Digital Poverty and Exclusion in Scotland

Digital Lives of Care Experienced Children

Jennie Laurenson, Research Coordinator
SCRA | DECEMBER 2023

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Summary

We live in a digital world, but we are not all equal digital citizens. We often assume everyone has the same access and abilities when it comes to digital life, but this is not the case for everyone in Scotland. Digital exclusion was heightened during Covid-19, accelerating our move into the fourth industrial revolution and the Children's Hearings System was forced to go fully digital in order to remain operational. The pandemic highlighted how acute digital exclusion levels in Scotland are and how some groups are falling behind their peers as the march towards digital continues post-pandemic. This digital gap has become even more pressing as the cost-of-living crisis continues (The British Academy Digital Society, 2022).

With this in mind, it is important to ask the question – why go digital? For the majority of the population, digital services are likely to be easy to access, more convenient and suitable for purpose. However, the Children's Hearings System, and SCRA, do not support the majority of the population. Our purpose is to support children and families in difficult situations; these families are often from financially unstable households and deprived areas and some children and young people experience problems receiving a regular and consistent education at school. While we often assume that access to an internet connection, skills training or device is a given, this is not always the case for those struggling to pay bills, those moving from place to place, and those who miss a lot of school.

The research for this paper involved looking at a range of evidence on digital exclusion in Scotland and the UK, with a particular focus on those with lived experience of care. Qualitative research included examining government strategy and policy, third sector user research and academic research by various universities across the UK. National surveys were used to gain insight on quantitative data.

The majority of the user research conducted into digital exclusion has taken place online; this raises some clear concerns that the input of those most excluded in the digital sphere is not being included. Digital exclusion lacks a universally agreed definition, so it can be challenging to measure (Carnegie and UNICEF, 2021).

The traditional approach to exclusion involves a binary measurement of internet users versus non-internet user. This however lacks the nuance or depth required to understand the varying levels of exclusion in Scotland. This research takes a different approach; digital exclusion should be viewed as a spectrum. While we do have those who use the internet, and those who do not, there are varying levels of use, connection, access to devices, and skill and confidence levels across the spectrum. To measure exclusion effectively, this research considered three pillars of digital inclusion: connection, skills, and kit.

Digital users are not homogeneous, they cannot be defined as simply offline or online. This approach assumes digital users maintain the same levels of connection, kit, and skills but people can fall in and out of digital exclusion throughout their lives (Digital Poverty Alliance, 2022). Ofcom have recognised that this definition of a digital user is problematic and have developed an alternative: the breadth of use analysis (Ofcom, 2022). This method asks users how many tasks they have undertaken from a populated list, created by Ofcom. The findings indicate that a significant section of those considered to be digitally included under traditional measurements – defined here as narrow users – are not using digital services in the same way medium or broad users are. This recognises that users can vary widely from those who simply use the internet for the radio, to those who connect daily for work, life and school.

Digital connection is impacted by a variety of socioeconomic factors across all three categories, including age, household income, geographical area, education, disability, and care status. For those who are a part of multiple underprivileged groups, risk of digital exclusion increases, compounding their disadvantages in society (Helsper, 2021).

Geography has a strong influence on digital connection. The rural versus urban divide remains, despite ongoing upgrade work (Data Poverty Lab, 2022). This divide is wider in Scotland than in the rest of the UK, both for broadband and 4G (USwitch, 2023). Type of housing has an impact too, with connection levels lower for those living in social housing than those who own their homes (Scottish Household Survey, 2021). Low-income impacts connectivity, with connection rates increasing with wages. Lower income households are impacted by poverty premiums and pay on average four times more for their broadband than those in households earning the average UK income (The British Academy Digital Society, 2022). Other poverty premiums include an inability to access online discounts for travel, groceries, or service comparison sites.

Children and young people in care experience additional barriers which impact their digital inclusion. Like all young people, those who are under eighteen cannot get a phone contract in their own name. This is particularly problematic for those in care, as they are less likely to have a trusted adult available who is able to take a phone contract out for them. Furthermore, when children in care reach eighteen, they lack a credit history to start their own phone or broadband contract, and again, the lack of an adult to act as a guarantor is an issue. Accessing a digital connection in residential and foster homes can be a challenge; Wi-Fi provision and access is inconsistent and sometimes revoked when resident behaviour is deemed to be unreasonable (Children's Commissioner England, 2017). Public Wi-Fi is available in a range of places, but can be more limited due to slower speeds, multiple users and restrictions dictated by opening times, security and cost. Care experienced children and young people have reported riding buses throughout the night in order to access public Wi-Fi, which raises concerns regarding safeguarding and privacy, particularly for sensitive online activities such as Children's Hearings (Children's Commissioner England, 2017).

During Covid-19, children in care experienced a 'double loop of inequalities'. This means that children from a disadvantaged background experienced further inequality online due to digital exclusion, which then in turn exacerbated their existing offline exclusion (The British Academy Digital Society, 2022). This continues to be an issue post-pandemic, with some schools choosing to continue to deliver assignments and homework via digital services like Teams, excluding children in care from the same digital education as their peers.

Exclusion can also be examined through digital skill levels. This includes the ability to navigate online safely and confidently, to carry out vital tasks and to engage in communities effectively, with positive outcomes. Digital skills are measured using the Llyod's Digital Skills Framework, which measures digital foundation skills, essential digital skills to thrive in a digital society and work essential digital skills (Llyod's Banking Group, 2023).

2023 results of these measurements show that 16% of adults in the UK do not have all of the foundation skills, and 2% do not have any of the foundation skills; 5% do not have all of the essential digital life skills and 3% do not have any at all. This digital skill deficit means that children and young people living in these homes are unlikely to have an adult present who can inform and develop their digital skills.

Digital skills are often assumed to naturally exist in children and young people. This assumption often refers to children as 'digital natives' and first began to appear in 2001 (Prensky, 2001) to discuss differences between younger and older generations (Enyon, 2022). The concept lacks evidence and has been widely criticised, yet the idea of young people as digital natives persists within our society and informs discussions on the best way to provide public services and support for young people. Evidence suggests that there are a range of factors that cut across age when it comes to digital exclusion, including education, income, self-confidence, and household employment status (Digital Poverty Alliance, 2022). We often assume that education will act as a leveller, but there is unequal access to technology and training in Scotland between affluent and less well-resourced schools. Young people themselves often do not subscribe to this myth, with user research conducted in 2020 indicating that 34% of young people said they 'didn't know where to start' when it came to online learning (The Conversation, 2021).

Children and young people are often more confident using applications ("apps") than they are using more traditional digital tools, such as email or word processing software (Citizens Advice Scotland, 2019). While this is useful in improving digital skills around creativity and communication, it does not necessarily indicate that these skills will transfer over to other areas, such as those useful for work and study, or the confidence or skill to access and engage with services online.

The digital native myth can also be harmful. It may encourage a 'hands-off' approach from teachers or adults at home and puts the responsibility of digital inclusion onto the child, rather than addressing wider societal issues (Enyon, 2022).

For those living in residential or foster homes, digital skill levels among staff and foster carers contribute to exclusion. Staff lack the digital skills needed to support young people (CELCIS, 2020). This impacts care experienced children and young people in three ways. Firstly, young people do not feel like they can go to staff or foster parents with their concerns. Secondly, young people feel frustrated at staff and foster parents for not understanding the importance of digital connection to them. Thirdly, children and young people's skills are not being developed in the places they live.

The final measure of digital exclusion is access to digital kit. Common devices include laptops, desktop PCs, smartphones, and tablets. While all can potentially connect to the internet, they do not necessarily provide the same user experience.

Cost of digital kit can be prohibitive and some still view a smartphone as a luxury, rather than a device necessary for inclusion in everyday life. Those who are most financially vulnerable in society are those who cannot afford digital kit; this includes those on means-tested benefits and care leavers (Ofcom, 2023).

If we force people to use digital services, then service users may put themselves into financial situations they cannot afford by borrowing money with inflated interest rates.

