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Digital Inclusion in Cambridgeshire and Peterborough: a study of limited internet use and proxy internet use

Dr Hannah Holmes
Dr Gemma Burgess

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UNIVERSITY OF CAMBRIDGE

Dr Hannah Holmes
Cambridge Centre for Housing & Planning Research
Department of Land Economy
University of Cambridge
17 Mill Lane
Cambridge

hh529@cam.ac.uk

Tel 01223 337115

https://www.landecon.cam.ac.uk/cambridge-centre-housing-and-planning-research

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1. Executive Summary

Digital exclusion – which occurs when people face various different obstacles to accessing or using the internet (Good Things Foundation, 2024) – is known to have a range of negative effects, limiting people's ability to engage with services and support. Connecting Cambridgeshire has identified delivering improved digital exclusion to communities across Cambridgeshire and Peterborough as a key priority in the Digital Connectivity Strategy 2025-2029. As part of this aim, the Cambridge Centre for Housing and Planning Research (CCHPR) has conducted a study of limited internet use in the area.

Following previous research which identified those who say the internet is 'not for me' and those who are 'reliant on others' to use the internet on their behalf as two key segments of the digitally excluded population (LOTI, 2021), this study focuses on these two forms of digital exclusion. The research is based on interviews and a focus group with individuals who self-identified as belonging to these two groups, as well as with proxy users (who use the internet on behalf of others), living or working across various locations in Cambridgeshire and Peterborough.

The key findings from the research can be summarised as follows:

- **Categories of digital exclusion:** This research found that people who consider the internet to be 'not for them', or who are 'reliant on others' to use the internet on their behalf, do often nonetheless have some use of the internet themselves, even where this use is very limited, or where they express strong negative feelings towards digital technologies. Additionally, these categories of digital exclusion are not mutually exclusive. The research highlights that people who do not feel the internet is for them may also depend on others to do some online activities for them. At the same time, some people with a very limited use of the internet who may fall into these two categories sometimes may act as a proxy user themselves for someone else whose own confidence or capabilities with using the internet may be lower than their own.

- **Factors shaping digital exclusion among limited internet users:** There are numerous different factors which act as barriers to digital inclusion, which were reported by participants in the research. These include: social exclusion, whereby people lack a social support system which can help them to get to grips with the internet; embarrassment around not already being able to use the internet, which can put people off seeking support; health challenges, which can make using a computer difficult if devices are not appropriately adapted to people's needs; and a lack of

interest, whereby people may not feel that they are missing out on account of not engaging with online opportunities, and do not want to be online.

- **Agency and choice:** Some people feel as though they do not have a choice as to whether to use the internet or not, since many services are now online by default. It is such that some people who feel the internet is 'not for me' nonetheless feel as though they are being forced to use it, as they consider the implications of not doing so too disadvantageous. This can cause resentment, and highlights the importance of providing offline alternatives to digitalised services.

- **The precarity of digital inclusion:** Digital inclusion is not a fixed state, and there are several factors which can lead people to become more or less digitally excluded over time. This study highlights that the fast pace of technological change can mean that people can become quickly left behind if they do not continue to learn about new digital technologies, or if they are no longer in an environment (such as an office) where they are exposed to new technologies. For people who rely on proxy users, changes in these relationships can also render them vulnerable to worsened digital exclusion.

- **The complexity of digital inclusion:** In order to attain a high level of digital inclusion, several different devices (including both a smartphone and a larger screen device), as well as forms of connectivity (including mobile data and broadband) are required. Only having access to a smartphone can create challenges for some online activities, such as filling in webforms which may not be optimised for mobile use, while not having a smartphone can preclude people from accessing some information, such as through scanning QR codes in public spaces. Beyond the materiality of digital inclusion, managing software can also present difficulties for people with limited digital skills, and can make navigating digital technologies feel complicated.

- **Online safety:** Concerns about staying safe online are prominent among interview participants, including both limited internet-users and proxy users. The research highlighted that fear of online crime or scams leads many people to avoid online activities, particularly those which involve using financial details, such as online banking or online shopping. Participants highlighted the need for messaging about staying safe online which raises awareness of the things people can do to protect themselves, while at the same time avoiding generating fear which may deter people from using the internet altogether.

- **Trust and proxy internet use:** For people who rely on a proxy user to access the internet on their behalf, trust in this proxy relationship is essential, since sensitive personal information often needs to be shared as part of performing online activities. Proxy users navigate various challenges associated with managing this kind of information on behalf of others, including concerns around liability for issues which may arise. However, proxy users typically find using the internet on behalf of others rewarding, and value the social connection with others that this can provide.

- **Mixed views on digital skills support:** While digital inclusion is widely recognised as important for engagement with public services, as well as for a range of essential daily activities, participants had mixed views on whether they would want to increase their use of the internet. Indeed, for some who rely on others to use the internet on their behalf, this arrangement satisfies their needs, and people in this situation may not see a reason to change this. Various personal circumstances, such as mental health issues and financial concerns, can present a barrier for digital skills development, as such pressures can mean that digital inclusion is not a priority for people. For those who would like to develop their digital skills, preferences for the form of support sought vary, with some preferring one-to-one support and others favouring learning in a group, and some preferring home-based support and others wanting to receive support in community venues. A range of different support options is therefore likely to be needed to accommodate different people's needs. However, regardless of the form of support provided, it is clear that trust and rapport between service users and support providers is crucial.

A number of recommendations have arisen from this research:

Understanding limited internet use

- This research highlights that categories of digital exclusion, such as those who say the internet is 'not for me', those who are 'reliant on others to use the internet on their behalf, and those who are proxy users for somebody else, are not mutually exclusive, with some people falling into more than one of these categories at once and moving between them at different times. This highlights that people's experiences of digital exclusion are highly varied, and that digital inclusion support targeted towards any of these particular groups ought to recognise that such distinctions are not clear cut and encompass a wide range of forms of digital exclusion. Digital exclusion is known to exist on a continuum (Livingstone and Helsper, 2007), and the extent to which people are disadvantaged by their digital exclusion will vary depending on their circumstances.

- This research makes clear that people who say the internet is 'not for me' are not necessarily internet non-users. In fact, most people who volunteered to take part in the research on the basis that the internet was 'not for them' did have some use of the internet, even if this was limited, or if they had strong negative feelings about digital technologies. This should be taken into account by local authorities and other organisations looking to target digital inclusion support towards internet non-users and limited-users.

Offering alternatives

- It is clear that many people do not want to use the internet, and sometimes feel as though they are being forced to do so as a result of services becoming increasingly digitalised. There is a clear need to ensure that people do not miss out on service provision as a result of choosing not to use digital technologies. Both public and private service providers should ensure that alternatives to digital services are available, and that these are easily accessible.

Addressing root causes of digital exclusion

- It is clear that digital exclusion cannot be tackled in isolation. As this research has shown, a range of other factors, including mental health and poverty, are crucial in shaping people's digital exclusion. Tackling these underlying issues will therefore be an important step towards addressing digital exclusion.

- Social isolation has been shown to be an important issue which can lead to people becoming more digitally excluded, due to a lack of support networks to assist people with getting online. Tackling social isolation is therefore an important step towards facilitating digital inclusion. Involving community organisations in digital inclusion support will therefore be important here, since such organisations often play a key role in addressing social isolation.

- Fear of online harms is a key barrier for digital inclusion, with several participants in this study noting that they avoid certain activities due to concerns around online safety and security. Care should be taken to ensure that messaging around online safety is balanced, raising awareness about practical steps people can take to avoid online harms and supporting people to use the internet with confidence, while at the same time avoiding generating fear around this issue.

- For people with limited digital inclusion, changes to familiar webpages and software can cause serious problems, as people may struggle to carry out online activities which they previously were familiar with. IT specialists and web designers should be

made aware of the needs of limited internet users, and should carry out updates with their needs in mind.

Evaluating current support provision

- It is clear that demand for digital skills support varies among people with limited use of the internet, and that not everyone wants to engage with support services. However, among those that do, there are diverse preferences around what form this support should take. A range of different digital skills support services catering to various different learning preferences, and accounting for various different needs arising from people's personal circumstances, should be available to ensure that anyone who wants to improve their levels of digital inclusion is able to do so in a way which suits them.

- Adequate funding should be made available to address digital exclusion. This should include revenue funding as well as capital funding. Small charitable organisations have a key role to play in offering support at the local level, but are often constrained by resources, which means they may not be able to reach as many people as they would like. Where organisations receive funding for equipment (such as laptops, tablets, and data sim cards), but not for staff salaries, they are reliant on volunteers. Approaches to funding should recognise that while equipment is important, people are also essential to delivering digital inclusion support.

- Embarrassment around not being able to use the internet, and fear around online safety, have been shown to present considerable barriers to people's digital inclusion. Generating a rapport and trust between digital support providers and people seeking this support is therefore essential to tackling these barriers, and digital skills support providers should ensure that professionals and volunteers delivering this support receive adequate training to be able to assist limited internet users in a non-judgemental and empathetic manner.

- This research has shown that there already exist a number of digital support services across Cambridgeshire, which are delivered through both voluntary and professional roles, in a range of different ways, including on a one-to-one basis and in group settings. In order to ascertain where there may be gaps in provision of digital support to suit various different individual needs, the existing network of digital support services across the local area should be evaluated. This would enable consideration of what is working in the local area, whether any additional services might be needed, and what additional support existing services might need to enable them to scale up, to ensure people are aware of them, and to reach those most in need. A local

directory of the wide range of support available across the county would help to ensure people can be signposted to the most appropriate support for them.

- The research highlights the importance of community venues, such as libraries, as well as community groups and community-embedded organisations for providing digital support. Care should be taken to ensure that these groups are adequately supported to deliver these services, and that local communities have access to digital skills support within easy reach, without needing to travel long distances to access this. Efforts should be made to provide limited internet users with opportunities to engage with digital support in a range of settings, including local council buildings, libraries, warm hubs, and pop-up events. This will help to reach people who may not otherwise seek out digital support.

Providing support for proxy users

- It is clear that acting as a proxy internet user is complex, and often requires people to handle private information on behalf of others, including email addresses and passwords. Currently, there are guidelines available for people looking to help others use the internet (see Good Things Foundation and Centre for Ageing Better, n.d.), but there does not appear to be a similarly easy to access resource for those who act as a proxy internet user. A set of guidelines should be developed which can support people who use the internet on behalf of others by providing advice on how to handle some of the complexities of this role. This should recognise that not everyone who uses the internet on behalf of others will have a high level of digital literacy themselves.

- It is clear that not everyone who would benefit from proxy internet use has access to someone in their support networks who would be able to take on this role. Information should be collated about local trusted proxy internet users – including professionals, trained volunteers and community digital champions – so that a range of local service providers can easily signpost this kind of support to people in need of it.

