Similarly, Age Concern's recent review of research suggests that the evidence that internet use helps to reduce loneliness and improves quality of life is mixed, and that positive impacts were usually due to increasing contact with existing family and friends:

> *"While recent reviews of studies from 2000-onward reveal that a positive impact was found in some studies, neutral and even negative effects were found in other studies"* (Davidson, 2018)

The report highlights the limitations of existing research (small sample sizes; non-comparable interventions; the focus on the frequency rather than the purpose of internet use) and suggests that it is possible that "…*receiving an intervention – usually training on internet use and interacting with a teacher or peers – could itself be the factor that lowers social isolation and loneliness".* The report concludes that:

> *"It is clear from research that internet use is not a panacea for improving all older people's quality of life, but the areas that internet use does seem to positively affect in* ***some*** *older people in certain situations are helping them to: connect to the outside world, gain social support, and engage in activities and interests."* (Davidson, 2018)

Much of the academic research in this sphere has involved small qualitative studies with sub-sets of the older population. Hill, Betts and Gardner (2015) suggest that it may be *'the activities that older adults engage in when using digital technology that facilitated social inclusion and empowerment'* rather than acquiring digital skills per se.

A meta-analysis of experimental studies of computer and internet training being provided to older adults concluded that these interventions were effective in decreasing isolation, though not depression. They further conclude that benefits disproportionately accrued to frequent and more well-informed users, those in a lower age groups, women, and those with fewer physical barriers (Choi and Jung, 2012).

Focussing on care homes, Age UK (2012) found that less than 20% of care homes in the UK provided internet access, and that around 60% residents had never used the internet. However, it found evidence that digital technology in care homes had value as a life-enhancing activity, and as a means to supporting person centred care. Age UK promoted the 'Get Connected' programme in residential settings and found that, after a few months, most sites were able to identify a positive impact on both service users and staff.

Focus groups drawn from a regional Age UK membership who had previously attended digital inclusion classes concluded that digital technology could be seen both to 'empower' and 'disempower'. Hill, Betts, Gardner (2015) suggest that digital technology was seen to be disempowering because the language and perceived complexity of the technology dampened interest and confidence. People in these groups started out fearing that they would damage the technology and, when this fear was removed, they feared the security of the technology and their own data. On the other hand, the view that digital technology could be a 'life facilitator' through "enabling *older adults to overcome physical barriers such as distance, personal mobility, limitations of time, prohibitive weather conditions and the*

*move from physical to online to access opportunities"* was also expressed. (Hill, Betts and Gardner, 2015).

A meta-analysis by Choi, Kong and Jung (2012) examined how effective computer and internet interventions were at combatting (a) loneliness and (b) depression. The researchers concluded, from the small number of studies encompassed, that loneliness was positively impacted by the technology whereas depression was not. Given the benefit to psychosocial wellbeing, the authors advocate that *"web pages and applications for tablet PCs and smart-devices that older adults find more usable should be developed"* (Choi, Kong and Jung, 2010).

Some studies have identified specific opportunities offered by digital technology that may be particularly valuable. For example, Davidson (2018) draws attention to the value of sharing images:

> *"…older people specifically mentioned liking visual interactions with people, either via photos or videos. Another study found that people of all ages find that these visuals make communications feel more 'real' and intimate and can lessen feelings of social isolation."*

The potential of social networking sites to foster social integration and to enrich the lives of those who struggle to make social connections has understandably received attention. One study found that people with low self-esteem see Facebook as a *"safe appealing place for self-disclosure and that they spend as much (or more) time using Facebook as do people with high self-esteem*". However, the research also highlighted that people with low self-esteem are more likely to express themselves negatively and this can have the effect of pushing others away (Forest and Wood, 2012). This echoes the findings of Cacioppo and Hawkley (2009) who found that negative views of the social world held by lonely people could elicit behaviours that validated their expectations. Nonetheless, for people whose loneliness is transient, perhaps connected to major life events (such as bereavement or retirement), it is argued that effects can be life-changing (Davidson, 2018).

**What helps older people achieve digital inclusion?**

The evidence on what helps older people to learn how to use digital technology is similar across the board. Davidson (2018) proposes a typology of three non-material factors for use of the internet:

- perceived value to oneself
- self-efficacy (belief in one's ability to do something)
- need (achieving specific personal goals)

The advice from Richardson (2018) is summarised below:

- Make content relevant rather than abstract; avoid IT jargon (such as 'going online'); focus on activities of interest and on access to essential services.
- Promote self–efficacy – show people they can do it! Make learning flexible and suitably paced; provide one to one support when needed
- Consider if group sessions for older learners may be more successful than mixed age sessions; but without ruling out the potential of intergenerational approaches
- Give ongoing training and support – ensuring knowledge of how to get them - to help people apply newly acquired skills
- Consider the importance of physical accessibility and transport; many older people prefer to go to places near home, to not go out after dark, and to avoid bad weather

Older people's fear of digital crime was highlighted earlier. To address and redress this, it is imperative to include training on how people can protect themselves from scams and fraud, and ensure privacy is protected. Richardson (2018) therefore advises that within sessions:

- Computers, tablets and smart phones should be protected with anti-virus and anti-malware software
- People should be made aware of spam, phishing, malware and hijacking to facilitate safe email use
- People should be made aware of fraud and scams, including those around banking, passwords and payments

Finally, but importantly, Davidson (2018) points out that success should be measured by non-digital outcomes such as improved access to information or improved well-being rather than focussing on the quantity of people who attain digital skills.

**Conclusion**

Some of the negative impacts of 'digital exclusion' appear to originate in an economic rationale of services to reduce costs, and a political commitment to be 'digital by default', rather than being fostered by not using the internet in and of itself. The move to 'digital by default' for accessing services is leading some of those without digital skills finding themselves excluded and dependent on others. Whilst for some this is not a problem, and many older people feel no need to use digital, there is evidence of increasing pressure on the voluntary sector as people seek help to overcome the barriers created by the increasing need to be 'digital'.

The research reviewed suggests that *some* older people who are motivated and have a particular reason for going online can be helped to do so safely, and some may well feel less isolated or lonely as a result. However, established IT classes can be off-putting for older adults seeking to learn new skills, because of their breadth and focus. Guidance is available on how best to engage older people to learn, but this will be different for different people in this very heterogeneous group. Certainly, it cannot be claimed unambiguously that going

online is a panacea for tackling loneliness or feelings of isolation, nor a substitute for face to face contact.

The review presented here suggests the need to recognise various facts and factors, namely:

- that older people are highly heterogeneous and that this applies as much to digital technology as to anything else
- that people are only 'digitally excluded' if the preferences of service providers make them so by not offering non-digital alternatives
- that for some older people, internet access and digital skills can be life-changing, whilst for others they may be at best peripheral
- that interventions to 'digitally include' older people may in and of themselves have an impact on loneliness and social isolation
- that many people will always be 'digitally excluded' and that alternative ways need to be available to facilitate access to services and support

In the words of one report "*Some people will never be able to gain digital skills, but others could with the right help*" (West, 2015). The challenge is to provide that help where it would be welcome, but to ensure that those who, for whatever reason it would not, are not marginalised.

**Postscript**

Finally, and echoing the findings of others, what was notable in conducting this review was the small scale of many investigations, and the relative dearth of UK studies. The literature encompassed here includes research carried out in Sweden, in South Korea, in the United States, in the Netherlands, in Brazil, and in Switzerland. Comparatively little was completed in the UK.

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