Access to a device is important. 9% of children in the UK did not have access to any kind of suitable device during lockdown (Ruiu, 2023). Teachers reported that access at home was lower for those in deprived areas, in comparison to affluent areas (The British Digital Academy, 2022). Those in care experience issues accessing suitable digital kit in residential homes due to out of date systems and software, in addition to restrictive security protocols (Carnegie UK Trust, 2021). These restrictive protocols can also be found on public computers in local authority spaces, such as libraries.

Type of device is just as important. For children and young people with devices, the internet is primarily accessed via a mobile phone or tablet. Most parents believe that their child has consistent access to a device for schoolwork, but often the device is not always suitable for the task they have been assigned (Ofcom, 2019). Household devices may also be shared among multiple family members and therefore not be available when required.

This is not unique to young people; it is estimated that 89% of Scotland's population own a smartphone. Increasingly, a large number of those under forty-five only use a smartphone to go online, and it remains the most common device for those under twenty-four (Citizens Advice Scotland, 2018). However, smartphones have functionality limitations and are not suitable for some everyday tasks, such as filling in forms and working on documents. There are two distinct groups of smartphone users – those who use one by choice and those who use one by circumstance. Smartphone by circumstance users have fewer digital skills, are more likely to be financially vulnerable, and to live in areas of deprivation.

Strategy to address digital inequality and poverty in Scotland can be found at both national and local levels, with the focus primarily on connecting households to the internet. Further recurring themes include upskilling staff, increasing digital training and the development of digital services. National projects involve supplying laptops and data in an attempt to address digital inequality, but these do not reach every child. Further national strategy includes commitments by the NHS and COSLA to upskill their staff and work with educational institutions to promote digital skills training.

In conclusion, the digital divide in Scotland is narrowing but the gap has not closed. SCRA should consider whether their digital strategy considers the significant levels of digital exclusion in the population groups we support.

There are clear socioeconomic and geographic barriers to inclusion and compounding factors impact an individual's ability to connect, navigate and succeed in a digital world. Children and young people within the Children's Hearing System are far more likely to experience higher levels of digital exclusion than their peers.

We must recognise this when developing digital strategies and services or the families we support will continue to be left behind. We need to design the right thing before designing that thing right.

The recommendations below suggest ways to bridge the digital divide for those in the Children's Hearings System.

1. Carry out offline user research on the experiences, desires and needs of children and young people with care experience in relation to digital exclusion and services. Look at existing research conducted by partner agencies and the voices of care experienced young people in The Promise to understand how they feel about digital exclusion.

2. Corporate Parents and/or the Scottish Government should take on responsibility for ensuring care experienced children and young people have access to the three pillars of digital inclusion: kit, connection, and confidence. This could be achieved through a multi-agency programme of work. Children and young people should be involved in the design and implementation of digital training and staff within the care system should be supported to assist young people to develop their digital skills. This training should improve digital competence, but also digital confidence, to engage in online spaces with young people

3. Every care and support plan should reference the digital needs of the child or young person, and what barriers must be removed to allow access. Digital access should be integrated into pathway planning for care leavers and should include costs and training plans.

4. Risk adverse views need to be reassessed, in favour of a rights-based approach, in line with The Promise. The importance of online communication in maintaining scaffolding and social connection for those in care should be emphasised and these views must be incorporated into the SCRA Digital Strategy.

5. Digital by default should not be the goal while digital exclusion persists in underprivileged groups, or it will lead to further exclusion. One size does not fit all, and we have to create an opportunity for choice. Ensure there are a range of digital and non-digital services available – these should be equally accessible and of identical quality. SCRA must consider the levels of existing digital inequality amongst our service users when planning any digital strategy.

6. Given the evidence around smartphone use any digital service should be compatible with mobiles and user friendly.

7. Ask the important questions. As we move towards a more digital approach, we must focus on the evidence of need, user preference and link into ongoing technological advances.

8. Investigate the possibility of making Children's Hearings related websites 'zero rated'. This is when internet service providers allow consumers to access a website without charging their data plan. This should include all pages provided by SCRA, Children's Hearings Scotland, Our Hearings, Our Voice, as well as advocacy partners.

9. Remain aware of the myth that young people are digital natives. Instead of assuming that all young people are digital natives, and designing services around that idea, we should remember that children and young people are not a homogenous group; they have varying levels of access, kit, skills, and confidence.

10. In addition to filling the existing digital skill gap, consideration should be given to meet young people and children in a digital space that they already feel comfortable in– mobile technology. Consider using applications that young people are familiar with and introducing a smartphone app where service users can interact with a range of information and stakeholders relating to their care, hearings and reviews. More user research should be undertaken to assess whether care experienced people would want or need this service, and to obtain their input on how we could create such a tool, while avoiding stigma. This would need to be treated as an early intervention tool and introduced at social work contact stage.

Introduction

We live in a digital world. The Covid-19 pandemic accelerated our move into what has been referred to as the fourth industrial revolution. Organisations had to go fully digital because it was necessary to ensure services remained operational. Scotland's population became reliant on the internet for information, communication, and access to a range of services, including those offered by councils, schools, the NHS and the care and justice sector. It would be a reasonable assumption then that most of the population are now more digitally engaged and aware, as a result of this switch to digital by default. On the contrary however, the pandemic highlighted where, and to what extent, digital poverty and exclusion still exist in Scotland. Social distancing and lockdowns closed spaces with public Wi-Fi, shining a light on those who could not connect sufficiently at home. These spaces continue to suffer closures as the cost-of-living crisis continues.

Children from poorer backgrounds and those in care still struggle to get online to learn, and lack adequate access to devices, connections, and digital skills training. Those based in residential homes or foster placements can experience access barriers as a result of a risk-focused narrative, or connections being restricted as a punitive measure. Those who are elderly or unemployed often lack the skills, desire, and confidence to navigate the digital world in a meaningful way. Too many rural populations do not have a sufficient or reliable connection, either via broadband or 4G/5G networks (USwitch, 2023).

Those who are financially vulnerable continue to experience further exclusion as costs of broadband rise, remote working remains common and the gap in digital provision widens between affluent and less affluent schools. The landscape of digital exclusion is complex and cannot be defined solely in the context of users versus non-users. There is an increasing consensus that there are various levels of digital exclusion and poverty which extend beyond this binary concept. Disparities in these levels exist across the three key factors of the digital divide: access, skills and outcomes. These vary widely across both user and non-user groups and are impacted by a range of socioeconomic factors. Systemic social issues have a considerable impact on digital exclusion and poverty. Digital poverty is intrinsically linked with offline poverty (Inspiring Scotland, 2020).

Those most likely to experience digital exclusion are already disadvantaged in our society and are excluded from the digital world as a result (Carnegie UK Trust, 2016). Indicators of poverty, including digital poverty, can include disability, age, unemployment, tenure, income, and location. Possession of multiple indicators equals a higher likelihood of digital poverty and exclusion. Children and young people with care experience are likely to have multiple indicators of digital poverty. This is due to financial constraints but also because of inaccurate assumptions about digital skill levels in young people; a lack of reliable access to devices and connectivity; a lack of digital support and understanding from care sector staff, and restrictive risk-focused practices in residential homes and foster placements.

This paper will assess the extent of digital poverty and exclusion in Scotland, including an examination of marginalised groups; specific focus will be given to children and young people with care experience.

The evidence gathered in this paper suggests that children's digital rights are not being maintained in Scotland, and the recommendations aim to highlight the areas where we need to do more to eradicate digital inequality. This focus on children and young people aligns with the Scottish Government's commitment on Getting It Right for Every Child (GIRFEC) and the United Nations Convention on the Rights of the Child (UNCRC), which outline the rights of children to support, inclusion and access to education, culture, and information. In our increasingly digital world, these rights extend to the online sphere. Furthermore, The Promise Scotland notes that children and young people with care experience will grow up respected. This means we must protect their digital rights and provide the support and scaffolding required to connect, navigate, and succeed online, in line with their peers.