2. Literature review

2.1.Digital exclusion

Digital exclusion entails a limited use or lack of use of the internet for a number of reasons, including a lack of access to consistent internet connections, a lack of access to suitable devices, limited digital literacy, or motivational barriers (Holmes et al., 2022). It is understood to pose a serious disadvantage to those affected, limiting access to a range of services and opportunities (Holmes and Burgess, 2022). As Wilson-Menzfeld et al. (2024) suggest, not being online, or having a limited level of digital inclusion, at a time when many services have moved onto digital platforms has a negative impact on people's ability to accrue capital (both economic and social) and can make people feel disconnected from civic life. Digital exclusion presents a considerable challenge in the UK, with approximately 8.5 million people thought to lack even basic digital skills, and 1.5 million people going without an internet enabled device (Good Things Foundation, 2024a).

Importantly, while vast numbers of people are now online, within the UK and other advanced economies, digital exclusion remains a key issue which disproportionately affects already vulnerable segments of the population, including older people, and those on low incomes (Grošelj et al., 2019). Indeed, poverty has been shown to be a key determinant of risk of digital exclusion, with multiple aspects of the disadvantages of living on a low income coalescing to reduce people's opportunities to get online. As Reddick et al. (2020) demonstrate in a study of broadband access in San Antonio, USA, affordability is itself a multi-faceted factor in digital exclusion extending beyond income itself, with the locations where people live shaping access to affordable broadband options, sometimes due to broadband companies choosing not to operate in lower income neighbourhoods due to perceived lower profit-generating potential in these areas. Further, Holmes and Burgess (2022) show that numerous different aspects of poverty – from housing circumstances which restrict access to broadband, to the mental space consumed by dealing with urgent financial pressures – can act as barriers to getting online.

Further studies highlight age as another crucial factor shaping the likelihood of a person's digital inclusion (Gallistl et al., 2021). The majority of people who are offline in the UK are aged 70+, and where older people are online, they are also more likely than their younger peers to have a narrow use of the internet, performing a smaller range of online activities (Centre for Ageing Better, 2021). And even among older people who have previously had a higher level of digital inclusion, digital disengagement is more likely in this age group owing to decreased levels of motivation to use the internet or due to changing capabilities (Goodman-Deane et al., 2021). Meanwhile other studies show that the intersection of

different characteristics can further shape a person's risk of digital exclusion. The fact that people with disabilities are more likely to face digital exclusion than non-disabled adults (ONS, 2019) has been shown to be due to a failure to deliver inclusive design of digital devices and platforms combined with affordability issues (Allmann, 2022). In the UK 30% of disabled people are in poverty (compared with 20% of non-disabled people) (Schwendel, 2020). Evidently, there are many intersecting factors which contribute to people's varied experiences of digital exclusion.

Digital exclusion takes many forms, from mobile-only use (Correa et al., 2018) and mobile data rationing (Holmes and Burgess, 2022), to a lack of interest in getting online and internet use by proxy. It is these two latter categories of digital exclusion which this literature review takes as its focus. Indeed, recent research by the London Office for Technology and Innovation (LOTI) and Westminster City Council identified those who say the internet is 'not for me', and those who are 'reliant on others' as two key groups which together represent over 50% of the digitally excluded population (Kensington and Chelsea Social Council, n.d.). These segments therefore stand out as demanding further attention. The following sections of this literature review discuss each of these two segments in turn, identifying key characteristics and risk factors for these forms of digital exclusion, as well as highlighting gaps in knowledge. The section on those who are 'reliant on others' also discusses the role and typical characteristics of proxy users.

2.2.Internet non-use: 'Not for me'

In an analysis of Ofcom data for the Good Things Foundation, French et al. (2019) identify four key groups who do not feel motivated to engage in the digital sphere: those who say being online is not for them, those who feel they cannot access the required support, those who view the internet as too complex, and those who cannot afford the costs of using the internet. The 'not for me' group is the largest group identified in this study, representing just over half of all internet non-users, who do not see the point of using the internet and think it has little to offer them (ibid.). A fear of being exposed to online harms is also a crucial factor which also leads people to feel the internet is not for them (ibid.).

Fear of using the internet is prevalent, with many people particularly concerned about online crimes such as financial scams (Brands and van Wilsem, 2021). Those on low incomes who have relatively few resources, and thus may struggle to overcome the consequences of financial crime, are thought to feel more vulnerable to online crime (ibid.).
As Holmes and Burgess (2021) indicate, it is not only fear of crime which can present a barrier to people's digital inclusion, but fear of losing money due to their own mistakes if they are not confident in their skills to complete activities such as online banking. Fears of being online are therefore rooted in people's life experiences, as well as in their levels of confidence online.

In their identification of those who say the internet is 'not for me' as a key segment of the digitally excluded population, LOTI (2021) identify 'lack of interest' as the key barrier to digital inclusion among this group. Over half of the people included in the study sample felt that they would not derive any benefits from being online (ibid.). Research has highlighted that those who have never used the internet differ from those who are former users of the internet in their reasons for not engaging with digital technology, with those who have never been online more likely to cite not being interested or having poor digital skills as the reasons they were not online, compared with cost and access barriers, which are cited as key reasons for disengagement among ex-users (Helsper and Reisdorf, 2013). Yet while a lack of motivation is clearly a crucial barrier to digital inclusion among the 'not for me' group, this cannot be put down to choice alone, as Eynon and Helsper (2011) show that a lack of motivation could be a result of not having had the chance to explore digital technologies before, having had poor learning experiences previously, or due to having low self-belief. Additionally, where people only have access to poor quality internet connections, this can also lead to reduced motivation to use them (Reisdorf and Grosejl, 2017). Choices are therefore embedded in the broader contexts of people's lives, and may be shaped by exclusion (Eynon and Helsper, 2011).

Digital skill levels inevitably have a bearing on the extent to which people recognise the benefits of digital engagement (Holmes and Burgess, 2022), but beyond digital literacy, general literacy is also a critical factor in shaping digital inclusion, given that reading, writing, and comprehension are essential skills for many basic functions of the internet (van Deursen and Helsper, 2015). For this reason, having poor literacy skills is associated with internet non-use, or with a more limited use of the internet (as some online functions require a greater degree of literacy than others) (ibid.), and given that data from 2011 shows that over 7 million adults in England are not functionally literate, and that most adults have a reading age of 11-14 years (NHS, 2020), this represents a clear challenge for digital inclusion. As older age groups are less likely to have high-level literacy skills than their younger counterparts, this may partly explain why age is a key factor in digital exclusion (van Deursen and Helsper, 2015).

Importantly, the study conducted by LOTI (2021) found that those who say the internet is 'not for me' were typically older people, with 86% of study participants being aged 65 years or older. However, as van Deursen and Helsper (2015) assert, there is considerable diversity among older people, and that studies which engage directly with older people to investigate the reasons they give for their internet non-use provide a greater depth of understanding than focusing on socio-demographic factors (such as gender and educational attainment) alone. Some older people, particularly those aged over 75 years, cite their age as the reason for their internet non-use, with the notion that they are 'too old' affecting people's attitude towards technology (ibid.). In a study of the use of technology in housing and care settings, Shojaei et al. (2023) indicate that some research participants felt that learning to use new technologies became more challenging with age, while others lacked confidence, feeling that they were 'not clever enough' to attempt to use digital technologies.

However, age is not the only factor demanding attention here. Research from the Good Things Foundation (French, 2019) highlights that the 'not for me' group are less likely to have been educated to degree level, have fewer children, have less confidence in their literacy skills, and are typically on lower incomes than their peers with a higher level of digital inclusion. Lower educational attainment is thought to lead to lower levels of digital engagement for a few reasons. Firstly, lower levels of education are associated with fewer opportunities to use digital technologies in the workplace (particularly for older people), and secondly, those with higher levels of education often have a more positive attitude when it comes to taking part in learning activities, including learning skills needed for navigating the internet (ibid.).

It is essential to recognise that some people will never want to be online. The notion that everyone should be encouraged to get online, even where they have expressed a desire not

to, raises important ethical questions around choice and agency amidst the digital shift transforming societies. As Wyatt (2003) asserts in a discussion of internet non-use, the assumption that everyone wants to or should become internet users is questionable, as is the notion that "non-use of technology always and necessarily involves inequality and deprivation" (p.68). Where people have made an informed choice to not use the internet, and where this choice has been made alongside existing access to offline resources, not being online has been shown to not be an issue for people, and this group is unlikely to be steered towards internet use (French et al., 2019). However, given that many services (such as banks and GP surgeries) are increasingly restricting face-to-face services, and that those living in rural areas may face particular challenges in travelling to use such services, there is a need to ensure that people's choices around internet use are balanced against this context.

French et al. (ibid.) highlight that among older groups in particular, many people prefer to carry out daily tasks and activities without using the internet (e.g. by going to a bank rather than logging into an online banking system), and that for people who could have access to the internet if they wished but are instead choosing to carry out these tasks offline, this is often not perceived as disadvantageous. It should also be noted that many people value the social interactions involved in going out to carry out daily activities, which may not happen were these activities to take place online, and as such, concerns around social isolation also feed into people's decisions not to use the internet (ibid.). Similarly, Wilson et al. (2021) highlight that while digital technologies can help people to stay in touch with loved ones, perceived 'over-use' of social media can also lead people to feel isolated.

2.3.Internet use by proxy: 'Reliant on others'

Those who are reliant on others to use the internet typically have quite different characteristics than non-users. Age UK (2016) suggests that within the 'reliant on others' group, people aged 16-64 are more likely than those over 65 years old to engage a proxy user. Indeed, in a survey conducted by Ofcom, among people who said they didn't use the internet themselves, 25% of this group aged over 65 years engaged a proxy user, compared with 41% of people aged 16-64 (ibid.). This age-related dimension of proxy-internet use is also supported by findings from Dolničar et al. (2018). Importantly, the Ofcom survey also suggested that income and gender have no bearing on whether a person in either of these age groups uses the internet by proxy (Age UK, 2016). Further research indicates that the cost of getting online is not a key factor shaping proxy internet use (Grošelj, et al., 2019). Meanwhile, other research suggests that women who view the internet positively, and people who have higher levels of education, are more likely to use the internet by proxy (Reisdorf et al., 2020).

Reliance on a proxy, and carrying out internet use on someone else's behalf, may be done for a wide variety of reasons, and affects a broad range of the population, including those with an 'impairment' of some kind which makes getting online difficult (LOTI, 2021), poor literacy skills, people facing health issues, and people who have had only sporadic internet access for whatever reason, such as those in prison (Selwyn et al., 2016). Among this wide array of reasons for using the internet by proxy, poor digital skills are identified as a key factor, but more specifically than this, people with low levels of digital skills who are aware of this limitation on their abilities are more likely to seek proxy internet use (Reisdorf et al., 2020). Where people do not have access to the internet in their immediate surroundings, they are less likely to seek proxy internet use, and it has been suggested that these individuals view getting online as "out of reach" or are unaware of the possibilities offered by proxy use as they are likely to have limited knowledge about the online sphere (Grošelj, et al., 2019).