Methodology

The desk research for this paper consisted of a literature review. This involved an examination of national and local surveys; government strategy and policy papers; existing studies involving focus groups, interviews, and workshops with those in the care sector; third-sector evidence reviews; digital toolkits and frameworks, and academic research papers. The variety of data and evidence studied encompasses a range of experiences and viewpoints, including children and young people with care experience; employees in the care sector; those who create policy and strategy around digital inclusion; those who study or support the general population with digital inclusion; and those who undertake research in the fields of care and digital poverty.

Furthermore, reports such as the Scottish Household Survey and Ofcom's report on Media Use and Attitudes provide an enormous amount of valuable data on types of digital users, digital connection, skills, and kit to analyse. This has been supplemented by the UK Consumer Digital Index, developed by Lloyd's bank, which provides detailed insight into how digital skills are standardised and measured throughout the UK. Academic expertise, from social workers and third sector organisations, provides insight and nuance into the complexities of digital exclusion and poverty. This includes research specific to young people in care, such as that undertaken by CELCIS, Who Cares? Scotland and the Children's Commissioner England and research on digital poverty and exclusion overall, by the Digital Poverty Alliance, Citizens Advice Scotland, and the British Academy Digital Society.

The search terms for this research included keywords and phrases including digital poverty; digital exclusion; digital myth; digital strategy; children in care digital; residential digital; pandemic digital and digital statistics.

The limitations of research into digital poverty and exclusion include the problem of minimal user engagement, especially from those with care experience. While studies have been undertaken on digital exclusion in the care sector, they are often carried out with a small group of users (<20 children or young people) or visit a small amount of residential and/or foster environments.

These studies have proved useful for the purpose of this paper, and when combined they allow for greater understanding, but much more extensive user engagement research with children and young people in care is required to provide detailed insight. Additionally, there is a lack of focus on those who live under home supervision orders or in kinship care, who may experience cumulative disadvantage as a result of living in deprived areas, as well as with older relatives. It is vital to include their voices and suggestions on appropriate solutions to tackle digital exclusion.

A limitation of this paper is the lack of research available specifically on Scotland's digital divide. While some work has been carried out by third-party organisations, government, and academics, most of the primary data in this report comes from UK-wide resources. While there is no substantial difference overall in Scotland's internet usage data compared to the rest of the UK, it was impossible to study the nuance of differences in detail. This limitation is particularly important given the higher proportion of individuals living in rural and island communities in Scotland.

Many of the studies examined for this paper used online data collection. This means that offline users were often unable to contribute to the research. While there are some exceptions to this – face-to-face interviews and telephone calls in the Scottish Household Surveys, visits to residential care homes by the Children's Commissioner England and paper surveys distributed by Citizens Advice Scotland – most of the research on digital exclusion was conducted online. Given that much of this research was carried out in the last three years, it is probable that the pandemic had an impact on methodology. Further (non-digital) user research is recommended to provide a more substantial qualitative input from those who are most likely to experience digital poverty and exclusion.

Finally, the challenge of examining digital exclusion is that there is no universally agreed definition of what this means. While UNICEF and Carnegie have called for both a national measure of digital exclusion and local authority level trackers, there is no currently accepted national framework which encompasses the range of factors that we currently use to measure digital exclusion (Carnegie and UNICEF, 2021). With this in mind, the methodological approach in this paper will be to examine each factor individually, with a renewed call for governments – both central and devolved – to create a national framework for measurement. Connection, skills and kit will be examined individually here, with consideration given to the impact of age, location, care status, socioeconomic status and disability on digital exclusion.

An overview of strategy in Scotland to address digital poverty will then be provided, followed by recommendations to address digital poverty and exclusion, specifically for care experienced children and young people within the Children's Hearings System. These will be based on the findings of the research and informed by the existing studies carried out with those with care-experience, as well as third sector and academic recommendations.

Findings

Connection

At first glance, Scotland is a well-connected digital nation. Successive household surveys from 2019-2021 indicate that most of the population is connected to the internet. The most recent Scottish Household Survey (2021) interviewed 10,000 households via telephone and face-to-face interviews and concluded that 96% of households in Scotland have access to the internet, with 95% of adults connecting for personal use or work. While not directly comparable with previous years due to the impact of Covid-19, this is in line with a general upwards trend in internet usage every year. This reflects similar numbers across the UK, with Ofcom's Adult's Media Use and Attitudes Report indicating around 94% of households had internet access at home in 2021. While these figures appear positive, they mask the reality of varying levels of digital connection and exclusion.

Measurement by internet access alone is not a sufficient appraisal of whether a user is digitally included as it lacks the nuance to see how often people connect, and the depth to understand the quality and use of their connection. The Office for National Statistics defines an internet user as someone who has used the internet in the last three months. However, once you are defined as an internet user you are no longer considered to be digitally excluded. This could mean that someone who uses the internet once, at a library for example, with the help of the staff, would not be considered digitally excluded. This approach assumes digital exclusion is binary and static, but people can fall in and out of digital exclusion throughout their lives.

Ofcom have recognised that examining internet usage as a binary concept is not effective, and so have utilised a breadth of use analysis to place internet users into three categories: narrow, medium, and broad.[1] These categories are based on the user's online activities, as shown in Figure 1.

[1] Ofcom (2022), *Adults Media use and Attitudes Report*. This study is based on Ofcom's Adult's Media Literacy Tracker surveys and their qualitative, longitudinal, ethnographic project Adults Media Lives, running since 2015.

Figure 1: Ofcom's twelve online activities, used to categorise types of internet user

These categories allow for a more detailed understanding of what it means to be an internet user, used here as a proxy for digital inclusion, eschewing the concept of user vs nonuser.

Narrow users are those who have only ever undertaken one to four of the twelve listed online activities; these made up 29% of respondents.

Medium users are those who have undertaken five to eight of the twelve activities; these made up 40% of respondents.

Broad users were those who have undertaken 9+ of the activities and made up 28% of respondents.

This approach gives a clearer picture of the varying levels of users, specifically providing insight into what users do when they are connected. The findings indicate that a significant section of those considered to be digitally included under traditional measurements – defined here as narrow users – are not using digital services in the same way medium or broad users are. Internet users cannot be defined as one category, when the use itself is so varied.

Likewise, digital inclusion cannot be defined as a single category when levels of inclusion are so varied. A user who can listen to radio on a website, but cannot carry out any of the remaining tasks, is not as digitally included as a user who can complete all twelve tasks without issue. While these figures do provide greater insight, they still do not provide a complete picture of internet access and use. They do not, for example, provide data on how often the users access these services or carry out these tasks. The Institute of Development Studies also notes that these measurements do not consider the use of public Wi-Fi, those who require help to go online, or those with slow connections. Indeed, Ofcom's measures may indicate that someone can carry out an internet task, but they do not offer clarity on whether they are able to carry out this task themselves, at a time of their own choosing, without assistance, on their own stable and secure internet connection at home.

Type of connection also plays a key role in digital exclusion. Not all internet connections are equal. Even with continuous improvements being made to reduce the gap between rural and urban areas, 9% of UK rural properties cannot receive a fixed broadband connection, compared with 1% of urban properties (Lloyd's UK Consumer Digital Index, 2022).

It is expensive to install optical fibre in rural areas and hilly terrain and poor weather can impact connection consistency and speed. This rural vs urban divide is wider in Scotland; only 83% of rural premises in Scotland receive superfast broadband, compared with 96% in the UK overall (The British Academy Digital Society, 2022).

Rural areas in Scotland also disproportionately lack 4G coverage; uSwitch noted that 57-75% of Scotland's landmass is covered by 4G, as of January 2023. 17% of Scotland has zero access to 4G. This is compared to only 2% with no coverage in England, 9% in Wales and 3% in Northern Ireland.

Socioeconomic status has a direct impact on both the type and quality of digital connection, and it informs what type of tasks users engage in online. The British Academy Digital Society estimates that a quarter of connected people on lower incomes for example, do not use video calling due to data allowance limits on their plans. While social tariffs have been introduced by internet service providers (ISPs), these often provide slower connection speeds. Even the type of building can impact a connection. For those living in shared housing, access to sufficient speeds for multiple users can be limited. Housing associations often find it difficult to persuade ISPs to install the digital infrastructure in their housing projects with a smaller customer base (The British Academy Digital Society, 2022).

Tenure also has a role to play, with social housing tenants in Scotland having lower levels of connectivity (88%) than homeowners (98%) (Scottish Household Survey, 2020).

Digital poverty can amplify economic poverty, with poorer households often facing a 'poverty premium' (The British Academy Digital Society, 2022). This means that those who are struggling financially often pay more for the same essential goods and services as those who are digitally included, due to their inability to make use of cost-saving opportunities found online. This could include cheaper tickets for transport or discounts on groceries, both of which are available primarily via applications.

The Centre for Economics and Business estimated in 2018 that people could save up to £444 per year if they were not digitally excluded. Rising costs of broadband or data services, particularly in the context of a cost-of-living crisis, have a detrimental impact on digital connection. Indeed, access to the internet increases with net annual income. Scottish figures for 2021 show that 81% of those with an income of £6,000-£10,000 had an internet connection at home, compared to 100% of those with an income of over £40,000 (Scottish Household Survey, 2021). UK-wide figures show that 83% of the social classification DE group[2] use the internet at home, compared to the national average of 94% (Ofcom, 2022).

[2] The DE group social classification relates to those employed in semi-skilled and unskilled manual occupations, the lowest grade occupations in other sectors, and the unemployed.

Ofcom's Communications Affordability Tracker indicates that 28% of households have difficulty affording a communication service in the UK, with 7% specifically finding it difficult to afford their fixed broadband service.

In 2022, ISP prices began to increase significantly; broadband bills went up by 9.3% and mobile data contracts increased by 11.4%. These increases impact disproportionately on lower income households. Those on Universal Credit were nine times more likely to be behind on broadband bills, and the 3.3 million poorest households in the UK spend over 4% of their income on fixed broadband – this is four times more than the amount for an average income household (The British Academy Digital Society, 2022). While ISPs do offer social tariffs for those on Universal Credit, these are not widely publicised.

Even if a user can afford a broadband or data contract, some struggle to obtain one. Care leavers find it difficult to get a Wi-Fi contract due to their limited credit histories. Those under eighteen cannot get a phone contract in their own name, which means they must use the more expensive pay-as-you-go option, another example of a poverty premium. This gap in internet provision is an illogical example of inequality in Scotland, where sixteen-year-olds can get married, leave school, and join the army but are denied the ability to choose their method of digital connection. Care experienced children and young people living with foster families, or within residential units, also experience further connection and access problems.

A small-scale study by the Children's Commissioner England indicated that Wi-Fi access was often inconsistent in residential settings. Wi-Fi restrictions were sometimes used by staff as a punitive sanction for perceived unacceptable behaviour, impacting everyone in the home (The Children's Commissioner England,2017). Access to the internet was also limited due to safeguarding concerns, with Wi-Fi sometimes blocked within private rooms, due to an assumption that all internet-based activity is inherently risky. Both Wi-Fi restrictions and the risk averse approach can be seen in further studies. Dr Autumn Roesch-Marsh, a senior lecturer in social work at the University of Edinburgh, conducted a limited study involving conversations with care experienced young people and focus groups with care staff (Roesch-Marsh, 2020). Both groups agreed that the internet was difficult to access in residential units, because of poor infrastructure, risk averse cultures and cost.

Ffion Evans, senior lecturer, and social worker at Manchester Metropolitan University, found that for children living away from their families, technology is predominately viewed as a risk to be managed (Evans, 2020). This perception tends to result in 'punitive responses', again suggesting that the risk averse culture surrounding internet use for care experienced children is preventing them from engaging fully in the digital world, through restrictive connection practices. Dr Roesch-March argued that this narrow focus on a narrative of risk tends to shape practitioner responses to care experienced children and young people, instead of promoting constructive discussions on their digital inclusion and rights. This can lead to children and young people in care settings to attempt to find digital connection in public spaces. Public Wi-Fi networks are common, though generally more limited than home broadband connections.

These connections tend to be slower, depending on the number of those accessing the network, and will inevitably have access limitations dictated by opening times and usage restrictions. Additionally, costs are incurred for those who need to use transport to get to areas or buildings with public Wi-Fi, excluding those who do not have the financial means to do so.

Care experienced children and young people seeking public connections may attempt to access unsecured networks outside of other residential homes, ride public transport late at night to access free Wi-Fi, or visit commercial or council-owned spaces – cafes, fast-food restaurants, libraries – to use their networks (The Children's Commissioner England, 2017). There are safeguarding concerns surrounding children spending time alone in public spaces and using unsecured networks, but there are also privacy concerns about how appropriate these networks are for sensitive conversations or proceedings. For example, a public space and Wi-Fi connection would not be appropriate for attending a virtual Children's Hearing or a looked after children's review. These same privacy concerns are an issue in shared residential spaces where access is communal. Public Wi-Fi can fill stopgaps in the digital divide, but it cannot provide the same level of inclusion as those who have a private, secure, and fast permanent connection where they live. This was particularly evident during the pandemic when spaces to access public Wi-Fi were closed and restrictions were in place.

Who Cares? Scotland spoke to care experienced young people about their digital access during Covid-19 and found that many did not have internet at home during the pandemic (Who Cares? Scotland, 2022). This meant that they could not access digital services during a time where digital was the only option. One respondent specifically mentioned their inability to get online due to library closures.

CELCIS also conducted research on care experienced users who had limited or reduced access to Wi-Fi during Covid-19. 7.5% of their online survey respondents said that they accessed internet via friends or family, with a further 12.5% saying they could only access it via free public sources (CELCIS, 2021). While pandemic schemes involved providing free devices to disadvantaged families, these did not provide every child with a laptop. The schemes implemented by the Scottish Government have now been paused (Scottish Government, 2021, A).

Age can also have an impact on digital connection. In 2019, the Office for National Statistics reported that 12% (700,000) of young people aged 11-18 had no access at home at all. The pandemic highlighted this; digital exclusion in children during Covid has been described as a 'double loop of inequalities' (The British Academy Digital Society, 2022). This means that many of these children come from a disadvantaged background; their offline inequalities heightened their digital exclusion when forced to stay at home, which then prevented them from participating in education during the pandemic, which in turn exacerbated their existing socioeconomic disadvantage.

In summary, digital exclusion, in the form of a lack of regular, private, and reliable connection to the internet, exists in Scotland. It is not binary, with a clear split between those with access and those without. Certain groups and areas are disproportionately impacted by digital exclusion due to a range of socioeconomic and geographical factors.

These factors however are at their most exclusionary when they align; the people who struggle to access a meaningful digital connection are those who have multiple factors. This is particularly true for young people. The gap between those who are connected, and those who are not, is narrowing. However, the type and quality of the connection varies depending on geographical location, income, school, home life, age, and care status.

Connection alone is simply not enough. While work must continue to bridge the access gap, wider work must take place to ensure those in marginalised groups do not suffer further inequality as a result of digital exclusion.

Digital Skills

Digital skills are a further vital component of digital inclusion. Digital skills include the ability to navigate online safely and confidently, to carry out vital tasks online and to engage in online communities effectively, with positive outcomes. The Digital Skills Framework, based on the results of the Essential Digital Skills Survey, is used as a benchmark in the UK to measure skill levels (Lloyd's UK Consumer Digital Index, 2023). It includes digital foundation skills (Figure 2), life essential digital skills (Figure 3) and work essential digital skills.