In a study of proxy internet use in Australia, Selwyn et al. (2016) highlight that people who engage a proxy user to support them with online activities often do have some limited use of the internet themselves, sometimes including smartphones for basic tasks such as sending emails, but rely on others for activities they view as more risky or important. While some participants in the study used a proxy to find information online (such as information about health issues), the majority were engaging a proxy for formal or official communications with various institutions (such as employment services), or for financial activities such as online banking, paying bills or buying things on online platforms (ibid.). This is echoed by findings from LOTI (2021), which indicate that almost half of those surveyed who were 'reliant on others' were interested in improving their basic digital skills, but did not want to learn how to

do more 'advanced' online activities such as managing their finances online. Selwyn et al. (2016) show that for some people who were using the internet on another person's behalf, this is for convenience purposes where the person acting as a proxy user finds it easier to manage bills or financial transactions online rather than handling these affairs in person or via the post or telephone.

Using the internet by proxy presents a number of challenges. While many people who rely on others to access online opportunities are content with this arrangement, others report feeling that there is a stigma attached to doing so, thought to be associated with some people's negative perceptions of asking for help (Grošelj et al., 2019). And irrespective of how people feel about being a user by proxy, similarly to internet non-users, those who rely on a proxy user to get online may unaware of online activities which they could find enjoyable, as they have often not had the opportunity to explore the internet, and therefore may not feel motivated to increase their level of digital exclusion (Holmes and Burgess, 2022). Crucially, rather than simply taking instruction from the person relying on them on what activities to complete online, proxies guide the person on whose behalf they are accessing the internet towards and away from particular uses of the internet according to what they themselves are comfortable with, which can further restrict people's awareness of the opportunities available online (Selwyn et al., 2016).

Additionally, changes in the proxy-user relationship can render a person vulnerable to worsened levels of digital exclusion, if the person previously relied upon to provide access to online opportunities is no longer able to do so for whatever reason (Holmes and Burgess, 2022). It is not only those who are reliant on others for internet access that face challenges from proxy use, but also the proxy users themselves. Selwyn et al. (2016) highlight that proxy use raises potential legal issues around using another person's details for official purposes, and liability concerns around dealing with another person's financial affairs.

While using the internet by proxy can be empowering for some, enabling them to get online where this would otherwise not be possible for them, this is not always the case. For some, having someone else carry out important tasks online on their behalf, including online banking, can result in a loss of control, particularly where the proxy user does not share detailed information on their online activities with the person on whose behalf they are completing these activities (Holmes and Burgess, 2022). As Selwyn et al. (2016) note, proxy users of the internet often do online activities on someone's behalf without their involvement, and therefore often do not support that person to develop their own skills and confidence (see also Reisdorf et al., 2020). In addition, internet use by proxy is inevitably a process which is mediated through the relationship between the two individuals involved – which may not always be harmonious – and when relying on another person for internet

access, this access must take place at a time convenient for both parties and squeezed in around other daily commitments in both people's lives (Selwyn et al., 2005). People using the internet by proxy therefore do not have the benefit of 'on demand' information or opportunities in the same way as their peers who are using the internet on their own behalf.

There is also a need to understand who the proxy users who are relied upon for carrying out online activities are, and what form proxy-user relationships take. Noting that there is still further research needed on who proxy users are, Reisdorf et al. (2020) indicate that in a study of internet users in Solvenia, people who use the internet for 'economic uses' (including online banking, making online purchases and using online services) were 4.8 times more likely to be engaged as a proxy user, while those who use the internet for personal uses (such as playing games, consuming visual media or listening to music, and seeking health-related information) were 4 times more likely to be engaged as a proxy user than those who do not use the internet for such activities. Higher skill levels are therefore a common characteristic among proxy users to support others in their online activities.

While younger people are more likely to engage a proxy (Age UK, 2016), research nonetheless indicates that family relationships (particularly parent-child and grandparent-grandchild relationships) are often those mobilised for proxy-internet use (Grošelj et al., 2022), and people who have children are more likely to engage a proxy user than those who do not (Dolničar et al., 2018). Additionally, LOTI (2021) found that of people surveyed, around one fifth of people in the 'reliant on others' segment lived with children. Those who access the internet on behalf of others often believe their own digital skills to be relatively good, and are more likely to be educated to a higher level (Reisdorf et al., 2020). This means that people who lack social ties with people from an educated background could face challenges finding someone to act as a proxy on their behalf (ibid.). Often, the people who use the internet on someone else's behalf are doing so out of a sense of duty to that person, either because of a family relationship or a professional obligation (in the case of care or support workers, for instance), and typically do not see this as a major task, given most people acting as a proxy internet user for another person do so periodically (Selwyn et al., 2016). However, while Selwyn et al. (ibid.) highlight that affordability and their own skill levels are not typically crucial concerns for proxy users, some felt that proxy use placed pressure on their limited time.

2.4.Key gaps in understanding

While existing literature provides important insights into various characteristics of those who feel the internet is not for them or who are reliant on others to use the internet on their behalf, there remains much that is not yet known about how these groups experience digital exclusion. Some of the key areas which demand attention, both within this report and beyond, are set out here. With regards to those who say they internet is 'not for me', as Reisdorf and Groselj (2015) assert, there is a need for further research to unpack exactly why internet non-users have negative views towards the internet, with both the contexts of their lives and the spaces in which they live as well as socio-economic factors taken into account. Further insights into why people feel the internet will not be beneficial to them, their attitudes towards developing new digital skills, and how (or whether) they perceive the impacts of digital exclusion on their lives, would be helpful in strengthening understandings of this group.

As for the 'reliant on others' group, there are several aspects of this under-researched category of digital exclusion which demand attention. It is clear that there remains a lack of qualitative studies examining how exactly people experience proxy internet use. How people decide which activities to engage a proxy user for, the extent to which those who are reliant on others are involved in decisions around the online activities carried out on their behalf, and the extent to which people's use of a proxy meets their online needs are all important considerations which demand attention. Also of importance is the extent to which people who rely on others for internet use feel empowered or otherwise by these interactions.

Additionally, as Reisdorf et al. (2020) make clear, a focus on the experiences of the people using the internet on behalf of others is needed, and as part of this, improved understandings of those who provide this service as part of their professional duties would also help to address gaps in knowledge. There is currently little peer reviewed literature addressing the experiences of proxy users (acting in either a personal or professional capacity). Further research into how and why people become proxy users, how proxy internet use is mediated by interpersonal relationships, and the benefits and disadvantages of proxy internet use for the proxy user themselves is therefore warranted. The following sections of this report address some of these questions, while highlighting the ways in which various forms of limited internet use can be understood.

3. Methodology

This study used a qualitative methodology in order to provide insights into the reasons why people may have a limited use of the internet. Semi-structured interviews and a focus group were selected as appropriate methods, which enabled discussions with people experiencing digital exclusion and supporting others to improve their levels of digital inclusion, and provided an opportunity to gain deep insights into these experiences and their embeddedness in the contexts of people's lives.

Interview participants were contacted via a range of professionals with links to communities in Cambridgeshire and Peterborough, as well as via flyers in libraries across the area. Participants were provided with information about the research and given a choice of participating in the research via telephone or in person. All interviews took place remotely, with all participants happy to take part either on the phone, or in the case of some proxy-users, via a video call. In order to reach a wide range of the locations and socio-economic groups served by Connecting Cambridgeshire, the research sought to capture views of research participants from across different places in the area (i.e. in Cambridge city, Peterborough, and a range of rural Cambridgeshire locations). The professional contacts who put research participants in touch with CCHPR for the research assisted in ensuring various parts of the local area were represented in the study.

A total of 27 interviews were carried out with these groups, including 13 proxy users, and 14 individuals who have a limited use of the internet, either in the reliant on others, or not for me categories, or some combination of these. A focus group with 9 people who feel the internet is 'not for them' was held in person at a seniors club in Cambridgeshire, providing further insight into the experiences of those with limited internet use. Here, a summary of key information about the 27 interview participants is set out:

Interview	Pseudonym	Age	Category	Location	Key Information
A	Rita	80	Reliant on others periodically, though does use the internet herself	Cambridge	Has a wide use of the internet, and feels 'pretty confident' online, though feels it has become too complicated. Uses a trusted proxy for support with specific IT challenges.
B	Ellen	81	Not for me, though has begun using the internet	Cambridge	Has a strong dislike of the internet, but has begun using it to a limited extent, having felt left behind by the increasing digitalisation of many aspects of life.

C	Andy	X	Proxy user (voluntary capacity)	Village in Cambridgeshire	Volunteers at a library supporting people with limited digital skills to apply for bus passes online.
D	Mary	81	Reliant on others	Ely	Has a disability, and her live-in carer uses the internet on her behalf. She used to use the internet herself, until her computer stopped working.
E	Brandon	59	Proxy user (professional capacity)	Ely	Is a live-in carer for Mary, and uses the internet on her behalf, using his own device and keeping track of her password for her email account.
F	Bill	>65	Proxy user (voluntary capacity)	Village in Cambridgeshire	Is a 'digital buddy' at his local library, having previously had a professional role in the IT sector.
G	Angela	85	Not for me	Peterborough	Used to use a computer, but struggles to do so now due to her computer not being adapted to her health issues. Would like to use the internet more if she could get her computer set up to meet her needs.
H	Lauren	Late 50s	Proxy user (professional capacity)	Village in Cambridgeshire	Works with older people, providing social support for people at home, including shopping, picking up prescriptions, helping to arrange health appointments, etc. Regularly looks up information online for clients.
I	Max	74	Proxy user (voluntary capacity)	Town in Cambridgeshire	Runs a computer club, which is well attended, particularly by older people. Feels confident using the internet, and feels that digital exclusion is contributing to social isolation among some of the older people who attend his club.
J	Iona	74	Not for me/reliant on others/proxy user	Village in Cambridgeshire	Strongly dislikes using the internet, finding it very stressful, but concedes that it is nonetheless important for her to do so. Relies on others for some online tasks, such as filling in online forms, and also carries out some online tasks on behalf of her partner, who will not use the internet at all.
K	Angela	75	Proxy user (personal capacity)	March	Uses the internet on behalf of her husband, who used to use IT for work, but now has a lack of confidence due to changes in technologies. Sometimes finds it frustrating acting as a proxy user, due to issues managing accounts.