The digital foundation skills are considered to be those which underpin all essential digital skills. It consists of eight tasks, which a person must be able to complete independently in order to be achieve the foundation level. The UK Consumer Digital Index showed that in 2023, 16% of adults in the UK could not complete all eight of the tasks. This is approximately 8.5 million adults. 1.3 million of this group (2% of adults in the UK) were unable to conduct any of the tasks. This 'digitally disengaged' group are more likely than the average UK population to live alone, without children in the household, have no formal qualifications, and be over seventy-five and/or retired. They are also more likely to be from lower socioeconomic backgrounds and to have a physical impairment.

Those on the other end of the spectrum, the group on the 'cusp', who can complete six to seven tasks from the foundation level show some similarities to the digitally disengaged group but differ in other vital ways.

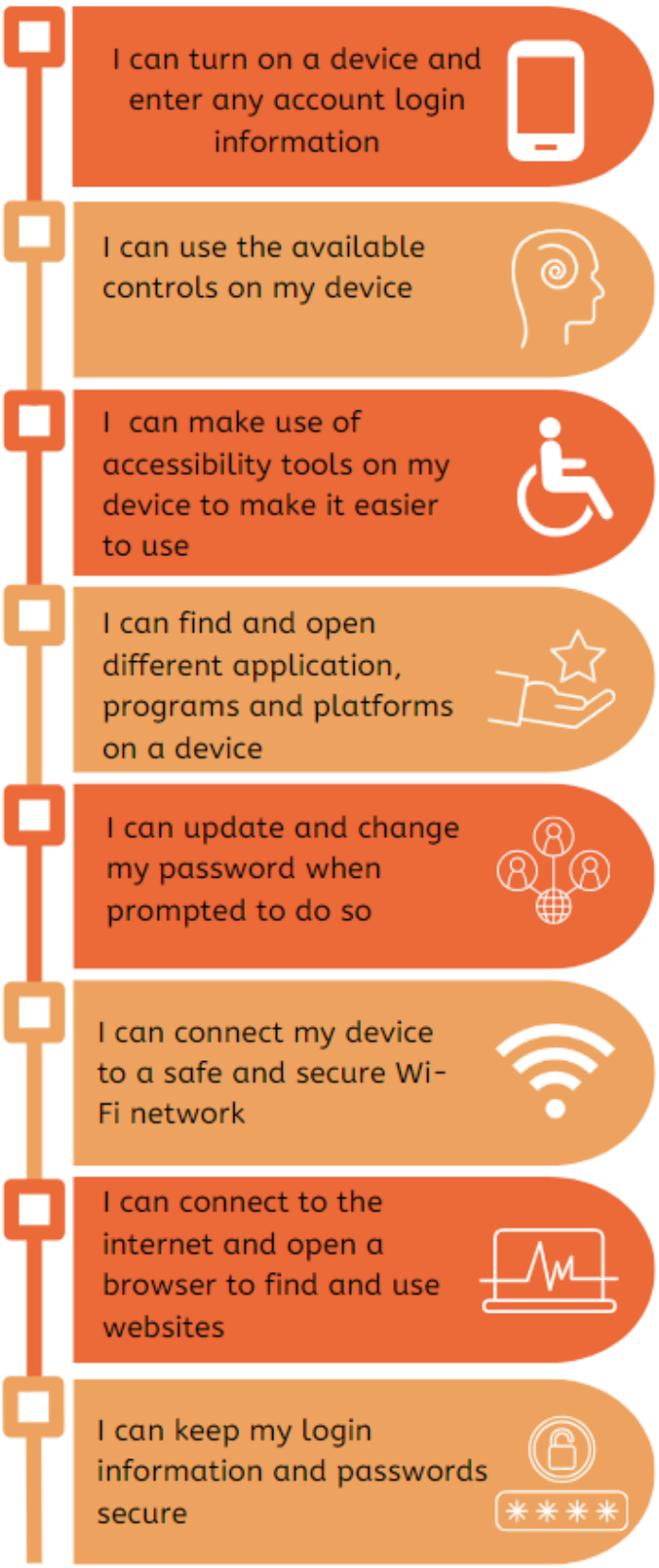

Figure 2: Digital Foundation Skills

Figure 3: Essential Digital Skills for Life Framework

The differences include lower numbers of those living alone, having no formal qualifications, and living with an impairment. The Consumer Index indicates that these factors, shown by the digitally disengaged but not those on the cusp, inform the likelihood of users to have the digital fundamentals to set them up for success online.

The essential digital skills for life framework has five categories, illustrated in Figure 3. There are twenty-six tasks listed across the five categories. To achieve this skill level, an individual must be able to perform at least one task within each of the five areas independently.

In 2023, 92% of people in the UK were able to do this. A further 5% had partial digital life skills. The remaining 3% - approximately 1.5 million people – had zero of the digital life skills and could not complete any of the twenty-six tasks. These figures again reflect the findings on foundation level skills, with the same factors being prevalent, including socioeconomic grouping, qualifications, and age. This lack of skills can be linked to access to devices; 55% of those who could not conduct any of the tasks did not have a digital device. The final measure is essential digital skills for work, which is split across the same five categories indicated in Figure 3.

There are twenty work tasks split across the five categories which include an ability to communicate on professional platforms such as Teams and Zoom, following workplace IT policies, creating and completing digital records, using appropriate software relevant to the role and tasks related to being safe and legal online. Like the essential digital life skills, an individual needs to perform at least one task within each of the work skill categories independently to reach this skill level. In 2023, 82% of the UK labour force were able to do this. 14% had partial digital work skills and the remaining 5% - approximately 1.9 million people – had zero of the digital work skills.

Skill deficit can also be linked to unemployment, with those not in employment twice as likely to lack work-related digital skills than those in employment. The Scottish Government reported in their digital strategy that even before the pandemic, a shortage of digital skills was restricting growth in the digital sector (Scottish Government, 2021, B). They argued that only 77% of people in Scotland over fifteen were considered to have foundation level digital skills in 2021, compared with the UK average of 84%. This was in a job market where 75% of all advertisements classed as ‘low skilled’ required baseline digital skills, such as using spreadsheets and word processing tools. Only 39% were able to complete the next stage of essential skills for life, considered vital for employment. This means that children and young people living in these homes are unlikely to have an adult present who can inform and develop their digital skills.

While the UK Consumer Digital Index deals with adult skill levels, the Ofcom Parents and Children Media Use and Attitudes (2019) report gives some insight into the digital skills of young people. This report reflects two sources of data: the annual quantitative tracking survey, which has been running since 2005, and the qualitative, longitudinal study, Children’s Media Lives, running since 2014. This report repeats the trend seen in the Consumer Digital Index – households with children had higher than average access to the internet at home.

Interestingly, the report analysed the digital skills gap in young people by comparing their own perceptions of their digital confidence, compared with the reality when evaluated. When asked to identify a fake profile during the survey, 23% of 12–17-year-olds who felt they could spot false information online, could not do so correctly. This disconnect between confidence and reality can also be seen in the adult report; 79% of users in Ofcom's adult survey felt they were confident using the internet, but a third did not make appropriate checks before entering their personal details online. This was more common among 16–34-year-olds, again highlighting that young people may lack the digital skills to access the internet safely that we often assume they have.

The idea that young people are digital natives is a common misconception, and not supported by evidence. The term was created in 2001 by Marc Prensky, to discuss how young people differed from their elders due to being born into a digital world. He argued that educational approaches should be altered to support this new generation of children who were 'native speakers of the digital language of computers, video games and the internet' (Enyon, 2022). This concept has since been widely criticised, yet the idea of young people as digital natives persists within our society.

Rebecca Enyon, a professor of Education at the University of Oxford and expert in technology in education, notes that the myth of digital nativism still informs discussions about the most appropriate way to provide public services and support for young people. She argues that the myth can be damaging to young people, by encouraging a 'hands off' approach from teachers or adults, who assume the child will be better digitally equipped than they are, or by assuming that everyone can access homework handed out online.