L	Lyle	70	Proxy user (personal capacity)	March	Describes his digital skills as 'pretty good'. He and his wife take responsibility for different areas of their lives, and he doesn't know how to bank online as his wife does this, while he will do online shopping on her behalf. Regularly warns less digitally savvy friends about the latest online scams to be wary of.
M	Stacey	58	Not for me/reliant on others/proxy user (personal capacity)	Peterborough	Has no smartphone, which causes challenges. Does have an old laptop, and will sometimes use this to sign a friend who has no access to the internet up for things. Regularly asks her adult children for help with using the internet. Says she feels confident with the things that she does use the internet for.
N	Julie	74	Proxy user (personal capacity)	Cambridge	Uses the internet on behalf of a friend with health issues who is 'totally internet resistant', as well as for others who need help with bus passes. Julie does this as a means of social connection and to avoid isolation following a bereavement, as well as to help others.
O	Amanda	50	Not for me/reliant on others	Peterborough	Does not use the internet at all, and relies on a friend to do some tasks when necessary. Has previously tried to learn to use computers, but her mental health has prevented her from doing so.
P	Sid	X	Proxy user (professional)	Cambridgeshire (urban and rural)	Provides one to one digital support for people who need it. Notes that age, poverty, and social isolation are key factors which cause people to need his assistance.
Q	Penelope	X	Proxy user (professional)	Cambridge	Works for a digital inclusion charity, providing digital skills support as well as access to devices. Provides both one-to-one and group support. Notes that many people feel forced to use the internet because of a shift towards digital technologies in society.
R	Anthony	>65	Proxy user (voluntary capacity)	Village in Cambridgeshire	Is a 'digital buddy' at his local library. Typically supports older people with digital skills, who often lack confidence or fear scams and making mistakes with their digital devices.

S	Vincent	62	Proxy user (personal capacity)	Cambridge	Uses the internet on behalf of his elderly father, whose memory has deteriorated. He does this when he visits twice a week. His father does use the internet himself to some extent, and was once very digitally savvy, but often gets confused about passwords, and struggles with unfamiliar websites.
T	Frank	55	Not for me, though does use the internet for some activities	Cambridge	Struggles with digital skills, as well as with literacy more broadly, which makes navigating webpages difficult. Rarely leaves home due to poor health, and struggles to make ends meet. Does use the internet for some things, such as online banking and communicating with friends.
U	Lorraine	75	Reliant on others, and avoids some online activities, while she does use the internet	March	Uses the internet for some activities, but is wary of scams, and feels that it is sometimes more complicated than it should be. Used to use IT for work, so is confident with some activities. Relies on daughter for help when she encounters issues with using digital devices.
V	Justine	65	Not for me/reliant on others	Cambridge	Has very limited digital skills, and finds trying to use the internet frustrating and frightening. Does not feel she is missing out by not being online. Relies on someone else for essential online tasks, such as filling in online forms for her benefits.
W	Helen	74	Not for me/reliant on others	March	Does use the internet to some extent, but is fearful of making mistakes or falling victim to a scam, and is concerned about services such as GPs increasingly moving online. Relies on relatives to help her when she gets stuck with using a computer, and sticks to familiar websites, including online banking. Has tried digital skills courses, but cannot remember these skills now, which makes her feel 'stupid'.
X	Sharon	40	Not for me/reliant on others	Cambridge	Is currently on a college course, which she does in person, as she has poor digital skills and struggles with online learning. Only uses the internet when she 'has to', such as for banking on her phone, or research for her course. She finds it difficult, and has limited

					patience with it. Asks her wife if she needs to do something online she is not familiar with.
Y	Vanessa	67	Proxy user (personal capacity)	Cambridge	Uses the internet on behalf of an older acquaintance who asked for her help with digital activities. Often uses the internet from the library. The man she uses the internet on behalf of is fearful of cyber crime, but is happy to use the internet himself so long as she is next to him to offer support.
Z	Harvey	59	Not for me/reliant on others	Village in Cambridgeshire	Has a smartphone but only uses it for phone calls and text messages. Does not use the internet, and lacks digital skills, which creates problems for trying to find work. Tried a digital skills class, but stopped going after the teacher left. Feels disadvantaged by not having access to the internet. Occasionally asks a neighbour to look up information for him.
AB	Jenny	X	Not for me/proxy user/reliant on others	March	Previously very confident with the internet, and used to help others with digital skills. Feels that embarrassment of not being able to use the internet is a barrier to improving digital inclusion for some people. Has had to relearn to use the internet following memory issues. Is now wary of the internet, and struggles with some tasks if there is no one around to help.

The interviews and focus group were transcribed with permission from participants, and analysed in view of the themes highlighted in the literature review. Participants were provided with a £20 voucher to thank them for their time.

A stakeholder workshop was held in February 2025 with a range of policy and practice professionals whose work is related to digital inclusion. At this workshop, the findings of the research were discussed, and feedback from attendees was incorporated into the recommendations presented in section 6 of this report. Following the workshop, a bank of personas – which highlight the varied experiences of digital exclusion among limited internet users, without being based on any individual research participant – was developed in order to provide a resource for policymakers. These personas were developed by devising examples of the kinds of experiences which were apparent in the research findings.

4. Findings

4.1. Categorising limited internet users

This research took as a starting point the characterisation of two segments of the digitally excluded population, as articulated by LOTI (2021); those who say getting online is 'not for me', and those who are 'reliant on others' to use the internet on their behalf. This study with limited internet users across Cambridgeshire and Peterborough demonstrates that, while useful for delineating distinct forms of digital exclusion, these two categories are by no means mutually exclusive. There is a lack of a clear distinction between those who say the internet is 'not for me' and those who are 'reliant on others', and there is variation in the extent to which people who might consider themselves to be in these categories are digitally excluded: In this research, several people who said the internet was 'not for me' – a category of digital exclusion understood in existing literature to be made up of internet non-users (LOTI, 2021) – did nonetheless use the internet in some way, even if they did not like doing so or had a limited use. Further, several of these individuals who had some use of the internet despite feeling it was 'not for me', also relied on a more confident proxy user for some online activities. It was also evident that some people who themselves have a limited use of the internet and may rely on others in this way also themselves may access the internet on behalf of others who are less inclined to use the internet than they themselves are, thus being both 'reliant on others' and 'proxy users' simultaneously.

As the table in section 3 highlights, few research participants could be meaningfully categorised as 'reliant on others' or as feeling that the internet is 'not for me' in isolation. For example, Ellen, who took part in the research on the basis that she felt the internet is 'not for me', states she "hates" the internet and describes it as a "horrible thing", yet does rely on a professional proxy user for some online activities, and notes that if some of the activities of her daily life were to move to an online platform, it would be this professional proxy which she would rely on for support:

> *[If energy billing moved online], I would have to have help to make sure I did it properly... I would have to ask someone to come and show me... It would be a professional. There's a man who comes and does things to our computer.* - Ellen

Notably, Ellen has been receiving digital skills support at a local group, and so, despite her reticence, does have some limited use of the internet herself. It is clear that some people who feel the internet is not for them do nonetheless use the internet to some extent, and holding negative views towards the internet does not necessarily result in internet non-use.

Evidence shows that digital exclusion is not a clear-cut issue of inclusion versus exclusion, but instead exists on a continuum (Livingstone and Helsper, 2007). The research revealed that some people who themselves have low levels of digital inclusion, and who may rely on a proxy user, at the same time sometimes also act as a proxy user on behalf of a friend or relative whose digital inclusion levels are lower than their own. For example, Stacey has limited digital skills, does not have a smartphone, and relies on her adult children to support her with online activities, stating that they will help with specific issues she encounters with digital technology. However, at the same time, Stacey acts as a proxy user on behalf of a friend who has no internet access whatsoever, carrying out tasks such as registering her friend to confirm her attendance at local events:

> *I said to her 'don't worry, I can sign you up because I've got my laptop at home. When I get home, I'll sign you up'*. – Stacey

Another challenge for assessing which forms of digital exclusion people may face lies in understanding how people self-report their levels of internet use. At the start of the focus group held with older people, only two of the nine participants initially said that they used the internet. However, over the course of the conversation it became clear that while many people present found using computers or smartphones difficult or confusing, the majority did in fact use the internet to some degree. This included limited uses which people felt comfortable with, such as checking social media, and taking online video calls from family members. Therefore, even where people perceive themselves to be internet non-users, this does not necessarily mean that they have no engagement with digital technologies whatsoever.

It is evident, then, that while the 'not for me' and 'reliant on others' categorisations provide some insight into the different forms digital exclusion can take, there is such variation in people's experiences of digital exclusion that neat categorisations do not fully capture the diverse ways in which digital exclusion manifests across different contexts. Persona 1, in section 5 of this report, provides an example of this.

4.2. Factors shaping digital exclusion among limited internet users

As highlighted in section 2.1, existing literature highlights a number of factors which contribute to a person's likelihood of facing digital exclusion. Here, a range of specific factors identified in this research as presenting barriers to limited internet users' digital inclusion are set out.

4.2.1. Social exclusion

As previously discussed, age is a key contributing factor to digital exclusion (Gallistl et al., 2021), and observations made by several proxy users echoed this understanding. Social exclusion was also highlighted by several proxy users as a key issue affecting the people they support to get online:

> *People who are isolated as well [are more likely to be digitally excluded], because a lot of people have a relative, friend, grandson, son, daughter, whoever who might be able to help them. But some people don't. And so I'm guess I'm filling in for that [lack of support network by using the internet for people in my professional role].* – Sid

Here, Sid emphasises the importance of social networks in supporting a person's digital inclusion. Where people lack a relative or friend who could provide some level of support, this can leave people more digitally excluded than they might otherwise have been, and professional digital support – such as that provided by Sid – may then be someone's only option if they need or want to carry out an online activity.

At the same time, another proxy user expressed concern that not being online further compounds social isolation as services increasingly move online, and in-person facilities such as banks become more difficult to access in person:

> *There's a lot of people who are becoming more socially isolated simply because they've got no link to computers and the internet, because every single thing is done on the internet, and the offline [alternatives] are just not there* – Max

As Godfrey and Johnson (2009) attest, given the increased importance of digital media for access to information and for engagement in society, digital exclusion is understood to further entrench social exclusion.

4.2.2. Embarrassment

Feelings of embarrassment or of feeling that others may incorrectly perceive them as 'stupid' as a result of not having strong digital skills were also highlighted, both by proxy users and by limited internet users who took part in this research, as presenting a barrier to improving people's levels of digital inclusion. As one proxy user highlighted, this sense of embarrassment around skill levels can put people off seeking support:

> *I wonder if people in this world wide web world may feel a bit of embarrassment in coming in and saying 'I don't know how to access'. I just wonder whether that would be a factor [that puts people off seeking support]. A general embarrassment of lots of people being able to do it, and them not being able to do it. So they steer away from it.* – Bill

Persona 6 in section 5 of this report further illustrates this point. Likewise, Jenny, who use to run a class for people who wanted to improve their digital skills, noted that embarrassment prevented some people from attending the class:

> *We had a big problem with some of the younger Mums, who would tell us in private that they really needed to come along [to the class]. They really needed to learn. But they were so embarrassed, and they felt everyone around them expected them to know how to use the internet and how to access these services* – Jenny

Similarly, another interview participant who supports others in her social circle to use digital devices felt that people came to her for this kind of support specifically because she did not make them feel "stupid":

> *Last year I actually assisted in bus passes to the extent I actually did all the internet bits for 12 bus passes… And I've asked once or twice why they asked me, and it's because I don't make them feel stupid about it.* – Julie

This echoes findings from a study of digital exclusion among people with mental illness conducted by Middle and Welch (2022), which noted that not being able to use the internet could have a stigmatising effect on those experiencing digital exclusion. The ubiquity of digital services and the widespread assumption that most people are able to engage with the internet can entrench this stigma among those who do not fulfil these expectations on account of being digitally excluded.