A 2020 Sutton Trust survey of 1,022 sixteen- to twenty-five-year-olds arguably debunked these assumptions, with 34% of those sampled stating that they 'didn't know where to start' when it came to online learning (The Conversation, 2021). The digital native myth feeds into the idea that technology is viewed in an inherently positive way by children and young people. This can result in service providers assuming that digital solutions are the best and most meaningful way to engage with children and young people, ignoring any concerns they may have surrounding the use of digital tools, including those regarding privacy, data collection and online safety. Furthermore, it creates a secondary myth that young people can obtain success in life purely by engaging in digital skills training; Enyon highlights an example of this in relation to the push to learn coding in schools being presented as a 'guarantee' of success for students. This type of narrow focus places all the responsibility of being digitally skilled on to children and young people themselves, rather than tackling the wider structural issues in society.

The picture of digital inclusion among young people is more nuanced than the idea of a uniform generation of young people who all have equal access to connections, kit, skills, and confidence. The Digital Poverty Alliance found in 2022 that several factors cut across age, including education, income, self-confidence, and employment status. While it is often assumed that school will function as a leveller through digital skills training, unequal access to technology and training between affluent and less well-resourced schools is often an issue. The type of digital skill being used is also important.

As predominately smartphone users, children and young people are often more confident using an application than they are at using more traditional digital tools, such as email (Citizens Advice Scotland, 2018). Furthermore, there is some evidence to suggest that there is a gender divide among young people when it comes to digital skills and confidence.

Ellen Helsper, a professor of digital inequalities at London School of Economics, noted that user research has indicated that girls have lower levels of digital confidence and so are more likely to ask for help when required. Conversely, Helsper argued that boys are more likely to think they have a higher skill level than they actually do, and so will not ask for help. This in turn results in an assumption that boys are more digitally literate, simply because they overestimate their abilities and ask for help less. This could lead to boys falling behind, or not receiving the support they require, but it could also perpetuate the idea that girls are not as capable in STEM subjects as boys. Digital nativism, if it did exist, would also require young people to have consistent access to devices and connection, which those from disadvantaged backgrounds are less likely to have.

A 2021 study, published in the Researching Education Bulletin, indicated that teachers themselves may experience digital exclusion, which subsequently impacts on their ability to navigate online learning and digital media with their students.

Finally, there has been a reduction in young people choosing to study digital subjects at school, with a 15% decrease between 2016-2018 in the number of young people studying computing science at Levels 3-5.[3] Furthermore, only 20% of the pupils studying computing science were girls, and only 16% of those pursuing computing science degrees were women, again highlighting a gender gap (McKinney, 2021).

Young people within the care sector can potentially be negatively impacted by the digital skills gaps of those care for them. The exclusion rate for looked after pupils was around seven times higher as for all pupils in 2018-2019 (Scottish Government, 2020, A). This means they face an additional barrier when accessing school based digital education.

A 2020 survey conducted by CELCIS of local authorities in Scotland highlighted this issue, specifically noting how staff in residential homes lacked the digital skills needed to support young people to develop their own digital capabilities.

Similarly, a 2021 University of Edinburgh study noted that practitioners reported digital exclusion in the form of a lack of confidence. This meant that they struggled with getting the balance between providing support and knowledge and giving care experienced young people their independence and privacy online. This lack of confidence can also contribute to an assumption that online activity is risky, no matter the context, as discussed in the Connection section above.

[3] In Scotland, this relates to Nat 5s, Highers, Advanced Highers (Level 3), HNC (Level 5) and HND (Level 5)

These issues were also raised in a 2017 report by the Children's Commissioner England, who visited residential homes and met with children in foster care. The young people interviewed felt that their own digital skills were far superior to those of the staff, and they therefore would not approach staff if they had a problem online. In the same study, children voiced their frustrations with adults in their lives – in this case, foster parents lacking understanding of the digital world – which then meant they struggled to stay connected online with others in their lives. This lack of understanding led to a lack of privacy online for children and young people in care. This pattern of restrictive behaviour and lack of digital understanding and skills within the care sector could lead to further digital exclusion for care experienced children; without access they will fall further behind their peers and without sufficient support their digital skills cannot be developed further at home. This can then have a detrimental impact on their education and future employment, and this then in turn feeds back into the 'double loop of inequalities' (The British Academy Digital Academy, 2022).

In the Scotland specific context, Citizens Advice Scotland conducted a paper-based survey in 2018 and received 1200 responses. The sample provided a close approximation to the Scottish population in terms of age, gender, urban and rural locations. The results are stark.

18% of respondents had difficulty using a computer, and 16% said they could not use one at all. 21% did not have an email address and 23% who did have email addresses checked their inbox very rarely. 50% could not attach and send a document via email without help, 50% could not download, complete, save or upload electronic forms without help. The findings did not differentiate between rural and urban, nor did they look at gender. Although this is a small sample size, the survey's value lies in the chosen methodology. The decision to distribute the survey via a paper format means it had the potential to reach the target audience – those who do not feel comfortable in the digital sphere. All too often, digital research is primarily carried out online, not reaching the very user base it aims to study. It is possible that the digital divide is wider than we think, and that predominately online user research is masking this.

In summary, digital exclusion, in the form of digital skills, still exists in the UK. The framework available gives us a good indication that digital skills levels in the population are varied, with some extremely limited and others partially or fully skilled. The limited data available on skill levels in Scotland paints a worrying picture for adult skill levels, with some lacking considerably basic digital abilities. More research is vital to assess the digital skills of the wider population group in Scotland, particularly in the context of digital acceleration as a result of the pandemic. This is especially necessary when we consider that essential digital services for those from disadvantaged backgrounds – such as Universal Credit applications – have moved to digital by default. As it stands, those who require digital assistance to access this service are not receiving support as both Citizens Advice and DWP research has indicated that civil servant staff do not have time or ability to identify and support digital needs (Citizens Advice Scotland, 2018). While it is often assumed that young people have natural digital skills, as a result of growing up in a digital world, this assumption is not reflective of reality and education is not the digital leveller that we often expect it to be.

Children in care are specifically disadvantaged because they often do not have digitally skilled adults in their residential or foster homes to assist or guide them, and their access and privacy online are restricted due to risk adverse attitudes. Furthermore, those in kinship care with older relatives, or who remain looked after at home with carers with limited digital skills, are also likely to experience these same issues around privacy and inequality. Digital inequality for children and young people, particularly those in the care sector, is perpetuated by a lack of digital skills.

Kit

Access to an appropriate device is vital for digital inclusion. Common devices include laptops, desktop PCs, smartphones and tablets. While all can potentially connect to the internet, they do not all provide the same user experience. This section will examine device cost, device type and restrictive systems which govern those devices in residential settings. Particular attention will be given to smartphones, which have become the default device for many.

The cost of digital devices has increased in recent years as a result of rising living costs, exacerbated by the pandemic. Even before this, digital devices were often assumed to be a luxury rather than a necessity. Ofcom's Communications Affordability Tracker highlights that specific population groups are more likely to have difficulty affording digital devices. These include the most financially vulnerable (42%), those on means-tested benefits (40%) and households where a resident has an impacting or limiting condition (37%). Care leavers also fall into this category, given that they often experience unstable or disadvantaged financial positions. This group were particularly at risk of digital exclusion due to their lack of personal devices during the pandemic; only 33% were supported to stay online via the provision of a new device or data from a support worker, carer or third sector funding body (CELCIS, 2021).

The pandemic highlighted the problems children and young people face when accessing suitable digital devices. Some children do not have access to any kind of suitable device; approximately 9% of households with children in England did not have access to laptops, desktop PCs or tablets during lockdown (Ruiu, 2023). Teachers also reported that students in the most deprived areas did not have access to an online device during the pandemic; they estimated that more than a third of their students did not have access to an appropriate device, compared with only 2% of children and young people in the most affluent areas (The British Academy Digital Society, 2022). Indeed, government policy during Covid reflects these concerns, with both the UK and Scottish governments launching programs to provide laptops and tablets for home-schooling.