4.2.3. Health challenges

Health issues were repeatedly raised as a factor in people's digital exclusion during interviews and the focus group. Individuals' health plays a role in shaping digital exclusion in various ways. Some interview participants highlighted issues with dexterity, eyesight, and memory, which could all constitute barriers to using some kinds of digital devices. One interview participant highlighted that her laptop was not set up in a way which met her needs, and as such, she was only able to get limited use from it:

> *I would do a lot more if my f***ing computer worked. I've got a laptop, but because of my vision, the keyboard and the screen are the wrong distance from each other. And while I've got a separate keyboard… I've been trying to get it attached to my computer screen… It's been 5 years [since I started trying to do this]… and I've still not got it set up… I'm digitally literate if I have the computer working, but at the moment, because of the lack of the keyboard and screen, because of my sight, it isn't happening.* – Angela

As is evident from this quote from Angela, not having a computer setup which meets people's individual health needs can cause frustration. This is particularly the case since Angela describes herself as digitally literate, and would like to use the internet a lot more than she is currently able to. Indeed, because she is unable to get much use from her laptop, Angela instead relies largely on a smartphone, which again is not suitable for her needs:

> *I have a smartphone but I have 'fat finger syndrome'. My fingers are too fat for the tiny numbers. So while I can type, it comes out gobbledygook. And the screen is too sensitive, so it picks up as you go over a number, rather than when you touch it.* – Angela

Being 'digitally literate' therefore does not necessarily mean that a person will be able to use any device effectively. Rather, devices must be appropriately suited to people's health needs. Further, given that people's health needs change over time, this can also have an effect on people's ability to use digital devices and the internet (see persona 5 in section 5 of this report for an illustration of this). As one proxy user highlighted, his father, who he uses the internet on behalf of, previously had strong digital skills, but his memory has begun to deteriorate in his nineties, and this means that he now needs help with certain online activities:

> *My father was a whiz on spreadsheets, would do presentations all over the world… You get to the age of 92 and you get confused. And once your memory starts going, you know the online environment is not a user*

> *friendly environment if you can't remember your password or if you get confused by new ways that websites work.* – Vincent

Existing literature highlights that digital exclusion can itself have an impact on access to health care, particularly in light of a recent trend towards offering remote medical appointments, as people who have low levels of digital literacy are less likely to find this form of medical care satisfactory (see Hider et al., 2023). As such, while health issues can be a key factor causing digital exclusion, digital exclusion can also exacerbate health inequalities.

4.2.4. A lack of interest

While the effects of digital exclusion on people's ability to participate in society, and on a host of other aspects of life, such as finding work, saving money on essential expenditure, and communication with others, is by now well documented (see Holmes and Burgess, 2022), it is notable that several people who participated in this study were not interested in improving their levels of digital inclusion.

Some focus group participants, all of whom were older people, highlighted that they had managed without a wide use of the internet for their whole lives, and did not feel disadvantaged by this. On the contrary, some people contest the notion that not engaging with digital technologies is disadvantageous by highlighting their skills in managing without the internet, and by pointing to the notion that those who are "dependent" on these technologies are in fact disadvantaged by this:

> *I feel that they are disadvantaged, because they have no idea. If their computer breaks down, they've absolutely had it. Seriously, they don't know what they're doing. They're so dependent on their computer, or their telephone thing or google, they can't think or look things up manually themselves.* - Angela

As one proxy user indicates, among people who rely on others to use the internet on their behalf, there are a multitude of reasons why someone who currently has a very limited use of the internet may not be interested in changing this:

> *The people that I work with, most of them wouldn't be interested [in using the internet more]. Many of them have mobility issues, so if they didn't have a device at home which someone could show them how to use, they wouldn't want to go anywhere else, to libraries or wherever... Most of the people that I know probably wouldn't be bothered. They're mostly mid to late 80s... I think*

> *honestly, they just think 'I can get someone else to do it for me'. And that's ok, because all they really want is a bit of information.* – Lauren

The people Lauren acts as a proxy internet user on behalf of, then, do not tend to feel a need to move towards a greater level of digital inclusion, as they have only a limited interest in the opportunities available online, and their digital needs are already met through Lauren. At the same time, the potential challenges associated with receiving digital skills support – including travelling to a location where this kind of support is available – presents a barrier large enough to prevent some people from considering this. The Good Things Foundation (2024a) notes that 14% of people who are not online cite not being interested as the reason for this. While addressing digital exclusion is widely acknowledged as a pressing issue, it is also important to acknowledge that some people do not want to be digitally included, and do not necessarily see their digital exclusion as a problem.

4.3. Agency and choice in a digital world

Importantly, while it is clear that not everyone wants to be online (see Section 4.2.4), several people who participated in the research indicated that they felt their online participation had been forced upon them against their will. This sense of having no choice around whether to use the internet can be distressing for individuals who feel they must use the internet or risk being left behind:

> *I hate [the internet], but I've made myself do certain things, because I'm finding that the pressure on you [to use the internet] is more and more and more and more, and every day it gets worse. You're pushed into something that you don't want to do… I was in quite a state over all this, it was getting me to tears, and I was thinking 'well what am I going to do?' because I'm going to be surrounded by people with this horrible thing [the internet], and I'm going to be completely left behind… And I'm very anti-[internet]. But you've got to move with the times, however much you hate it.* – Ellen

Ellen strongly dislikes using the internet, yet at the same time, the shifts towards digital services within society, and her perception that she would be left behind if she did not begin to use it, have meant that she feels her choice has been taken away from her. After feeling "despair" over not being able to use the internet Ellen has begun to take some classes in digital skills provided by a local charity, which has improved her confidence with digital technologies. This, she says, has made her feel more connected to society:

> *It's made me feel part of the world again. It's as serious as that... As older people, it's a whole way of life that's been taken from underneath our feet.* – Ellen

While learning to use the internet to a limited extent has clearly had a positive impact for Ellen, she maintains that she is "just so anxious about the whole thing". This appears to be a choice she has made in the absence of what she saw as a viable alternative. As Penelope, a proxy internet user, highlights, this sense of feeling forced to use the internet is common among limited internet users, who may feel a sense of "resentment" as a result of there being "no choice". This lack of choice is lamented by Stacey, who has a limited use of the internet and relies on her adult children for digital support:

> *[This increased emphasis on using the internet] seems to be one directional, like we have to go to these hubs to use the Internet. We've got to learn how to use the Internet. We've got to go that direction. But there's nothing coming back the other way… There's no, there's no movement the other way saying,*

> *'well, if you can't do it, then we'll allow you to do it the old way. We'll offer an alternative'*. – Stacey

As Stacey indicates, the lack of alternative means of service provision for those who cannot or do not wish to engage with digital services is a source of frustration for many people who are digitally excluded. And as Faure et al. (2020) note, even where non-digital alternatives to accessing particular services or activities are available – such as handing out printed copies of CVs rather than using an online job search platform – these are often nonetheless disadvantageous, and do not always provide like-for-like outcomes. Research participants gave examples of being unable to sign up to attend a public event due to not having an email address, or of not being able to check scheduled bus times due to not being able to scan a QR code, highlighting some of the ways in which people who cannot access the internet for whatever reason are excluded from public life (see persona 3 in section 5 of this report for an example of this). It is such that some participants, such as Iona, feel compelled to use the internet, despite finding it "maddening", and lamenting that "it sends me into hysterics on a regular basis, so I hate it".:

> *You can't even go to a bus stop and find out when the next bus is without scanning a QR code… I find it very, very stressful, but of course, I couldn't live without it.* – Iona

This lack of an easy alternative to using the internet places the onus on individuals to acquire the skills and material connectivity needed to engage with digital services. As Syvertsen (2020) asserts, this notion that individuals ought to be responsible for getting themselves to a point where they are able to fully participate online is part of a broader shift towards individual responsibilisation. Important questions are therefore raised here around why an assumption is made in favour of digital services, and in favour of encouraging people to improve their digital literacy and connectivity to be able to take advantage of these services, as opposed to providing viable alternatives.

4.4. The precarity of digital inclusion

Existing literature makes clear that people's levels of digital inclusion are not fixed (Yates, 2020). As already highlighted in section 4.2.3, changes to people's health can cause their level of digital inclusion to change over time. Two further reasons which explain the precarity of digital inclusion were raised in interviews; namely, the pace of technological change, and changes to relationships.

4.4.1. The pace of technological change and continuity

As has been documented elsewhere, the rapid pace of technological change can lead people to feel left behind if they do not feel able to keep up with these changes (Marshall et al., 2020). This is supported by evidence from the interviews conducted for this study, which suggests that for some people, confidence with using digital devices can decline over time. Some proxy users highlighted that some of the people they support are currently unable to use the internet with any confidence despite once having been highly familiar with digital technologies in an office environment:

> *[People tell me] 'I used to use this software for my particular company and got on really, really well with it' and I have no doubt that they did, but since retiring, not needing to use that software, now suddenly the online world is very, very different… And the world has changed massively and I think that can be really, really hard for people.* – Penelope

Another proxy user noted that a friend she used the internet on behalf of was now "completely internet resistant" after having retired from an office job, where she had access to a dedicated IT team to support with any issues she encountered with using digital technologies. No longer having access to a readily available IT support team having left the workplace, alongside rapid changes in both software and devices, can therefore mean that people can feel left behind, with some participants lamenting that the "it keeps getting more complicated". Continual updates to webpages and automatic software updates on devices can lead to confusion and frustration. As Angela makes clear, when people with a limited use of the internet and digital devices are familiar with the steps needed to progress through a specific task, small changes made during updates can present a challenge:

> *They update things so often, and each time it's slightly different. So they actually make things more difficult rather than simpler. And I thought technology was supposed to make things easier… Literally from one screen to another. So what used to be 'contacts', on my front screen, I now have to press*

> *'telephone' to access 'contacts'. But I've managed to get it switched, so it's back to how it was, thank God.* - Angela

Of course, levels of digital inclusion can also improve over time owing to digital skills support. However, receiving this kind of support does not necessarily guard against digital inclusion levels declining at a later date. Some participants reported having tried digital skills training courses, only to later have their confidence knocked (either due to their own personal circumstances, due to a negative experience online, or due to experiences of the course itself), resulting in them further narrowing their use of the internet:

> *The Job Centre did put me in touch with people that said they could train you how to use the computer… I went there for a month, two days a week. And this lady was helping me with the computer. She explained everything. But after a month, she left… [It set me back] because the other people [who replaced her] didn't know how far we'd got along, so I didn't bother going anymore.* – Harvey

As is evident from this quote from Harvey, a lack of continuity in digital skills support can prevent people from continuing to move towards an improved level of digital inclusion. As Harvey has found, in many cases, attending a course as a one-off will not be sufficient, particularly in light of the fact that technologies themselves are continuously changing, requiring continuous learning.