For those with devices, the internet is primarily accessed via a mobile phone or tablet, with more than six in ten parents believing that their child has consistent access to a device suitable for schoolwork (Ofcom, 2019).

Ofcom found however that the devices children were using were not always suitable: 12% of children aged three to seventeen only used a tablet, while 5% only used a mobile phone. The result was that some were unable to complete homework or had to borrow a more suitable device.

Household devices may also be shared among multiple family members and therefore not be available when required. This implies that parental understanding of what constitutes an appropriate device, and how often a child should have access to that device, is flawed.

Type of device can have a significant impact on digital inequality. Smartphone use has steadily increased in Scotland, it is estimated that 89% of the population use a smartphone (Scottish Household Survey, 2021).

Citizens Advice Scotland's 2018 paper concluded that there are two groups of smartphone users – smartphone by choice and smartphone by circumstance. The first group can switch to a more suitable device when they find a task difficult to complete on their phone. The second group must use their smartphone for tasks it was not designed for as they do not have access to a more suitable device. Smartphone users by choice are more likely to be digitally literate and engaged than those who are smartphone users by circumstance.

Those who use a smartphone exclusively - primarily smartphone users by circumstance - use the internet and email less often and are less capable of completing basic internet tasks, such as downloading and saving forms. When surveyed by Citizens Advice Scotland, users were less likely to report that they could carry out a digital task with no problem. These findings were reflected in Ofcom's user research in 2023, which also found that the number of smartphone exclusive users is growing and that they perceived their devices to have limitations, including smaller screens, lack of data allowance and difficulty completing certain tasks. These included completing forms, working on documents and comparing services online.

Exclusive smartphone use is connected to both age and socioeconomic status. Citizens Advice found that 27% of consumers under forty-five only accessed the internet via their smartphone. For eighteen- to twenty-four-year-olds, smartphones were the most common device used to go online. Again, the Ofcom data supports this, with exclusive smartphone use found in higher numbers in those aged twenty-four to thirty-four. Exclusive smartphone users are also more likely to be financially vulnerable, and to live in areas with higher levels of deprivation. Ofcom found no discernible difference between Scotland and the rest of the UK when it comes to exclusive smartphone use. 18% of Ofcom respondents in Scotland were exclusive smartphone users and almost one third of internet users in the most deprived areas only used a smartphone.

Care experienced children and young people living in residential settings also experience problems associated with digital kit. Carnegie UK Trust, in conjunction with Glasgow City Health and Social Care Partnership, conducted a research project in 2019 which involved workshops and interviews involving care experienced young people and staff in residential units.

The findings concluded that digital kit at residential homes was often not operational, and that when it was it was not fit for purpose. Many used Enterprise technology, designed for a workplace, rather than a home, which was not meeting the needs of young people.

Specific concerns were raised about the Online Safeguarding System, which blocked many legitimate websites, including those used for college or schoolwork. Entertainment services like Netflix were also blocked in some homes, either due to the safeguarding system or out of date browsers and operating systems. Some reported that the operating systems installed – in some cases Windows 7 – were not compatible with modern educational tools. Furthermore, there were inequalities between different residential households, with some providing personal computers in individual rooms, some with shared devices available only in communal spaces and others with no devices available at all, due to breakages.

Residential unit hardware was often found to be not used at all, or broken, because it was not perceived to be useful or worthwhile by children and young people. It is unclear if any further investment was made on digital services in residential homes as a result of the pandemic, and further research is needed to ascertain what the current standards are in relation to digital kit.

When combining the inconsistent and unfit devices available in residential settings with the data on the financial vulnerability often experienced by care experienced young people, a concerning picture emerges. If care experienced children and young people cannot access the internet consistently at home or afford to own their own device with access to data, then they will experience a significant level of digital exclusion. Young people leaving school who are digitally excluded miss apprenticeship incentives and work support aimed specifically at their age group (Data Poverty Lab, 2022). Information and applications for further education courses are found online, meaning that those with care experience are potentially missing out on the same employment and education opportunities as their peers. Furthermore, in a post-Covid world, young people without digital kit and access would be excluded from remote working and learning opportunities.

Digital Exclusion and Disability

Disabled users face an additional layer of digital exclusion. The Office for National Statistics reported in 2019 that across all age groups, disabled users make up a larger proportion of adult internet non-users (The Office for National Statistics, 2019). They found that in 2017, 56% of adult non-users were disabled, compared with 22% in the population overall. The Scottish Household Survey (2020) reported a smaller gap; 19% of adult non-users were disabled, compared with 6% overall.

Two reports from 2022 provide more generalised statements, with the British Academy Digital Society noting that 'disabled people are among the most digitally excluded groups in the country' and the Digital Poverty Alliance stating that 'disabled people are more likely to be offline or lapsed users' (Digital Poverty Alliance, 2022). Disabled users are more digitally excluded for a variety of reasons, one being inadequate digital design.

While public sector websites are obliged to follow Web Content Accessibility Guidelines, this is not a legal requirement for other providers (The British Academy Digital Society, 2022).

Websites are often text-heavy, which can be difficult for those with dyslexia or users of BSL, and a study of UK council websites indicated that 74% lacked adequate contrast or navigation menus for screen readers, and many had incorrectly labelled form fields, impacting the use of screen readers and autocomplete (Digital Poverty Alliance, 2022).

Accessibility issues can be helped with assistive technology, but this can be expensive and therefore impacts those who are both disabled and in a financially vulnerable position. When poverty and disability combine, digital exclusion increases. In 2020, Citizens Advice showed that a disproportionate amount of the 2.3 million who had been unable to pay their broadband bills were disabled. Those seeking to apply for disability or health benefits were also most likely to experience difficulties when applying online; one in five could complete the application without assistance, while one in three had to seek assistance. This indicates that disabled users often face three barriers to inclusion – accessibility, cost and lack of digital skills or confidence.

Children with disabilities are at a greater risk of digital exclusion. Like care experienced children and young people, access for those with disabilities is determined through the lens of risk, rather than their rights. Interviews with educators who worked with disabled children showed that children already labelled as at risk often face restrictions when attempting to go online, and they receive less support to do so despite having contact with a wide range of educators and support workers (Hammond, 2022).

Disability and support needs for children are poorly recorded in official records. This makes it difficult to assess the extent to which care experience and disability interact to further the risk of digital poverty and exclusion.

Staying Offline

Not everyone wants to be online. There is often an assumption that new is better, that technology is the way forward, and that everyone therefore will be happy to be involved in a digital society. While digital technology and culture provides many benefits, some people choose to exclude themselves.

The Office for National Statistics reported that in 2017, the most common reason given for not having an internet connection was simply a perceived lack of need; this was especially prevalent amongst those over sixty. Similarly, disabled users were more likely to report a lack of interest in going online, with 38% highlighting this as the main reason for lack of connection. Disabled users also reported secondary reasons for not going online, such as a lack of knowledge or skills. Again, this was replicated in older age groups.

The Prince's Trust 2016 report 'Slipping Through the Net' found that those young people who are Not in Education, Employment or Training (NEETs), and those from impoverished backgrounds, often use 'offlining' tactics. This is when they choose to avoid negative experiences on digital platforms by simply refusing to use them. This same group also had concerns about the impact of the digital world on social relationships and interactions, finding digital experiences 'dehumanising' and digital acquaintances untrustworthy.

Strategy

Strategy to address digital poverty and exclusion exists at both local and national levels in Scotland.

The Scottish Government have their own primary digital strategy, along with several distinct strategies aimed at specific areas of digital exclusion – education, Covid-19 recovery, and healthcare.

'A Changing Nation: how Scotland will thrive in a digital world' is the Scottish Government's flagship strategy to tackle digital poverty and exclusion (Scottish Government, 2021, B). The most significant proposals relate to digital connection and include a planned £463m investment into superfast broadband and £25m into 4G infill. The overarching aims include expanding broadband out to rural areas, and to grow 4G and 5G networks. The 2021 report on this strategy indicated that 95% of premises in Scotland can now benefit from faster speeds and rural connections have improved – 65% in Orkney, 75% in Shetland and 79% in the Western Isles. The strategy also includes plans to ensure everyone can access services, and to provide equipment and digital skills training to those in need, including in education and workforces. This will be delivered via the Connecting Scotland programme, which involves supporting people with equipment and data packages. There is also a commitment to continue to work with partners to provide training, support, and materials to improve skills and confidence, but no specifics are given. The report notes the Digital Start Fund, launched in 2019, gave the opportunity to develop new digital skills to those on no/low incomes, who have been away from education, as well as the development of robust cyber security skills pipeline in the education sector. Enhancing digital skills is the core aim of the business support program mentioned in the strategy; plans to enhance these within the public sector include learning and coaching via the Scottish Digital Academy. Other options include using the National Transition Training Fund to support career transitions and working with the Scottish Tech Army to explore the potential for a route from volunteering to digital roles.

Connecting Scotland began as a Scottish Government Covid-19 emergency response in April 2020, initially as a plan to help those who were clinically vulnerable and digitally excluded (Scottish Government, 2021, C). In subsequent phases, attention shifted to providing other groups with digital kit, connection, and support; these included households with children, care-leavers up to the age of twenty-six, older people and those who are disabled. The program involved collaborating with local authorities, public and third sector organisations to deliver internet enabled devices, mobile Wi-Fi or data, and training and support via digital champions.

The results published in 2022 showed that 61,000 households in Scotland received a Chromebook or iPad, in addition to two years of free unlimited internet access.

A separate Scottish Government scheme provided laptops and tablets to school children to tackle digital exclusion during Covid-19, with 72,687 devices distributed in total (Scottish Government, 2023). There are currently 826,200 children (fifteen and under) in Scotland, so the number of devices distributed fell short of ensuring every child had equal access during Covid-19. This scheme did however target the most digitally excluded groups in society.

With regards to digital support, 4250 digital champions were trained. The devices were the users to keep, providing they signed a user agreement. This user agreement noted that the device was given in good faith to be used by the end user and their family, as well as a request to return the device if no longer required. A clause also noted that misuse could result in the Wi-Fi being revoked. The scheme has now been paused.

The Digital Healthcare Strategy, created collaboratively between NHS, COSLA and the Scottish Government, also aims to address digital poverty and exclusion (Scottish Government, NHS & COSLA, 2021). The focus of this strategy is on digital skills training for employees through the Digital Skills Academy. Further areas identified for development include working with colleges and universities to ensure digital skills are part of further and higher education, in preparation for joining the workforce. Finally, it includes an aim to grow a network of digital champions across health and social care.

The Scottish Government supported organisation Scottish Council for Voluntary Organisations (SCVO) created a Digital Participation Charter, which functions as a template to develop a digital society in Scotland (Scottish Council for Voluntary Organisations, 2023). Organisations can sign up to this charter to commit to five key pledges, which work towards bridging the digital skills divide. The five pledges include upskilling staff and volunteers in digital skills; supporting staff and volunteers to help others learn digital tools and skills; supporting a common language based on digital participation and channel efforts through a digital participation program so activities can build upon each other. As of November 2022, 748 organisations have signed up. The associated charter fund has provided grants to over 188 organisations to tackle inequality in society, by embedding digital skills development work in their user services.

Local authorities have their own digital strategies; a selection of these will be examined for comparison. Edinburgh City Council's 'Digital and Smart City Strategy' lists several approaches to deal with the digital skills gap, including adult e-learning opportunities and digital inclusion learning in libraries (Edinburgh City Council, 2020). Digital inequality amongst children is a particular focus, with plans to develop skills and confidence of teachers to support learning, improve access to technology for all learners and to focus on STEM subjects with the help of a digital toolset. Connectivity is also mentioned, with aims to make connections available in community spaces and to ensure low-cost broadband is available for council tenants. Angus Council's strategy takes a more hybrid approach, recognising that safety nets and digital support models would be required for those who were less able to access digital services. Their priorities are listed as maximising inclusion and reducing inequality; digital council services should be accessible to all, codesigned and should function effectively on a smartphone. Their plan involves introducing a digital inclusion programme to address skills gaps and to improve motivation and trust for those currently excluded, as well as continuing digital training for their own employees.

Dundee Council aim to become digital by default and mobile first, with an integrated system accessed by one log in (Dundee City Council, 2023). Their plan includes mobile digital services throughout the city, embracing social media as an engagement and communication tool, and provision of devices and learning opportunities to help improve digital skills.

East Ayrshire's strategy involves the creation of the East Ayrshire Digital Access Network, which compromises one hundred individuals representing national and local organisations, working together to close the digital divide (East Ayrshire Council, 2023). Actions in this plan involve improving access to device, connectivity, training, and support to develop digital skills, including a self-support training program.

Clackmannanshire Council's digital strategy involves the launching of the Digital Device Deployment Programme in 21/22, which aims to provide students with additional support needs with their own iPads (Clackmannanshire Council, 2019). Additionally, the programme aims to encourage digital collaboration with peers and using devices to learn and present learning; the scheme is due to run for ten years.

Recommendations

These findings highlight a broad spectrum of digital poverty and exclusion in Scotland, which is amplified within specific population groups, including children and young people with care experience. The recommendations below suggest ways in which the Children's Hearings System could make changes to bridge the digital divide for those with lived experience of the care sector.

1. Carry out offline user research on the experiences, desires and needs of children and young people with care experience in relation to digital exclusion and services. Look at existing research conducted by partner agencies and the voices of care experienced young people in The Promise to understand how they feel about digital exclusion.

2. Corporate Parents and/or the Scottish Government should take on responsibility for ensuring care experienced children and young people have access to the three pillars of digital inclusion: kit, connection, and confidence. This could be achieved through a multi-agency programme of work. Children and young people should be involved in the design and implementation of digital training and staff within the care system should be supported to assist young people to develop their digital skills. This training should improve digital competence, but also digital confidence, to engage in online spaces with young people.

3. Every care and support plan should reference the digital needs of the child or young person, and what barriers must be removed to allow access. Digital access should be integrated into pathway planning for care leavers and should include costs and training plans.

4. Risk adverse views need to be reassessed, in favour of a rights-based approach, in line with The Promise. The importance of the online communication in maintaining scaffolding and social connection for those in care should be emphasised and these views must be incorporated into the SCRA Digital Strategy.

5. Digital by default should not be the goal while digital exclusion persists in underprivileged groups, or it will lead to further exclusion. One size does not fit all, and we have to create an opportunity for choice. Ensure there are a range of digital and non-digital services available – these should be equally accessible and of identical quality. SCRA must consider the levels of existing digital inequality amongst out service users when planning any digital strategy.

6. Given the evidence around smartphone use any digital service should be compatible with mobiles and user friendly.

7. Ask the important questions. As we move towards a more digital approach, we must focus on the evidence of need, user preference and link into ongoing technological advances.

8. Investigate the possibility of making Children's Hearings-related websites 'zero rated'. This is when internet service providers allow consumers to access a website without charging their data plan. This should include all pages provided by SCRA, Children's Hearings Scotland, Our Hearings, Our Voice, as well as advocacy partners.

9. Remain aware of the myth that young people are digital natives. Instead of assuming that all young people are digital natives, and designing services around that idea, we should remember that children and young people are not a homogenous group; they have varying levels of access, kit, skills, and confidence.

10. In addition to filling the existing digital skill gap, consideration should be given to meet young people and children in a digital space that they already feel comfortable in– mobile technology. Consider using applications that young people are familiar with and introducing a smartphone app where service users can interact with a range of information and stakeholders relating to their care, hearings and reviews. More user research should be undertaken to assess whether care experienced people would want or need this service, and to obtain their input on how we could create such a tool, while avoiding stigma. This would need to be treated as an early intervention tool and introduced at social work contact stage.

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