4.4.2. Changes in relationships

Some participants highlighted that within close relationships, people may routinely take responsibility for different online tasks, so that one person in a household deals with online shopping and another manages online bank accounts, for example. In these situations, while people may feel confident with the tasks they regularly perform online, there may be gaps in people's digital skills and capabilities. This is highlighted by persona 7 in section 5 of this report. For example, Lyle describes his digital skills as "pretty good", and occasionally uses the internet on behalf of his wife, and for friends and acquaintances. However, he notes that there are certain online activities which his wife takes responsibility for, and which he therefore has had no need to do himself:

> *[My wife] knows how to do the internet banking. I haven't got a scooby doo.* - Lyle

In cases such as these, changes in relationships, can have serious effects on individuals' digital inclusion. One professional proxy user highlighted that recently widowed individuals

who have previously relied on a partner to carry out certain online activities often need support to be able to manage these digital tasks on their own:

> *I'm working with several widows at the moment. Who said 'my husband, my partner, used to do all this stuff. Suddenly I'm having to do it and I have no idea what I'm doing… That was just kind of his role in our relationship and now I'm having to take it all on'.* – Penelope

This resonates with existing literature, which highlights that bereavement can cause someone's level of digital inclusion to suddenly worsen, particularly where the person who has died previously took on a range of specific digital activities on behalf of the household (Faure et al., 2020). Persona 4 in section 5 of this report provides an illustration of this issue. One proxy user who uses the internet on behalf of her husband expressed concern about this:

> *At the moment [my husband pays utility bills over the phone]. But one day they will go online… [My husband] hates the whole idea [of paying online] so I don't know how we're going to do it. Not because he's horribly awkward, he's a lovely person, and he's very, very bright. But he doesn't want to know about it. But one day, if I'm not here, he's going to have to know. I've said to him, 'you've got to know, because if I'm not about, then what are you going to do?'.*
> – Ellen

Again, Ellen's insistence that her husband will "have to" know how to pay bills online is reflective of the lack of perceived choice and agency when it comes to accessing digital services (see section 4.3). Importantly, the question posed by Ellen (if I'm not about, then what are you going to do?) is reflected in interviews with several participants, who were not sure how they would manage were their proxy user not available to help, or if they were not available to help the person they acted as a proxy on behalf of. The limited level of digital inclusion offered by proxy use, while valuable for those reliant upon it, is therefore tenuous.

4.5. Devices, information management, and the complexity of digital inclusion

The type of device which people use to access the internet makes a difference to their experience of digital exclusion (Holmes and Burgess, 2022). Many people are reliant only on smartphones, and do not have access to other kinds of devices, which can create challenges for accessing some online opportunities. As one proxy user noted, the screen of a smartphone may be too small to effectively navigate a webpage, and some websites may not be optimised for mobile use:

> *Some people only have a phone. Smartphones are really, really handy, but trying to fill in a hole on a phone when the screen is so small is actually really, really challenging. There are some websites that, although yes, in theory you can use them on a phone, actually they're hopeless. And they're really not very compatible at all… It probably is too fiddly and too difficult trying to do it on a phone, but when given a laptop, given that bigger screen and that opportunity that frankly they can see what they're doing* - Penelope

In the same vein, those who use only a laptop, and do not have a smartphone, face similar challenges of being unable to access certain opportunities:

> *The fact I haven't got a smartphone causes problems for me… I can't really afford to have a smartphone and my fingers don't seem to work on it… So I get very frustrated with this… Everywhere I go at the moment, my pet peeve is I'm asked to scan a QR code. And I get very annoyed.* – Stacey

Evidently, different types of devices are needed to secure optimal outcomes from different kinds of digital activities. Not having access to a smartphone, for instance, can mean that a person is unable to scan a QR code and therefore cannot easily download a bus timetable, or pay for parking, while only having a smartphone can mean that people will struggle to fill in online forms for various different purposes. Meanwhile, to be able to operate an array of devices both within and outside the home, people may rely on data and broadband packages, or may need to connect to public wi-fi networks, depending on their location and needs. It is such that a Minimum Digital Living Standard developed by Yates et al. (2024) – which considers what digital devices, services and digital skills are needed by households with children to enable full participation in digital life – includes a smartphone and a larger screen device, as well as broadband and data, as basic requirements for meeting the standard. There is therefore a high level of infrastructural requirements for being considered digitally included, which can make achieving this complicated for people who may not feel

confident with using digital technologies, and can also present a barrier in terms of the costs of obtaining this range of devices and digital services.

Maintaining digital inclusion also requires ongoing maintenance of devices, including software updates and hardware repairs (and again, being able to carry out maintenance is identified as one aspect of meeting the Minimum Digital Living Standard (Yates et al., 2024)). This can present a problem for people who do not have the skills and confidence to do this effectively, and can, in some cases, cause people to stop using the internet altogether. As Mary, who relies on a proxy internet user, highlights, she has not used her computer since repairs became necessary:

> *[I stopped using the internet] because my computer wanted repairing* - Mary

Further, beyond the materiality of connectivity, several participants highlighted the difficulties they found with managing the wide range of passwords and login details which they need for carrying out basic online activities. Even when using online password management software, this can present an issue:

> *Something that's driven me nuts is I seem to have 4 password keepers. So when I reset a password, I never know which one I'm resetting it to. So when I want a password, I never know which is the latest one… I just had to reset my password whenever I logged in anywhere. I've now bought a password book and every time I reset a password I write it in there, but then that makes me nervous as well... The rule is not to take it out of the house, but sometimes I have to.* – Iona

Other participants highlighted that they found managing passwords "a nightmare", or noted that this element of engaging with digital technology takes a lot of "time, effort and memory". There therefore emerges a complex landscape of connectivity, which can be difficult to navigate, leading some people to feel that moving towards digital inclusion is "too complicated".

4.6. Online safety and security

Being able to use the internet in a safe way is identified by the Good Things Foundation (2024b) as a key aspect of digital inclusion. Safety online is a prominent issue, which many people who took part in this study reported as a reason why they do not wish to engage with certain online opportunities. A study of the fear of falling victim to online crime in the Netherlands found that this fear is linked to 'avoidance behaviour', meaning that people with higher levels of fear about their online safety are less likely to engage in financial activities using the internet, such as online banking and online shopping (Brands and Wilsem, 2021). This pattern was clear among the participants in this research, with some highlighting that they tend to stick to familiar websites which they trust, thus having a narrow use of the internet. There was a clear preference among several participants for carrying out financial tasks in person, rather than online:

> *"When I do my taxes, I don't like sending those online. I will take them in person to the accountant's office… I don't trust it. I just feel like maybe it's not secure. Maybe it's paranoia. The accountant has some kind of elaborate setup where they do something magic that makes it secure. I don't really trust it [online].* – Rita

This lack of trust in digital technologies was common across many interviews as well as the focus group, where people expressed serious concerns about security. Fear around online safety is an issue raised by some professional proxy users, who highlight that while messaging around staying safe online is important, this can also have the effect of putting people off trying to use the internet.

> *[This] perception can cause them a lot of stress, sleepless nights and problems… And I see that coming up with cyber fraud and security concerns and I have another theory that the warnings and the sort of practical advice that's been given around that, I don't know if it's working very well… It can stop them from taking part at all, and it can just really frighten people when they're already up and running or potentially up and running, and then something happens and it puts them off or just scares them* – Sid

Here, Sid highlights that while messaging around staying safe online is undoubtedly important, there is also a need to ensure that awareness of the potential dangers of using the internet is raised in such a way that people feel empowered to stay safe, rather than putting people off altogether. It is important to note that among people who acted as proxy internet users for others and who were not themselves limited internet users, there was a reasonably high level of confidence around staying safe online, particularly as these users

generally felt able to discern legitimate communications from potentially problematic ones. Nonetheless, among this group, there was awareness of the challenges of avoiding online scams, with one participant noting that he had recently had an issue with shopping on a fraudulent website, and another stating that he was "quite concerned at how sophisticated they're getting". Safety is therefore a concern for the majority of participants.

4.7. Trust and proxy internet use

Trust is crucial when it comes to proxy internet use. As previously highlighted, many people with limited levels of digital exclusion experience fear and reticence around use of the internet. People are often wary about sharing personal details, and a relationship of trust with a potential proxy user is therefore essential for many people who are reliant on others to use the internet on their behalf. This study captured various different kinds of proxy relationships, including parents being supported by adult children, people being supported by a spouse, friend, neighbour, or acquaintance, and professional proxy relationships, including people working in a caring role, or working in professional roles specifically geared towards supporting digital inclusion. Given the volume of personal data which is often required for engagement with digital activities – including names, addresses, dates of birth, email addresses, financial details, and login information – the trust between individuals in the proxy-use relationship is important to many people:

> *"He probably knows all of my passwords… I trust him implicitly… I wouldn't trust anybody else with that, but it's been 25 years [that I've known him]…"* - Rita

Here, Rita acknowledges that sensitive personal details are known by the person who supports her when she encounters difficulties with using her digital devices. Rita notes that she would trust no one else with this information, and that her proxy user has privileged access to these details given the trust they have built up over a long-standing professional relationship. Rita pays this individual for his IT support, and is happy to do so given that she feels comfortable sharing her information with him, rather than rely on a free source of support where she may not have this same level of trust. For people who do not have a trusted friend, relative, or professional who can be relied upon to act as a proxy internet user, this can therefore present a barrier to this form of access to online opportunities. While Julie acts as a proxy user for a friend with a lower level of digital literacy than herself, and while she does use the internet herself, she nonetheless sometimes needs help with using her computer, and does not currently have someone to rely on for this:

> *There's still areas when something goes wrong where I panic. I used to have a friend who would come and help me if, say, the computer had done something and locked up. Now at the minute I have nobody... So if I get really stuck [with the computer], what would I do? Possibly pay somebody, but not everyone can afford that. And then you worry about, is it secure? Who are you giving your information to? - Julie*

Relatedly, there are a wide range of challenges faced by proxy users of the internet, many of which are due to managing other people's information. For instance, some proxy users who support people's digital inclusion in a voluntary capacity are not allowed to use login details or personal information on behalf of those they support:

> *I can't be involved in accessing a bank, or anything that involves a password. I can't do that. Yes, I can point them in the right direction to request a new password, but I don't start putting passwords in, or accessing bank details at all. That's not what I can do. As soon as we head in that direction, we have to say 'we'll point you in the right direction, and then we'll have to look away', because we don't want to get the blame for anything... Anything that involves money or personal details, I can't get involved in that.* - Bill

Liability is a key issue for those providing digital inclusion support, and can mean that people are not always able to receive the level of assistance they may want. Other proxy user participants who were able to use people's personal details within the remit of their role also expressed concern about being responsible for other people's details, particularly when it comes to online banking:

> *I wouldn't do anything to do with her banking. Even if the bank decided she could, I wouldn't want anything to do with it. Because I wouldn't want to open myself up to a can of worms.* – Brandon

> *A lady in her 90s, she gives me her debit card, and I go to the post office to get cash out for her. I come straight back… Literally, I want her card out of my hand as soon as I can. But if she asked me to do it online, I would never set up someone else's account online on my own devices. I wouldn't do it, because I don't want that responsibility*. – Lauren

Dynamics of trust in proxy internet use also extends beyond the relationship between the proxy user and the person they are using the internet on behalf of. As Brendan, who is a carer who uses the internet on behalf of his client in addition to fulfilling caring responsibilities, indicates, dynamics of trust and mistrust from family members of the person he supports can also be challenging to navigate. Evidently, there are multiple ways in which trust plays a role in proxy internet use, including trust between proxy users and those they use the internet on behalf of, trust of digital systems, proxy users' own trust in their ability to safely manage others' information, and trust of others external to the proxy user relationship.

However, despite the challenges faced by proxy users, those who took part in the study typically enjoyed helping others to access information online. Some felt it was the least they

could do for a relative, while others felt that they gained social connection and a purpose from offering their help with digital skills:

> *It gives me something to do, because I've gone from a very busy active life when my husband was alive, we did loads and loads of travelling. We were both involved in organisations. I'm still involved in those organisations, but I find life pretty lonely [now]... It gives me connections with other people. It gives me a purpose in life. - Julie*

It appears then, that while there are challenges involved in providing proxy internet use for someone else, this can be mutually beneficial, providing people with a means of making social contact, or with a sense of having helped someone.

4.8. Views on digital skills support

Syvertsen (2021) notes that "governments want us to be online" (p.49), and that the OECD has encouraged member countries to push for greater uptake of digital technologies for interactions with public services. Much of the discourse around digital inclusion focuses on the disadvantage associated with not engaging with online opportunities. However, there were mixed views among participants around whether those with a limited use of the internet would want to become more digitally included were the right support available for them. This raises questions around whether local policy ought to be geared towards encouraging as many people as possible to use digital services safely, or whether the emphasis ought to be on providing a range of alternatives to enable people to choose the option for engaging with these services which suits them best, whether or not that option is digital.

As previously highlighted (see section 4.2.4) among some people who are reliant on others to get online, there is a sense that they do not need any additional use of the internet than they are already able to access via their proxy user, and therefore may not feel inclined to use the internet themselves, even if they were supported to do so. Some people who did already have some limited use of the internet themselves also felt that they already used the internet as much as they wanted to, or as much as they felt able to, and did not wish to have any further use. As also indicated in section 4.2.4, some limited internet users suggest that they perceive not being reliant on digital technologies as an advantage. Where people do not feel that they are missing out on account of their digital exclusion, it stands to reason that they may not actively seek to improve their levels of digital inclusion.

Importantly, it is also clear that people's current personal circumstances affect the extent to which improving their digital inclusion is a priority at any given time. One participant highlighted that experiencing current challenges such as mental health issues meant that she may wish to use the internet to a greater extent in the future, but did not feel she currently had the capacity to take on the additional challenge of learning digital skills at the moment:

> *[Trying to use the internet] would be too complicated for me because I said with my mental health, it's a struggle for me, even for stuff what's happening to me now and then to do something else, it would be a really big challenge for me. I would need support, but not just at the moment.* – Amanda

This resonates with existing literature which shows that people facing a range of other challenges such as financial difficulties or mental health issues can mean that people don't always feel they have the "headspace" to move towards a higher level of digital inclusion (Holmes and Burgess, 2022). Persona 2, in section 5 of this report, provides further

illustration of this. Similarly, Neale et al. (2022) show that people experiencing homelessness may want to improve their digital skills, but that they may wish to do so at some point in the future when they are "more settled" (p.150). Therefore, even where people do intend to take up digital skills support, there may be other factors which need to be in place before this can happen, with poverty, health problems, housing inequalities and difficulties accessing mental health support services all presenting barriers to improved digital exclusion.

However, some participants did express an interest in improving their levels of digital inclusion. Different people have different preferences as to the form of digital support which they feel would best suit them. Some people felt that a group setting was most useful, including Ellen, who had been going to a class to learn how to use a computer after feeling left behind due to her lack of digital skills:

> *If [I wasn't able to go to my digital skills class] I don't know what I'd do… [The group setting is] lovely… You just see other people in the same boat…* - Ellen

This notion of seeing others "in the same boat" is echoed by Max, who notes that the social setting of digital skills support groups is beneficial, providing people with a sense of confidence which comes from seeing their friends pick up digital skills, and having someone to turn to for mutual support outside of the class:

> *People feel more comfortable when they see their friends using [the internet], rather than a professional suddenly coming in and saying 'this is what to do'. Because they think 'well, if my friend's doing it, I could do it'. And they've got that backup, they can phone them up and say 'what do I do now?', so there's that reassurance.* – Max

However, for others, group settings can pose challenges, including differences in preferences around the pace of learning, and in learning content. As one proxy user noted, there are a number of barriers which can make group support less effective for some people :

> *I don't think that a one once a week class is as effective for lots of people in sort of imparting what they need… Not everyone goes at the same pace. Not everyone feels the same way about the teacher. Not everyone can make it to the location at the time or the day regularly. You know, it's a whole load of reasons. They might not cover, because they have to deliver it to a dozen people, they might not even cover what the person really, really wants to get [out of it]. – Sid*

For Amanda, who expressed an interest in improving her digital skills in the future, having professional one to one support, as opposed to help with digital skills from family or friends, was important, as she felt she would trust their knowledge to a greater degree:

> *[In the future] I think I would like a one on one, to sit with somebody and show me… I'd rather, you know, a complete stranger to help me than family or friends… I think they've got the skills to do it – Amanda*

Whatever the mode of digital skills support, proxy users highlighted the importance of ensuring trust and rapport between those looking for digital skills support and those providing it. As Penelope noted, people's preferences for the kind of support they would like to receive can change over time as people become more comfortable with the person providing support:

> *I've had contact with quite a few social prescribers in the area and it may be a case of I've got a client, due to anxiety, due to stress, due to certain mental health conditions, they're not able to come to a community session at the moment… So [I can support them] doing one or two home visits trying to build up a little bit of rapport with people, and then say come and meet me in the community.*- Penelope

Given that many people have strong feelings about digital exclusion – and in particular the pressures they may feel to engage with digital resources even where this may not have been their choice – makes this rapport all the more important:

> *I think getting side by side, being out there, and having a trustworthy person reliably out there and working flexibly around people's individual circumstances in a trustworthy way, and a sympathetic way, a non judgmental way, to people that might feel very strongly or annoyed or whatever about being left behind or not knowing, not being told stuff, is really, really important* – Sid

Another theme which was raised in interviews is the importance of libraries and other public spaces where people can go to receive support with digital skills. Stacey, who relies on her adult daughters to help her with using the internet, noted that such an amenity would be important to her were she not to have the support of her children:

> *If I hadn't got my daughter's here, obviously [a digital hub] would be a place I could go to get that kind of support. – Stacey*

While using computers in a library or digital hub might not be Stacey's first choice, she recognises that it would hold value for her if she was in a position where she did not have a reliable proxy user in her social support network. The lack of access to libraries in some locations was also highlighted as a barrier to people's access to digital inclusion support:

> *[It would be helpful] if there was any access [to digital support] in the library, which there isn't at the minute because the library doesn't exist. Or access in a central point where somebody, if they knew somebody was going to be there on a certain day, they could go and talk to – Julie*

For those who have limited mobility for any number of reasons, including disabilities, the cost of transport, or other commitments preventing travel to libraries further afield within their opening hours, the lack of a local library can mean that people feel limited in their options for seeking digital skills help.

Overall, views on digital skills support are mixed, with many people unlikely to seek this kind of support if they do not feel they are disadvantaged by their digital exclusion, or if they are content with the proxy use arrangements they may already have in place. Meanwhile, others would be interested in support, provided it is the right support for them. This highlights the need to ensure a wide range of options, providing people with choice and agency, and delivering support which fits into people's lives.

5. Personas

This report has highlighted the wide range of circumstances which shape people's levels of digital inclusion, and has indicated that the different forms of digital exclusion which this report has focused on (namely, the 'not for me', 'reliant on others', and 'proxy user' categories) are not mutually exclusive, and are experienced in various different ways. Participants in the stakeholder workshop held in February 2025 highlighted that personas – which represent various different kinds of experiences of digital exclusion without identifying individual research participants – are useful to policy makers, as they enable consideration of the people at the centre of digital inclusion policy, without compromising the privacy of individuals.

A set of personas has therefore been developed, drawing on the key themes identified in the research findings, to illustrate these complexities. These personas highlight some of the varied experiences of digital exclusion which the report indicates. Persona 1 highlights that even people who feel the internet is not for them often have some use of the internet, even where this is limited. It also highlights that a person can occupy each of the 'not for me', 'reliant on others' and 'proxy user' categories simultaneously:

Persona 1

Jane is 76 years old, and volunteers for several local charities. She used to use computers every day at work, but since retiring, she feels unable to keep up with changes to technologies, and now finds using the internet stressful. She used to have a smartphone, but no longer uses it, as she found it difficult to type using the touch-screen. She has access to an old laptop, which she uses for sending emails, arranging appointments, and looking up information.

Jane's neighbour hates using the internet, and has no access at all. Sometimes Jane will send an email on her neighbour's behalf, or tell her neighbour about something she has learned online.

Jane's niece will often carry out some online tasks for her as and when needed, and recently completed her bus pass application online. Jane wouldn't trust anyone else to do this for her.

Meanwhile, persona 2 highlights that people with limited digital skills often have a narrow use of the internet, and may avoid certain kinds of activities, particularly those of a financial nature. This persona also highlights that people's social networks are an important factor in their digital exclusion, and where people do not have someone they can ask for digital support in a personal capacity, this can hinder their efforts to explore new online opportunities. It also points towards the fact that even when someone wants to improve their level of digital inclusion, this does not necessarily mean they feel able to do so at the present time:

Persona 2

Martin is 63 years old. He has a smartphone, which he uses for keeping in touch with friends via social media apps and for looking up information online. He does not feel very confident with using the internet, and has particular concerns about online safety. For this reason, he would not consider using online banking, preferring instead to visit a local bank branch in person.

Martin would like to be able to try online shopping, as his local shops are a bus ride away, and he has heard that he could save money through online deals. However, he does not feel confident enough to try this, and does not know anyone who he feels able to ask for help. He thinks that one day he might like to receive support to improve his digital skills, but does not feel ready to do this at the moment as he is dealing with pressing financial issues.

Persona 3 illustrates that not everyone who has a limited use of the internet feels they are missing out because of this. However, it also highlights that even while a person may not want to use the internet, they can find the expectation to do so frustrating, and may perceive a need to engage with digital services in the future:

Persona 3

Bethany is 59 years old. She does not have her own smartphone or laptop, but will occasionally use a computer in the library if she needs to look up some essential information or send an email.

She avoids using the internet as far as possible, as she finds it frustrating, since her digital skills are limited. She does not feel she is missing out by way of not being able to use the internet, as she prefers to carry out daily activities in person. However, she does also find it stressful when she is expected to be able to use the internet and cannot – such as when information in public places is only accessible via scanning QR codes.

Bethany says she is not interested in learning to use the internet more effectively, but might have to in the future if more of the services she relies on move online.

A key issue raised in the research is that changes to people's personal circumstances can cause them to move in and out of digital exclusion, and this is illustrated by persona 4. Persona 4 also highlights that people who are digitally excluded can sometimes feel left behind, and therefore feel they have no choice but to engage with digital platforms and services. This persona also highlights the challenges that some people can face when it comes to accessing digital inclusion support:

Persona 4

Fiona is 81 years old. She is retired and was recently widowed. Her husband previously used the internet to a limited extent for some activities such as booking tickets for events, sending and receiving emails, and looking up information.

Fiona previously felt no need to use the internet, but since her husband has died, is feeling left behind by the increasing prevalence of digital technologies in society. She strongly dislikes using the internet, but feels that she does not have a choice. She has therefore asked her daughter to help her get to grips with some basic digital activities.

She would like more support to develop her digital skills, as she has never used a computer or smartphone on her own, but her mobility has worsened in recent years, and she is unaware of any classes or other options for digital support which would be easy for her to access.

Persona 5 highlights that people who once had good digital skills may become reliant on proxy users as their circumstances change – in this case, due to a combination of changing health, and the pace of change of technologies – and also indicates that proxy users themselves may rely on someone else for certain kinds of digital activities which they may not feel confident with:

Persona 5

Damien is 49 years old, and works in a job where he uses the internet regularly. He is a proxy internet user for his 85 year old great aunt. Damien's great aunt used to use her desktop computer daily for a range of online activities, but began to use the internet less due to issues with her eyesight, and changes to technologies since then have meant that she now finds navigating some webpages difficult. Damien visits his great aunt once per week, and will complete any online tasks she asks him to do for her while he is there.

While Damien is confident with using many digital technologies (including his smartphone, tablet, laptop and work desktop computer), his digital skills are not advanced, and he sometimes asks his daughter – who is more confident with her digital skills than Damien – for help if something goes wrong with his devices.

Meanwhile, persona 6 highlights that while people may have some use of the internet, for people with limited digital skills, this can mean sticking to a few familiar activities, and avoiding using the internet as much as possible. This persona highlights that there are challenges associated with relying on proxy internet users, but also notes that embarrassment around a lack of digital skills can be a barrier for people wanting to improve their own digital skills.

Persona 6

Nora is 47 years old, and is looking for work. She struggles with literacy, and has limited digital skills. She has a smartphone and laptop, which she uses for keeping in touch with loved ones and for managing her Universal Credit. She lacks confidence with using the internet, and avoids many online activities where possible.

When there are digital activities which Nora cannot avoid, such as filling in official forms online, she will ask her sister to help, and her sister will usually do so quickly. Sometimes, Nora's sister is busy, and Nora will have to wait for her to be available.

Nora feels that she could benefit from support to develop her own digital skills, but is embarrassed that she struggles with this, and this has put her off seeking this kind of support.

Finally, persona 7 highlights that within households, people may take responsibility for different types of online activity, such as online shopping or online banking, and therefore people may feel confident with the online activities they themselves regularly undertake, while relying on a proxy for other kinds of activity. It also highlights that where people have had negative experiences of receiving digital inclusion support in the past, this can impact their motivation to seek further support, even where they feel they would benefit from improved digital skills:

Persona 7

Marjorie is 75 years old, and lives with her husband. Her husband takes responsibility for paying their bills online, and for managing their online banking, and Marjorie has never felt the need to learn how to do this. She does use the internet herself for some limited activities, such as keeping in touch with family and shopping from a few trusted websites.

Marjorie has friends who are more confident than she is with the internet, and she feels that she could benefit from using the internet more than she currently feels able to. However, she previously found a digital skills class unhelpful, as the class moved too fast for her, and made her feel unable to keep up, and this has put her off seeking further support. She has now forgotten the things she learned at that class, and does not want to start again.

Overall, this bank of personas provides an insight into the varied experiences of limited internet users, drawing attention to the ways in which different aspects of people's personal circumstances shape their use of the internet.

6. Recommendations:

On the basis of the evidence presented in this report, a number of recommendations can be made around how best to address the issue of digital exclusion, both within Cambridgeshire and Peterborough and beyond:

Understanding limited internet use

- This research highlights that categories of digital exclusion, such as those who say the internet is 'not for me', those who are 'reliant on others to use the internet on their behalf, and those who are proxy users for somebody else, are not mutually exclusive, with some people falling into more than one of these categories at once and moving between them at different times. This highlights that people's experiences of digital exclusion are highly varied, and that digital inclusion support targeted towards any of these particular groups ought to recognise that such distinctions are not clear cut and encompass a wide range of forms of digital exclusion. Digital exclusion is known to exist on a continuum (Livingstone and Helsper, 2007), and the extent to which people are disadvantaged by their digital exclusion will vary depending on their circumstances.

- This research makes clear that people who say the internet is 'not for me' are not necessarily internet non-users. In fact, most people who volunteered to take part in the research on the basis that the internet was 'not for them' did have some use of the internet, even if this was limited, or if they had strong negative feelings about digital technologies. This should be taken into account by local authorities and other organisations looking to target digital inclusion support towards internet non-users and limited-users.

Offering alternatives

- It is clear that many people do not want to use the internet, and sometimes feel as though they are being forced to do so as a result of services becoming increasingly digitalised. There is a clear need to ensure that people do not miss out on service provision as a result of choosing not to use digital technologies. Both public and private service providers should ensure that alternatives to digital services are available, and that these are easily accessible.

Addressing root causes of digital exclusion

- It is clear that digital exclusion cannot be tackled in isolation. As this research has shown, a range of other factors, including mental health and poverty, are crucial in

shaping people's digital exclusion. Tackling these underlying issues will therefore be an important step towards addressing digital exclusion.

- Social isolation has been shown to be an important issue which can lead to people becoming more digitally excluded, due to a lack of support networks to assist people with getting online. Tackling social isolation is therefore an important step towards facilitating digital inclusion. Involving community organisations in digital inclusion support will therefore be important here, since such organisations often play a key role in addressing social isolation.

- Fear of online harms is a key barrier for digital inclusion, with several participants in this study noting that they avoid certain activities due to concerns around online safety and security. Care should be taken to ensure that messaging around online safety is balanced, raising awareness about practical steps people can take to avoid online harms and supporting people to use the internet with confidence, while at the same time avoiding generating fear around this issue.

- For people with limited digital inclusion, changes to familiar webpages and software can cause serious problems, as people may struggle to carry out online activities which they previously were familiar with. IT specialists and web designers should be made aware of the needs of limited internet users, and should carry out updates with their needs in mind.

Evaluating current support provision

- It is clear that demand for digital skills support varies among people with limited use of the internet, and that not everyone wants to engage with support services. However, among those that do, there are diverse preferences around what form this support should take. A range of different digital skills support services catering to various different learning preferences, and accounting for various different needs arising from people's personal circumstances, should be available to ensure that anyone who wants to improve their levels of digital inclusion is able to do so in a way which suits them.

- Adequate funding should be made available to address digital exclusion. This should include revenue funding as well as capital funding. Small charitable organisations have a key role to play in offering support at the local level, but are often constrained by resources, which means they may not be able to reach as many people as they would like. Where organisations receive funding for equipment (such as laptops,

tablets, and data sim cards), but not for staff salaries, they are reliant on volunteers. Approaches to funding should recognise that while equipment is important, people are also essential to delivering digital inclusion support.

- Embarrassment around not being able to use the internet, and fear around online safety, have been shown to present considerable barriers to people's digital inclusion. Generating a rapport and trust between digital support providers and people seeking this support is therefore essential to tackling these barriers, and digital skills support providers should ensure that professionals and volunteers delivering this support receive adequate training to be able to assist limited internet users in a non-judgemental and empathetic manner.

- This research has shown that there already exist a number of digital support services across Cambridgeshire, which are delivered through both voluntary and professional roles, in a range of different ways, including on a one-to-one basis and in group settings. In order to ascertain where there may be gaps in provision of digital support to suit various different individual needs, the existing network of digital support services across the local area should be evaluated. This would enable consideration of what is working in the local area, whether any additional services might be needed, and what additional support existing services might need to enable them to scale up, to ensure people are aware of them, and to reach those most in need. A local directory of the wide range of support available across the county would help to ensure people can be signposted to the most appropriate support for them.

- The research highlights the importance of community venues, such as libraries, as well as community groups and community-embedded organisations for providing digital support. Care should be taken to ensure that these groups are adequately supported to deliver these services, and that local communities have access to digital skills support within easy reach, without needing to travel long distances to access this. Efforts should be made to provide limited internet users with opportunities to engage with digital support in a range of settings, including local council buildings, libraries, warm hubs, and pop-up events. This will help to reach people who may not otherwise seek out digital support.

Providing support for proxy users

- It is clear that acting as a proxy internet user is complex, and often requires people to handle private information on behalf of others, including email addresses and passwords. Currently, there are guidelines available for people looking to help others use the internet (see Good Things Foundation and Centre for Ageing Better, n.d.), but

there does not appear to be a similarly easy to access resource for those who act as a proxy internet user. A set of guidelines should be developed which can support people who use the internet on behalf of others by providing advice on how to handle some of the complexities of this role. This should recognise that not everyone who uses the internet on behalf of others will have a high level of digital literacy themselves.

- It is clear that not everyone who would benefit from proxy internet use has access to someone in their support networks who would be able to take on this role. Information should be collated about local trusted proxy internet users – including professionals, trained volunteers and community digital champions – so that a range of local service providers can easily signpost this kind of support to people in need of it.

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